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Mobilizing Technology, Transparency, and Human Networks for Deforestation-free Supply Chains: Global Forest Watch Mid-Term Performance Evaluation

October 2015

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DISCLAIMER

The opinions expressed in this report are the responsibility of the authors, and do not necessarily reflect the position of USAID.

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The evaluators were: Karl Van Orsdol, Principal, Global Sustainability Advisory Services; Pablo Reed, consultant in forestry management; and Emily Harwit consultant in evaluations and private sector development. Readers may contact the authors at kgvo@comcast.net.

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Abbreviations

CARPE	Central African Regional Program for the Environment
CBFM	Community-Based Forest Monitoring
CED	Centre pour l'Environnment et Developpement (*Center for Environment and Development)*, Cameroon
CEMDA	Centro Mexicano de Derecho Ambiental, Mexico (*Mexican Center for Environmental Law*)
CONAFOR	Comision Nacional Forestal, Mexico, (*National Forestry Commission of Mexico*)
FEMSA	Fomento Económico Mexicano, S.A.B. de C.V., Mexico *(Institute for the Promotion of the Mexican Economy)*
FLEGT	European Union Forest Law Enforcement, Governance and Trade
FUNDAR	Fundar Centro de Análisis e Investigación, Mexico *(Center for Analysis and Investigation)*
GFW	Global Forest Watch
HCV	High Carbon Value
LED	Low Emissions Development
LULUCF	Land Use, Land-Use Change and Forestry (established by the UNFCCC)
MINEPAT	Ministere de l'Economie, de la Planification, et de L'Amenagement du Territoire (*Ministry of Economy, Planning and Regional Development*), Cameroon
MINFOF	Ministere des Forets et de la Faune – (*Ministry of Forests and Wildlife)*, Cameroon
MRV	Monitoring, Reporting and Verification
NGO	Non-Governmental Organization
OECD-DAC	Organization for Economic Cooperation and Development – Development Assistance Committee (*global standards for evaluations*)
OSINFOR	Organismo de Supervisión de los Recursos, Peru Forestales y de Fauna Silvestre *(Supervision Agency for Forest and Wildlife Resources).*
POTICO	WRI's initiative on forests and landscapes in Indonesia. POTICO refers to: *"Palm Oil, Timber, Carbon Offsets"*
RSPO	Roundtable of Sustainable Palm Oil
SPDA	Sociedad Peruana de Derecho Ambiental / Prolongación Arenales, Peru *(Peruvian Society for Environmental Rights)*
TFT	The Forest Trust
TNC	The Nature Conservancy
UNFCCC	The United Nations Framework Convention on Climate Change
UN REDD+	The United Nations program for Reducing Emissions from Deforestation and Forest Degradation
USAID	United States Agency for International Development
VPA	Voluntary Partnership Agreement
WRI	World Resources Institute

Executive Summary

The Global Forest Watch (GFW) project is an interactive online forest monitoring and alert system that provides global transparency on the state of forest resources around the world. GFW provides data in a single database that allows governments, NGO's, Civil Society, local communities, academic researchers, journalists and the public to access information on forest loss with the goal of reducing deforestation, forest degradation and associated carbon emissions. The project is supported by the United States Agency for International Development (USAID), which authorized $5.5 million to provide support over the period of 2013-2017[1] to the GFW. This report serves as the mid-term evaluation of the GFW project. The evaluation was carried out between June and October 2015.

USAID support for GFW has the following 5 objectives:

- Increase transparency and improve availability and accessibility of high-quality data, information, and analysis about forests globally
- Build and sustain a collaborative network of partners, advisors, and champions to advance the GFW initiative.
- Ensure that the following key stakeholder systems have the incentives, information, tools, and capacity necessary to reduce tropical deforestation linked to major global agricultural commodities: global "innovators," commercial consumers, public policy systems, financial markets, and commodity producers.
- Empower and mobilize NGOs, researchers, and journalists to independently monitor forests and advocate for forest protection and forest rights recognition.
- Ensure that governments in key forested countries demonstrate receptiveness and willingness to engage with Global Forest Watch to strengthen forest monitoring, forest law enforcement, and forest policy implementation.

The majority of target audiences interviewed and surveyed as part of this evaluation strongly support GFW activities[2]. Stakeholders believe that GFW provides a catalytic influence on forest monitoring and that the transparent nature of the platform provides incentives for companies and governments to improve their management of forests and forest resources.

At the mid-term, some of the above-mentioned USAID objectives are in the process of being met, while improvements in program implementation are required to meet other objectives:

The first objective, related to increased knowledge and transparency regarding forest landscapes, is being met. The survey and the interviews highlight the use of the GFW to increase knowledge

[1] Cooperative Agreement No: AID-OAA-A-13-00045. Contained in letter to Dr. Nigel Sizer from Vann Rolfson, Agreement Officer, Office of Acquisition and Assistance, USAID. June 17, 2013.

[2] The evaluation team conducted over 70 interviews and received nearly 400 replies to an online survey carried out during August 2015.

and transparency across a wide spectrum of stakeholders. Survey respondents were located in 75 countries and were focused on Latin America and Asia (30% of respondents each) and to a lesser extent on Africa (15% of respondents). According to survey respondents, the elements of the GFW platform most used according to survey respondents are: reviewing maps for general information on forest loss, comparing the GFW forest maps against local maps; using fire maps and alerts; and utilizing the maps around palm oil mills to manage commodity supply chains and their risks. Regarding transparency, 273 survey respondents rated the GFW as reliable and accurate (rating of 3.83 out of 5.0) and 38 of interviewees also rated the platform as accurate and reliable.

Related to the second objective of building a collaborative network of partners, this is being accomplished to some extent through GFW's collaborative agreements with participating country governments, collaboration with private sector commodity firms, and on-the-ground activities in specific tropical forest countries, particularly in Central Africa and Indonesia. Apart from the private sector partners in Indonesia, however, the GFW local partnerships are not sufficiently developed to translate the platform data into action on the ground. The working mandates with many partners are currently not focused on advancing the GFW initiative.

The third objective is being accomplished in countries such as Indonesia and to a lesser extent in Malaysia by enabling producers of commodities to detect deforestation risks in their supply chains in specific countries. The private sector in these countries recognizes the value of the platform in carrying out their risk management assessments of their supply chain. This enables them to actively comply with their "no-deforestation" pledges. This is in turn supporting the Tropical Forest Alliance 2020 and other multi-stakeholder partnerships involved in forest management. Private sector support of the GFW was reinforced in the survey where over 81% of the private sector survey responses confirmed usage of the GFW for supply chain analysis. The interviews with the private sector in Indonesia and Malaysia indicated that the private sector uses the GFW specifically to carry out supply chain risk management assessments. The Team was not able to reach more than a few private sector stakeholders in Cameroon, Peru or Mexico. As a result, it was not possible to determine if this objective is being met in those countries.

The survey results indicated that the fourth objective is being met. A total of 125 respondents (largely from research and NGO communities) use the GFW for research on biodiversity, for determining locations and extent of forest loss in high-risk locations, and for campaigning and advocacy around forest land-use issues. Nearly 37% of the survey respondents utilize the platform for new legislation or land reforms, while over 32% use the platform for advocacy and campaigning. However, 50% of the stakeholders interviewed by phone stated that GFW did not provide incentives to local stakeholders to become engaged in forest management issues.

With relation to the fifth objective, the Team found that penetration and use of GFW in governments in forested countries, is very uneven. In Cameroon, the Ministry of Forests and Wildlife is a strong user of the platform and the IT infrastructure provided by GFW. In Indonesia, the Team spoke with 3 government officials who all use the platform extensively, but who believed much broader use within the government was possible. In Mexico and Peru, national government agencies are not currently using the GFW, as they have opted to develop their own platforms. In the on-line survey, 37% of the 123 respondents to one question noted that public officials do not support the use of the GFW data.

The Team found gaps and obstacles that present barriers to broader adoption of the GFW platform by target audiences. One obstacle cited by over 70% of survey respondents was the need for additional training to enable stakeholders to use the platform more effectively. A significant number (61%) also cited the lack of access to the Internet as a key barrier. As noted above, over one-third of the respondents noted that public officials do not support the use of the GFW data.

Phone interviews provided data on additional obstacles to a broader acceptance of GFW. These were: government and private sector policies on uploading data to the platform; a perceived lack of data accuracy around fire alerts; poor translation of the platform text; and the need for training and improved communications to ensure sufficient collaboration with NGOs operating on the ground in target countries. The interviews also indicated that a number of end users had difficulties in uploading local data onto the GFW platform.

The Team presents 11 recommendations that address the above-mentioned challenges related to meeting the objectives during the remaining time allocated. These recommendations should enable GFW to attain the USAID objectives by the project closure in 2017:

1. **Maintain a global focus while addressing local concerns.** GFW should maintain its global focus and not become distracted by demands for more local involvement. Local benefits can be best supported through a network of other organizations or the GFW/WRI offices in target countries. We recommend that GFW remains globally focused and do what it does best with regard to GIS and data management.

2. **Establish a formal relationship with local partners who can improve collaboration among stakeholders and key potential users, in order to ultimately translate data into action.** WRI should find partners locally with whom it can collaborate or subcontract to support local initiatives. The Team recognizes that GFW will need to implement a system for monitoring local partners if the organization implements this recommendation.

3. **Develop more sophisticated country specific strategies**. For each key country in which WRI is engaged or plans to engage, the organization should develop a country strategy and plan for how it will work in the country.

4. **Focus on the balance between accessibility of the platform vs. accuracy of the data.** As GFW proceeds into the second half of the USAID funded project, the program's managers need to ensure that their technology development strategy provides a balance between accuracy and accessibility, and that this balance is in accord with other components of the GFW overall strategy.

5. **Continue focusing on global actors and not local smallholders in the commodity supply chain.** While the team recognizes the strong need expressed for GFW to strengthen its support for small holders, we recommend that GFW maintain its global strengths and focus on large global organizations.

6. **Determine processes and incentives to promote local data layers (social, political, land-use designations).** In countries where WRI has decided to have a

stronger focus in future, WRI should encourage local government agencies and community groups to provide data on local layers of information that can be uploaded to the GFW platform. In addition, we recommend that GFW implement a response mechanism to keep data suppliers informed as to the timeline regarding when the provided local data will be accepted and uploaded to the platform.

7. **Integrate or link other deforestation projects, data, and alert systems into the GFW website.** While the GFW is the most comprehensive forest monitoring and alert system in operation, other organizations operate extensive data collections on forest management and alert systems, which could augment the platform's functionality and usefulness.

8. **Increase early warning capabilities and communicate limitations related to the alerts and/or alert data to end users.** NGOs in Indonesia expressed concern that the alert system was focused on government officials, and that local village leaders and NGOs did have access to the fire alerts. Both NGOs and Government Officials expressed the perspective that the fire alert data is occasionally incorrect.

9. **Expand local training and enhance platform promotion and communications.** WRI should continue – particularly in countries of local focus in the future – to work with local stakeholders on capacity building in GIS and cartography skills. In certain countries, such as Cameroon, WRI already has local partners who have volunteered to work with WRI to develop additional GIS training programs.

10. **Drive development of API's for mobile applications, interactivity and innovation.** GFW will need to continue providing resources to promote innovation and interactivity with the platform. As part of this process, it is important that WRI complete the publishing of the Application Program Interface (API) specifications. This will enable other developers, especially local users, to develop apps that serve local needs and which are driven by data on the platform. We understand that the API for the platform is partially written, and we strongly recommend this be completed and published. We believe that providing access for developers to link to the platform would in essence make the GFW platform the centerpiece of the forest data ecosystem, and help ensure the sustainability of the GFW platform.

11. **Improve translation quality.** We recommend that GFW work with Google to resolve the poor translation issues in all major user languages.

Evaluation Purpose

This midterm performance evaluation has two overarching goals. These are:

- To better understand the effectiveness of the GFW and how the GFW program influences partners, governments, private sector and civil society to reduce deforestation.

- To identify GFW's contribution to emerging outcomes within relevant agreements and coalitions – including TFA2020, Zero Deforestation Commitments and the NY Declaration on Forests of the United Nations.

To achieve these goals the evaluation team examined GFW's primary objectives:

Objective1: Increase transparency and improve availability and accessibility of high-quality data, information, and analysis about forests globally

Objective 2: Build and sustain a collaborative network of partners, advisors, and champions to advance the GFW initiative.

Objective 3: Ensure that the following key stakeholder systems have the incentives, information, tools, and capacity necessary to reduce tropical deforestation linked to major global agricultural commodities: global "innovators," commercial consumers, public policy systems, financial markets, and commodity producers.

Objective 4: Empower and mobilize NGOs, researchers, and journalists to independently monitor forests and advocate for forest protection and forest rights recognition.

Objective 5: Governments in key forested countries demonstrate receptiveness and willingness to engage with Global Forest Watch to strengthen forest monitoring, forest law enforcement, and forest policy implementation.

The primary audiences for this report are USAID and the GFW team. The aim of this evaluation is to enable USAID and GFW to make more informed management decisions about the project, related to the remaining period of implementation.

Evaluation Questions

This midterm evaluation addresses the following questions listed in the GFW Mid-Term Evaluation Terms of Reference (See Appendix 6):

1. Are the objectives for Global Forest Watch being met?
2. Has GFW been successful in contributing to the objective of the TFA 2020?
3. What particular elements of the initiative have led to the greatest adoption of Global Forest Watch by target audiences (with a focus on private sector partners in the TFA 2020 coalition), and how are those partners using the platform?
4. What obstacles or shortcomings in the project has been the greatest barriers to adoption of GFW by target audiences?
5. How can GFW improve uptake by these same groups?

Background

The initial phase of Global Forest Watch began more than 15 years ago, when WRI first established a global forest-monitoring network. WRI leveraged these developments to create forest atlases for Congo Basin countries. Since that time, the GFW platform has been enhanced in order to allow users to monitor forests on a global scale. WRI and its partners have expanded upon this forest information system by increasing the granularity and update cycles and developing applications to assist the user in finding and analyzing data.

Today, GFW has become an interactive online forest monitoring and alert system that provides transparency on the state of forest resources around the globe. It combines tree cover loss alert systems, corresponding satellite imagery, interactive maps, mobile technology and applications or "apps", to create a high level of transparency on the state of forests resources and their governance across the world. The transparency of the system is intended to enable governments, the private sector, civil society, non-governmental organizations (NGOs), and the media to monitor forest land use and drive sustainable forest management practices.

The system has been designed to enable users to create custom maps, analyze forest trends, subscribe to alerts, and to download general data for a particular area of concern. Users can contribute to GFW by sharing their own data and stories from the ground via crowdsourcing tools, blogs, and discussion groups. Apps can also provide detailed information for companies that wish to reduce the risk of deforestation in their supply chains, as well as for users who want to monitor fires across specific regions. WRI has introduced apps to help users access and analyze data. These include the "Fire app" and the "Commodities app".

Evaluation methods

The Team's approach for this mid-term evaluation involved mixed methods of qualitative and quantitative analysis. While the analysis considered the GFW project at a global level, the evaluation team selected four countries for more in-depth analysis. These countries were: Cameroon, Indonesia, Mexico and Peru. The Team conducted a desk review of documents provided by WRI; interviews with 12 key USAID and GFW management and operations staff[3]; interviews with 59 key stakeholders, mainly in the 4 "deep dive" countries; and an on-line survey sent to approximately 700 users from a GFW mailing list. The Team reviewed other deforestation programs that are currently active, and explored models and methods for determining results and impacts of open data platforms[4]. The evaluation of the GFW project was formative, with the intent that lessons will be used to inform decision making for the second half of the GFW project.

Two of the five OECD-DAC[5] evaluation criteria - relevance and program effectiveness- were considered as part of the evaluation, which addressed the key evaluation questions listed in the

[3] USAID staff were: Evan Notman, and Katherine Faulhaber. WRI staff were: Nigel Sizer, Crystal Davis, Fred Stolle, Mathew Steil, Ruth Nogueron, Lisa Johnston, Katherine Shea, James Anderson, Alyssa Westerman-Barrett, and Caroline Ciciarelli.

[4] Sources used included: Open Data Research Program (2013) and the New York University Governance lab (2014)

[5] The five OECD-DAC evaluation criteria are: relevance; effectiveness; efficiency; sustainability and impact.

Terms of Reference (TOR). Survey, desk review, and interview questions were designed to respond to these key questions. Program efficiencies were also considered, though were not specifically identified in the evaluation questions.

The evaluation was conducted in close cooperation with WRI, as part of the formative process. This resulted in shared learning between the evaluation team and WRI's M&E team and management stakeholders while the evaluation was on-going. The Team held either weekly or bi-weekly phone discussions with Katherine Shea or Dow Maneerattana in the GFW M&E team, as part of this process. After conducting the research, the Team carried out a Focus Group meeting in mid-September with approximately 25 key GFW staff in the WRI Washington DC office. The M&E Advisor from USAID Office of Global Climate Change also attended the focus group meeting. The intention of the meeting was to present the evaluation initial findings and gain insight and additional perspectives from participants in order that the GFW staff views could be incorporated in the analysis.

Data availability and quality

The Team initially requested that WRI provide 30 stakeholder contacts in each of the case study countries - Cameroon, Indonesia, Mexico and Peru - for phone interviews. From the list of 30, the Team would select 10-15 for a one-hour phone or skype discussion based on a series of a dozen questions used across countries. Appendix 1 lists the names, titles, organizations and country for each of these interviewed stakeholders. See Appendix 3 for the interview questions posed to each of the stakeholders. Interviewees were representatives from the private sector, locally based NGOs involved in the forestry and commodities supply chain, and government agencies.

To gather information from a broad spectrum of GFW users, the Team developed a web-based survey using Survey Monkey. The survey was translated to French, Spanish and Indonesian Bahasa in line with the case study countries selected. See Appendix 4 for a list of survey questions. WRI assisted the Team by advertising the survey on the GFW website as well as on Twitter, and sending GFW newsletter emails to some 700 of the GFW users to request participation in the survey. The survey contained 16 questions related to types of users; reasons for utilizing the platform; and respondent's views related to contributions of the platform to outcomes in their work on deforestation issues. The survey was carried out from August 5 to September 6, 2015.

In total, 554 users signed onto the survey. Almost 30% of respondents who opened the survey did not fully complete their responses, and the total number of responses to each question varied. A total of 390 respondents answered the majority of the survey questions. The Evaluation Team, attempted to reach a broad distribution of platform users, however, local and indigenous groups living in forest countries are underrepresented in this sample.

Neither of the above methods involved sampling or random selection of participants.

Limitations

No Access to User Identity Data

WRI does not collect information on the identity of individuals or organizations which use or download data from the GFW website. The Team recognizes that this is an important

consideration to promote the widest use of the platform. Nonetheless, this lack of information regarding GFW platform users limited the Team's ability to follow up directly with individuals to collect additional information regarding use and application of data sets.

Lack of Face-to-Face, In-Country Assessment

No in-country travel was included in the Scope of Work. This limited the ability of the Team to assess and verify actual impacts of the GFW program for analysis on the ground. Additionally, the lack of direct face-to-face conversations provided a barrier to informal conversations with the interviewees and limited the level of exchange between the team and the interviewees. On a final note, the Team was not able to carry out a check on the supply chain analysis and data provided by the private sector.

Limited Time and Accessibility of Staff and Contacts

The evaluation was mainly carried out during the summer months of 2015: July and August. These are months when for a period of two or more weeks, many of the WRI staff – and stakeholders who are users and partners of the GFW – were on annual leave. Because of staff leave time or travel, it took several weeks in some cases (Indonesia and Latin America) to obtain information on key stakeholders whom the Team would contact for interviews. These resulted in limited opportunities for the Team to follow-up and obtain additional contacts for phone interviews. The Team also had difficulty in interviewing several government officials in Indonesia in part due to the ongoing fire season.

Mitigation of Constraints

The Team worked with GFW's M&E staff to mitigate some of the above-mentioned limitations with the following actions. Firstly, WRI assisted in attracting as many survey responses as possible by advertising the survey as a pop-up on the GFW website and by emailing approximately 700 stakeholders twice during the survey period regarding the importance of feedback. The evaluation team recorded nearly 550 survey responses and 390 respondents fully completed the survey. This represents a high response rate – though it is not certain how many of the 700 people who were contacted by email filled in the survey. Some users who filled in the survey came directly from accessing the website and by clicking on the link to the survey provided there.

Secondly, the Team incorporated flexibility into the work plan and time schedule to devote a few additional weeks to investigate additional interviewee sources in Latin America – such as in Colombia and Argentina – as well as in Indonesia and Cameroon, particularly in the private sector. This helped to round out the information obtained by WRI stakeholder interviewees and resulted in richer information that was necessary to draw some of the evaluation conclusions and formulate recommendations. Thirdly, the team worked closely with the GFW M&E staff throughout the evaluation and these frequent contacts helped to move the process forward when there were hurdles to receiving feedback or information needed.

Findings

Country Interviews

Cameroon

Introduction
WRI had been active in Cameroon since 2002 when it opened an office in Yaoundé. WRI-GFW in Cameroon has been supported by the *Central African Regional Program for the Environment*, or "CARPE", also a USAID-funded project, which addressed deforestation in multiple countries in the Congo River Basin, between FYs 2002-2013. Since October 2014, GFW work in Cameroon has been supported by non-USAID-CARPE funding. With the help of GFW, the Cameroon Ministry of Forestry and Wildlife (MINFOF) was the first government agency in Africa to develop a national atlas mapping the country's forests and their use. The main drivers of forest change in Cameroon is slash and burn agriculture and illegal and commercial logging. As a result of over 13 years of engagement in Cameroon, WRI has developed strong ties with some of the staff in MINFOF, and with Cameroon staff in local NGOs - some of whom have been working with WRI for as long as 10 years.

The 11 interviews related to Cameroon included 1 private sector stakeholder, 4 officials related to the Ministry of Forestry and Wildlife and 6 non-governmental organizations.

Strengths
Government & NGOs. The GFW program has enhanced the capacity of civil servants in the MINFOF to manage data related to deforestation, and, as a result, to monitor forest lands more effectively. In 2015, WRI is in the process of developing a Memorandum of Understanding with the Ministry of Economy, Planning and Regional Development, or MINEPAT. By virtue of its title, this ministry appears to have more power than the MINFOF with regard to governance of land use in Cameroon and has the potential to influence actions of other ministries related to land use, such as the Ministry of Agriculture and the Ministry of Mines. MINEPAT should be able to act as a mediator or arbitrator in land-use planning with other Ministries concerned with land use issues.

In addition, WRI has a strong reputation for capacity building in developing Cameroon's forest maps and working with, and training, many local cartographers. One element that was emphasized was the high quality GIS trainings that WRI had provided. Interviewees stated that GFW information from the platform is being used mainly for monitoring of concessions and for verification and geo-referencing of timber products. There is a consensus with leaders in both government and among non-profits that the information on the platform is accurate and reliable, though there were concerns from 6 of 11 people interviewed that the data was not 'real time' enough since the majority of data was only updated annually.

Private Sector. Despite numerous efforts to reach private companies, the Team had little success. We were only able to speak with one private sector representative now based in Europe, who had previously worked for a timber association verifying sourcing of wood products. The only company spokesman we interviewed in Cameroon spoke highly of the national forest atlas as "one of the best tools available" for forest planning. This representative worked closely with the regional representative of MINFOF in SW Cameroon to monitor land parcels allocated to his company.

WRI/GFW Staff. All stakeholders interviewed in Cameroon expressed strong support for the current WRI Cameroon National Coordinator, as well as for previous and/or international WRI staff in Cameroon. Interviewees regretted that there was not additional staff available in Cameroon who could spend more time outside the capital city of Yaoundé.

Weaknesses

The stakeholders identified a number of areas for improvement. Many of the issues raised were related to stakeholders wanting WRI to engage more in Cameroon. These included:

- The greatest area for improvement identified by all (100%) local stakeholders interviewed was the need to have an organization help locally to "*turn the data from GFW into action*". Interviewees felt that because WRI is held in such high regard for its accuracy and transparency of data, the organization would be well suited to become a coordinator or facilitator to engage local partners and/ or stakeholders from all sectors (government, NGOs, private sector, academia, and media) to take action against deforestation. WRI is considered to be "an honest broker" in this area that could potentially work with stakeholders to engage in greater transparency in forestry management, land use allocation and driving local initiatives among all actors.

- WRI has little to no contact with the local private sector. As noted earlier, the Team was only able to speak with one local company official, who confirmed that conversations with the private sector were very difficult to achieve, even amongst those companies operating in Cameroon. One interviewee felt that WRI should develop partnerships with organizations that could work more closely with private companies, in order to minimize major issues related to illegal practices and corruption.

- Eighty percent of interviewees in Cameroon felt there was a lack of alternative data layers. The stakeholders mainly mentioned the need to have data related to mining, logging, and agriculture. There was also the recognition of the difficulties in obtaining this data since the relevant ministries do not have a history of cooperation with MINFOF. Some stakeholders noted the lack of transparency and corruption regarding mining permits. Interviewees stated that it would be critical to get all ministries on board to share local data related to other sectors' concessions and permits in future. Without this data, it would be impossible to monitor forest land-use. GFW is focusing its collaboration with MINEPAT on the development of a land-use planning support platform that brings all major forest land use sectors together and which will improve coordination in land use allocation and monitoring.
- The notion of the data being 'near real-time' as announced on the GFW website was raised, and only 45% of the interviewees felt the data was sufficiently up-to date for their purposes related to checking on concession boundaries and permitting. While it was important to have transparency in data, the fact that most information was only updated annually posed challenges; particularly in working with companies to verify deforestation impacts along the product supply chain.
- As noted above, stakeholders requested greater on-the-ground presence – particularly outside Yaoundé – and stakeholder partnerships for training.
- Nearly three quarters (73%) of people interviewed felt that additional training in GIS and use of the platform would be helpful for government officials, as well as for schools, universities and

other NGOs. Even if people can access the platform data, stakeholders often felt that not everyone can understand the relevance of the data or how to use it.

- Two of the respondents were specific in their suggestions; they communicated interest in partnering with WRI to develop training for NGOs and government peers. Mr. Gaston Buh, GIS Officer at the WWF local office and Mr. Mor-Achankap Bakia in the SW regional office of MINFOF both wanted to be acknowledged in this report for their strong interest in cooperating with GFW in Cameroon on peer to peer training in GIS data management.

Indonesia

Introduction

Prior to the start of GFW, WRI had been active in Indonesia for over 10 years, and involved in forest-related projects such as the Governance of Forest Initiative and the Forest and Landscape Project (formerly known as POTICO – Palm Oil, Timber and Carbon Offsets). Through this long-term effort, WRI has developed ties with Indonesian government officials, NGOs, and private sector stakeholders - especially large firms involved in the oil palm industry. WRI established a local office in Jakarta in June 2014, which provides a greatly improved communication conduit between the organization and the stakeholders in the country and the region.

The interviews of stakeholders in Indonesia included 9 private sector stakeholders, 3 government officials and 4 non-governmental organizations.

Strengths

GFW's strengths in Indonesia are: promoting local data uploads to the GFW platform; linking with leading private sector palm oil producers in their efforts to carry out commodity risk assessments; and providing enhanced fire monitoring systems for both the government and the indigenous communities. These strengths are augmented by the local WRI and GFW Staff.

Government. Despite numerous attempts, the Evaluation Team was not able to obtain phone interviews with many of the government officials originally suggested as contacts. Those three who were able and willing to speak with the Team stated that the GFW platform is both accurate and reliable. These officials found the platform a particularly useful tool to compare with their own maps and identify errors and omissions in the paper-based maps. Some of the government officials interviewed are also active users of the GFW Meta data.

Private Sector. All of the 9 private sector stakeholders voiced strong support for the value of GFW in their publically affirmed no-deforestation pledges. Companies utilize the platform to carry out risk management assessments of each of the mills from which they receive processed material. These companies essentially draw a 50-kilometer circumference around each of their mills and use the platform to assess all areas of potential deforestation and High Carbon Value (HCV) forests. As such, the platform provides a critical early warning and rapid assessment of potential deforestation risks for each private sector company at the mill level. Several private sector interviewees noted, however, that not all mills are identified on the GFW platform. Mill data is voluntarily reported by companies and the RSPO. No other data on mills is publically available.

The Team attempted to speak with firms which operate in the palm oil sector of Indonesia but who are not members of either the RSPO or the Indonesian Sustainable Palm Oil organization. These are companies who have not committed to a "no-deforestation pledge". None of those firms responded to repeated requests for an interview.

GFW Fire Identification. All of the government officials and NGO representatives were supportive of the existing fires application, and strongly advocated for the increased use and sophistication of the tool. While all three of the government officials discussed challenges in using the fire data (see below), they asserted that the GFW Fires is a critical tool in alerting the government to large fires, and in providing a means of targeting the location of fires and combatting them.

WRI/GFW Staff. During the interviews, many stakeholders voiced strong support for the individuals working in the WRI Indonesia office. These individuals are recognized as leaders in driving private sector collaboration with GFW and in communicating on a regular basis with government officials. The local office also allows local NGOs and community representatives to speak more directly with WRI and GFW representatives in Indonesia, instead of having to communicate via the staff in Washington DC.

Weaknesses

Stakeholders identified a number of weaknesses related to the use of the GFW platform. These included:

- There is a need for stronger collaboration with stakeholders or a local network of partners (71% of interviewees). Both the private sector and NGO stakeholders spoke of the need for WRI to drive a stronger community user and stakeholder network of partners. These respondents believed that such a network would allow various sectors to understand the goals and needs of each other, and promote solutions to problems of deforestation and other common challenges. All of the government and NGO stakeholders, and four of the private sector stakeholders, spoke of the need for a greater on-the-ground role by WRI in supporting actions required to achieve the goals of the GFW platform around reducing deforestation.
- Nearly three quarters (71%) of stakeholders voiced strong support for the inclusion of additional data layers (social and jurisdictional) into the platform. They believed these additional data layers would provide significant value in determining and assessing land use and management questions.
- The opportunity and ease of uploading data into the system was found deficient by some of the government and NGO stakeholders. They noted that while WRI has provided information on how to submit data for inclusion into the GFW platform, once a request is submitted, local data submitters often received no response on the status of the submission.
- Two of the NGOs and one government official spoke of a perceived lack of accuracy in the fire data. They noted that once the platform had identified a fire location, local officials who were summoned to the area could not find the specific fire on the ground.
- There are few interactions of GFW staff with smallholder farmers. Four of the NGOs and two of the private sector stakeholders suggested that GFW drive an engagement program

with small holding oil palm farmers who represent 40% of palm oil production in Indonesia.

- The Platform has poor translation quality. All three of the government officials noted that the translation of the platform into Bahasa was inadequate and too technical for many users in the field.

Latin America – with focus on Mexico and Peru

Introduction

As of July 2015, GFW has been working in Latin America for less than 18 months. This is a very short time to achieve results from the project. While 60% of interviewees believed GFW could enhance the capacity of local stakeholders to meet land use and forest management objectives, less than 25% said they were actively using the platform to inform any legislation or policy or for devising any new forest management strategies, and only 10% mentioned they were employing it for biodiversity management actions.

A total of 18 interviews were carried out across the region, involving 21 stakeholders: 12 individuals from the NGO sector, 5 from the private sector/ consultants to companies, and 4 representatives from 2 major government agencies. While the bulk of people interviewed concentrated on the two countries selected for deeper case study examination (Mexico and Peru), the Team also spoke with stakeholders from Argentina, Brazil, and Colombia.

In Latin America, a different set of political, institutional, and monitoring capacities exist than those in Asia and Africa. There are also different agents and drivers of deforestation, land tenure regimes and political and administrative processes to decentralize decision-making related to forest and land use. The key drivers of deforestation are in agricultural production (industrial and semi-industrial for soy, beef and palm oil, cocoa), energy/mining (formal and illegal), and in the development of infrastructure. While there is a general political and administrative trend to enhance data transparency, Latin America has difficulty in establishing reliable and available data on forests and natural resources in practice. Many of the NGO and civil society interviewees welcomed the idea that the platform can help confront these dissemination challenges.

Nevertheless, both Mexico and Peru have most recently opted for a top-down structure and approach for their Monitoring Reporting and Verification (MRV) systems with regard to forests. They have a seemingly proprietary view to their own MRV systems, and appear unlikely to adopt GFW as the primary source of data. As a result, GFW staff and partners will need to identify which civil society groups, small businesses and/or independent citizens have the ability to make use of GFW data at the local level.

Mexico
In Latin America, WRI has made most headway to date in Mexico.

Strengths
GFW is held in high regard in Mexico. Over 50% of the interviewees (five NGO's, one government representative and two companies) considered GFW as a reliable and accurate tool for the enhancement of forest management and governance in their work. The few private sector stakeholders interviewed also expressed enthusiasm about the use of the platform in their operations, noting their experience in recent years with other WRI initiatives around water resources[6]. Critical partnerships are being developed by GFW, with a strong preliminary engagement with CONAFOR, one of the most significant public institutions regarding forest governance in Mexico. WRI has also established ties with NGOs in Mexico, such as Reforestamos Mexico, CEMDA, Fundar, and The Nature Conservancy.

Weaknesses
Despite good perceptions of the platform and its data in Mexico, active use of GFW has been minimal. This is mostly due to the relatively short period of engagement in the country, as well as the limited personnel and resources that have been devoted to GFW thus far. Several issues were identified that prevent greater adoption, use, and impact of the platform. These include:

- All of the users in Mexico spoke of a perceived lack of a clear strategy and focus on the part of GFW and WRI.

- Mexico's government receives considerable local and international support to develop its own national MRV system. As a result, the majority of interviewees commented that the GFW platform would likely not be used for monitoring purposes at the national level. Local governments, municipalities and other local authorities were suggested as appropriate audiences for GFW engagement where there is unfulfilled demand for local data.

- Interviewees spoke of a perceived lack of current capacity on the ground to be able to promote, train, and increase the applicability of the platform in Mexico. The stakeholders highlighted the lack of a larger network of strategic partners and WRI staff to support the users of the platform in-country.

- One quarter (25%) of users perceived the process for uploading their own data into the platform to be cumbersome and bureaucratic. While the technical requirements and specifications for uploading data were clear from information available on the website, four interviewees noted the need for this process to be made consistent and/or to be streamlined. Stakeholders also requested feedback from WRI regarding how and when decisions are made for inclusion of local users' data in the platform.

- Nearly three quarters (70%) of the interviewees mentioned that the website should be improved by fixing the translation that the Google tool provides. Some information

[6] Aqueduct: http://www.wri.org/our-work/project/aqueduct

provided in Spanish does not read clearly and has discouraged users from exploring the platform further.

Peru

Given that engagement in Peru only began this year, the Team found only two NGOs and one government agency actively using the platform. GFW has just begun building relationships in Peru, and it will take time for this engagement to translate into results.

Strengths

In all five interviews, held with the Peruvian stakeholders, respondents stated they consider GFW as an accurate tool for the enhancement of forest management and governance in their work. There is a strong preliminary engagement of a few key forest governance institutions. These include OSINFOR, partner NGOs and civil society organizations, such as SPDA and the Instituto del Bien Comun.

Weaknesses

As with Mexico, despite a good perception of GFW, the instances of active use or contribution to policy, governance, and commodity/private sector issues in Peru have been minimal. Only one national NGO and one public institution claimed active use of the platform. The main weaknesses identified were:

- All users in Peru spoke about a lack of a clear strategy and focus on the part of GFW and WRI staff. They believe the platform has insufficient focus on those agents and drivers specific to the region - predominantly mining and illegal logging. Stakeholders also noted a lack of additional and complementary local layers of data, as in Mexico, with regard to the same lack of data on land use/concessions/political boundaries, socio-economic data, and mining.

- The Peruvian government receives considerable support to develop its own national MRV systems for forests. The preliminary system in place has already begun to inform some of the countries' Reducing Emissions from Deforestation and Forest Degradation (REDD+) readiness, LED (Low Emissions Development), and other land use policies and strategies. As a result, the majority of interviewees commented that the GFW platform would probably not be used for monitoring purposes at the national level. Interviewees also mentioned that local governments and municipalities could benefit from the use of the platform.

- Eighty percent of interviewees mentioned a lack of local stakeholder engagement by GFW. Interviewees in Peru spoke of a perceived lack of current GFW capacity on the ground to be able to promote, train, and increase the applicability of the platform. They spoke of weak engagement with regard to building a larger network of strategic partners and data contributor's in country.

- The issue of a perceived cumbersome and bureaucratic process for users to upload their own data unto the platform - much like that mentioned in Mexico - was echoed in two of the five interviews in Peru.

Other Stakeholder Interviews

Introduction

In addition to the country-specific interviews, the evaluation team interviewed 10 people who were familiar with the GFW, but did not operate on a country or regional basis. These stakeholders included staff from the University of Maryland's Department of Geographical Sciences, Staff from the Government of Norway's International Climate and Forest Initiative in the Norwegian Ministry of Environment, the Global Canopy Programme in Oxford, The Forest Trust, Mark's and Spencer's sustainability manager, and the United Nations REDD+ organization.

Strengths

All interviewees in this group expressed strong support for GFW and its usefulness in tackling deforestation issues. One of the donors stated, " *The value of GFW is catalytic, and highly strategic*". That interviewee explained that before GFW, the lack of availability of transparent information allowed governments to avoid facing the impacts of their policies on forest management and oversight. In the view of this donor, GFW provides a "*massive time and cost savings for all stakeholders in assessment of critical forest management challenges in individual countries and at the global scale. GFW forces governments to respond to international concerns about forests when those governments would rather not respond*." GFW provides the critical data for donors who are funding results-based projects and programs. The transparency of the data drives government behavior, and highlights insufficient government actions.

Weaknesses

The interviewees voiced somewhat conflicting views on the weaknesses of the GFW program. They noted the conflicting pressures on the GFW program to be both a provider of a transparent global data platform and portal for others to use, as well a program involved with producing outcomes at the global and local levels.

One (non-USAID) funding agency believes that GFW was in danger of losing focus on its strengths of global data management and forest governance. This funder expressed concern that the GFW team was being pulled into areas where they lack expertise and resources, namely more on-the-ground engagement. Six stakeholders interviewed voiced the opposite opinion: that GFW needs to work more closely at the local level to ensure that the data provided by the platform was most effectively used on the ground to drive outcomes. These stakeholders perceived a lack of focus by GFW to drive engagement among various user groups utilizing the platform.

All agreed that a key weakness of the program was the perceived conflict between global and local results. As a group, these stakeholders believed that GFW could not, by itself, be effective in ensuring outcomes on the ground. They believed that GFW must develop greater partnerships with NGOs (either local or international) and find partners to attain overall goals at the local level.

INTERVIEWS WITH USAID AND GFW

The evaluation team interviewed two USAID staff and 10 staff from GFW. In addition, the Team carried out a workshop that included the participation of approximately 25 GFW staff and one USAID staff member. During these interviews and the workshop, two key challenges were reiterated: 1) how to translate data into action among local stakeholders on the ground and get local partners engaged rather than relying on WRI staff to engage, and 2) ensure that GFW remains a globally focused program and, despite considerable pressure from local NGOs and others, not to dilute resources to address local actions.

Survey Analysis

Introduction

The survey questions and response options are presented in Appendix 4. Appendix 5 presents the detailed findings and responses from each of the 16 questions posed.

Overview of survey respondents

The majority (71%) of the 390 respondents replied to the survey in English, with 16% responding in Spanish, 9% responding in French, and 4% responding in Indonesian Bahasa. The largest sectors represented included NGOs (31%) and University Staff or Students (25%). The private sector represented nearly 25% of the total while government represented 13%.

The largest group of respondents was technically focused. Of the 303 responses to the question concerning the survey respondents' profession, 37% identified themselves as technical staff, researchers or GIS and remote sensing professions. Senior managers represented approximately 16% of the respondents.

The survey received responses from individuals in 75 countries. The greatest number of responses came from the United States, Indonesia, Mexico, Brazil, Malaysia, UK, Canada, India, and Cameroon. This demonstrates the widespread use of the GFW platform on a global basis, as well as a balanced distribution between tropical forest countries and other countries.

In terms of geographic focus, a total of 117 respondents indicated a country-level focus, with the largest group (17) focusing on Indonesia, followed by India, Mexico, Malaysia, Brazil, Peru and Columbia. A slightly larger group (166) indicated that they had a regional focus, with 30% each covering Asia and Latin America and another 15% working on deforestation in Africa.

Use of the GFW *Applications*

A total of 291 responded to the survey question regarding which sections of the platform were most used. Of this total, 100% indicated that they use the primary platform. The second largest number of respondents (86) used the Fire App, followed by the Commodities App (61).

Use of the GFW *Platform*

A total of 291 people responded to this question. Respondents provided exceptionally strong evidence of the usefulness of the GFW platform. Eighty percent of all uses centered on obtaining maps and data on tree cover. Some 61% of the uses included obtaining data and maps on land use. The third most cited use (43%) centered on obtaining maps and data on biodiversity. The

fourth most stated use was obtaining maps and data on fires (30%). Some 31% of the respondents cited either uploading or downloading data from the open data portal as a major use of the platform.

Platform Ratings

Overall, the users gave the GFW platform positive ratings. On a scale of 1(lowest rating) to 5 (highest rating), the platform was rated between 3.78 and 4.09 for reliability, accuracy, interactivity, usefulness and ease of use.

Average Scores Rated by Survey Users

Reliability Average Score	Accuracy Average Score	Interactive Average Score	Usefulness Average Score	Easy to Use Average Score
3.88	3.78	4.00	4.09	3.94

The rating results were analyzed according to the sector in which the respondents worked. These sectors included government, NGOs, private companies, university staff or students and media. The media rated the platform highest (average rating of 4.4), while Government respondents rated the platform the lowest (average rating of 3.7). Within each sector, usefulness was the highest rated attribute (average rating of 4.1) while accuracy was rated the lowest (average rating of 3.8).

Platform Contribution to Action on the Ground

The survey respondents provided considerable support for the practical usefulness of the GFW on-the-ground. A total of 283 respondents indicated one or more outcomes, which are at least partially attributed to the use of the GFW platform. A total of 39% of the respondents cited the measuring and monitoring of projects as a contribution from GFW data. Approximately 39% of the respondents also cited comparing the GFW data with local land use as a principal contribution. A total of 32% of the respondents cited research as a primary contribution and 29% of the respondents cited new legislation or government reforms related to land use planning as a primary contribution.

Limitations of the GFW Platform

Users were provided the opportunity to address factors limiting the greater use of the GFW platform. A total of 123 respondents checked off at least one of five issues (from a list provided in the survey) that limit greater use of the GFW platform. The primary issue cited by over 70% of respondents was the need for additional training required to enable stakeholders to operate the platform more effectively. A significant number (75 – or 61%) also cited the lack of access to the Internet. Approximately 37% of the respondents noted that public officials do not support the use of the GFW data. Nine percent of the respondents indicated that the information contained on the platform was not relevant to local issues.

Issues Cited on Limitations to using the GFW Website

Issue	Total number of issues cited
More training is required on how to use the platform	88
Lack of access to the internet or limited bandwidth	75
Government or public officials do not support the use of GFW Data	45
GFW information is not considered accurate or reliable	37
Information on the platform is not relevant to local issues	34

Implications of Survey Results

The overall results of the survey provide useful insights on the GFW platform and uses:

1. **GFW has a broad community of supporting users on a global scale.** The survey results clearly indicate that GFW has a broad community of supportive users on a global scale. This is evidenced by:
   - *A high number of survey respondents.* Even with the email sent to the WRI mailing lists and the GFW platform highlighting the survey, the number of respondents to the survey was significantly greater than expected by the evaluation team. The Team expected a 10% response rate to the approximately 700 emails sent by WRI. The actual response rate appears much higher, perhaps as high as 40+ %.
   - *Broad geographic distribution of users.* With responses from 75 countries the GFW platform has clearly attracted a global base of users.
   - *Diverse sector of users.* The primary users of the platform come from multiple sectors including NGOs, university teachers and students, the private sector and, to a lesser extent, government officials.
   - *High approval rating.* All sectors rated the platform essentially in the top quartile with particular high ratings on usefulness.

2. **GFW Platform has spawned many uses and supported outcomes for managing and monitoring forests.** Results from Questions 10 and 12 illustrate that the approximate 390 respondents to the survey listed 1) a high number of uses of the platform, and 2) that users of the platform believed the information from the GFW led to direct benefits on the ground. This demonstrates that the platform provides a basis for management and good governance of forests, as well as managing risks associated with commodities.

3. **Limits to a broader use of GFW.** The survey indicates that the GFW faces several limitations to a broader use of the platform. The relatively high number of respondents indicated more training is required for effective use of the platform illustrates that GFW needs to consider new approaches to assisting and training local users. In addition, the numbers of users citing the lack of accuracy, combined with the somewhat lower accuracy ratings on Question 11 illustrates that users perceive that accuracy, and perhaps timeliness, could be improved. This corresponds with similar results from the interviews.

Comments on Differences between Survey and Interview Results

The data presented above provide two interesting perspectives: detailed perspectives from 59 stakeholders operating largely in the 4 target countries, and on the other hand, a survey of some 390 users from 75 countries. The Team found some noteworthy differences in the answers from the two datasets.

1. A little less than one-third (29%) of the survey respondents noted their use of the GFW platform for legal action, while only 2% noted of the interviewees cited that they used the platform for legal action. We believe this difference might be due to the fact that one-third of those citing legal action in the survey came from non-tropical forest countries, such as Belgium, France, US, and Italy and may have answered the survey question from a global policy perspective, rather than an on-the-ground legal or activist perspective. It may well be that the Team's interviewed candidates did not include those who are more closely involved in the use of GFW to address legal issues, namely individuals from the equivalent of the Attorneys General or forest law enforcement and protection communities.

2. The third most frequently cited use of the platform in the survey was obtaining maps and data on biodiversity. This use represented 10% of all uses cited (125 users). In the interviews, on the other hand, only one stakeholder cited biodiversity as a key use for the platform. It is possible that researchers assessing biological diversity issues are doing so in an academic setting. Of the 125 users who cited biological diversity uses, 34% were in in countries that do not contain tropical forests. Additionally, 90 of the 227 who cited an outcome of the platform (Question 12) cited research as a key outcome. This suggests that a relatively high proportion of the survey respondents are research-focused as opposed to focusing on the ground.

3. Only 7% of the uses cited in the survey revolved around uploading local data to the GFW platform. In the interview data, 78% of the respondents listed having local layers of data (such as information on mining, agriculture and socio-economic data) uploaded as critical for end-users to use the platform more effectively. We believe this is difference could be due to the fact that those interviewed were directly involved in addressing local issues and therefore required additional local data in their work. It appears that many of the survey respondents were using the GFW for research purposes rather than implementing solutions on the ground.

Review of other existing deforestation projects or programs

Many organizations exist which are devoted to some aspects of forest management, deforestation, and environmental data. The Team did not attempt to analyze or assess this large group of organizations and programs in any depth. We recognize, however, that GFW operates alongside other programs and approaches. In this evaluation, the Team received recommendations about, or spoke directly with, other organizations devoted to forest management and transparency. In a few instances, these organizations provide forest information, stakeholder engagement, and alert systems that could supplement the GFW program. Some of these programs are devoted to local alerts and data, as opposed to the globally focused GFW.

One key focus of these systems is the participation, monitoring and reporting by persons living in or near forests. This is referred to as community-based forest monitoring (CBFM). The participation of indigenous inhabitants in providing local data for monitoring will likely provide the means to deliver the necessary ground data to supplement government-based data, and support local, national and international undertakings on forest conservation. In addition, this local monitoring can provide additional data layers for the GFW platform as well.

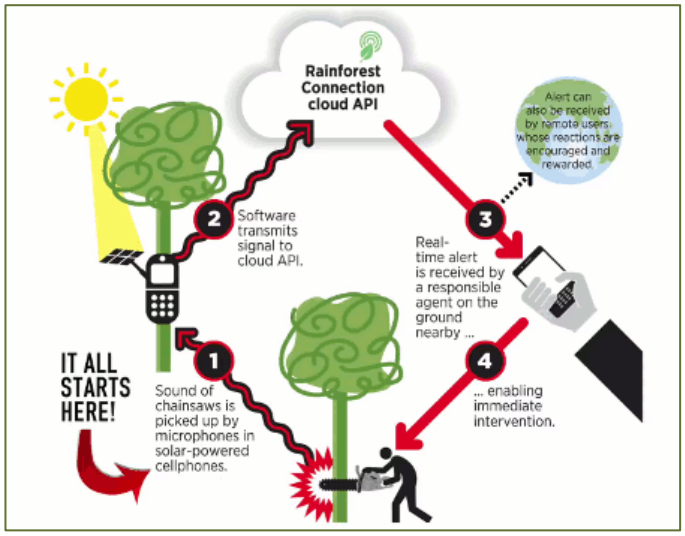
For example, the Global Canopy Programme (www.globalcanopy.org) is spearheading a program through its Forest Compass project to expand the input from community-based groups living or operating in forests into forest management activities. Community based local information is required for international forest monitoring systems and conventions such as REDD+, European Union's Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, and the Convention of Biological Diversity. Under the FLEGT Action Plan, bilateral agreements called Voluntary Partnership Agreements (VPAs) are negotiated between the EU and timber-producing countries, and indigenous communities are included in the process of negotiating these VPA's. Countries undertaking climate mitigation activities through the REDD+ program will require datasets on local deforestation and degradation drivers, social indicators, and biodiversity metrics to develop comprehensive national forest monitoring. The Global Canopy Programme is focusing on developing and spreading open source technology solutions on the ground to maximize the ease of local monitoring and the quality of the data received.

The Global Canopy Programme's Forest 500 project identifies, ranks, and tracks the governments, companies and financial institutions worldwide that, together, could virtually eradicate tropical deforestation. The Forest 500 project has developed methodologies to identify and rank 500 stakeholders based on their public policies and potential impacts on forests related to forest risk commodities.

The Forest 500 project has deep relationships with organizations that could benefit from using the GFW platform. The Team understands that WRI already partners with the Global Canopy Programme. While this organization has limited capacity, the Team believes that closer collaboration could greatly benefit GFW's broadening of the user base and provide opportunities for training and on-the-ground support for the platform without additional WRI or GFW staff.

Another example is the Rainforest Connection which "*transforms recycled cell-phones into autonomous, solar-powered listening devices that can monitor and pinpoint chainsaw activity at great distances*" (rfcx.org website). This provides a real-time logging detection system, pinpointing deforestation activity as it occurs.

Illustration of the Rainforest Connection Project



Source: rfcx.org

The evaluation team recognizes that these organizations do not attempt the global scope or impact of the GFW platform and do not have the technical or analytical sophistication demonstrated by the GFW staff. They are not substitutes to the GFW platform. But they do demonstrate that partners are available for innovative approaches to working with local stakeholders that could enhance GFW outcomes.

Conclusions and Recommendations

1. General Conclusions

Stakeholder feedback supports the conclusion that the Global Forest Watch program constitutes a critical initiative to provide much needed data and transparency in forest management around the world. The benefits of increased transparency and accountability of data are confirmed by stakeholders from government, NGOs, media, the private sector, and the general public.

While stakeholders in the interviews were positive regarding the accuracy and trustworthiness of the data, they highlighted weaknesses as well. Translating the data and platform to "action on the ground" with local stakeholders - as highlighted in the Theory of Change for this project - was the #1 issue identified (See Appendix 6 which depicts the Theory of Change developed for the GFW project). The majority of WRI's GFW staff concurred with this viewpoint in interviews throughout this evaluation.

In addition, some users continue to be frustrated on-the-ground by not being able to locate fires reported by the system. The team understands this could be due to data limitations and communication issues. Additionally, the protocols of contributing local data for inclusion on the GFW platform needs to be more straightforward, and GFW needs to improve its communication process with such users.

Within the private sector, the palm oil industry operating in Asia was the most supportive of the GFW. The firms who have signed onto the "no deforestation pledge" are strong users of the system. They depend on the GFW to carry out required risk management analysis for each of the mills providing them with processed materials.

Government stakeholders in Cameroon's Ministry of Forests and Wildlife (MINFOF) are committed to the GFW, and the commitment and resources that the program has made to support data analysis within the country. However, not all government agencies support transparency in land use and the GFW will continue to be critical for the Government of Cameroon to monitor forest resources, particularly when the land use ministry – or MINEPAT - is on board, and can work with the MINFOF to obtain forest land use data from the Ministries of Agriculture and Mining. In Indonesia, the team found a few individuals who are key government officials and avid users of the platform and strongly support GFW's programs. However, since the evaluation team identified only a few Indonesian government officials agreeing to be interviewed, the team cannot assess the breadth of the government support for the platform.

In Latin America, the initial phases of the program have focused on establishing partnerships and obtaining local data to complement the platform and thereby acquire a larger population of users. There are also some concerns about the ability of GFW to be adopted in Mexico and Peru, given that there is on-going internal development of national monitoring systems in these countries, with support from international agencies.

2. GFW Progress in Attaining USAID Objectives

The Global Forest Watch program has achieved significant progress in attaining the five USAID objectives:

Objective 1, related to increased knowledge and transparency regarding forest landscapes, is being met. The GFW increases knowledge and transparency across a wide spectrum of stakeholders. Survey respondents were located in 75 countries and were focused on Latin America and Asia and to a lesser extent on Africa. The elements of the GFW platform that were most used according to survey respondents are: reviewing maps for general information on forest loss, comparing the GFW forest maps against local maps; using fire maps and alerts; and utilizing the maps around palm oil mills to manage commodity supply chains and their risks. Regarding transparency, users rated the GFW as reliable and accurate.

Objective 2, related to building a collaborative network of partners, is being accomplished to some extent through GFW's collaborative agreements with participating country governments, collaboration with private sector commodity firms, and on-the-ground activities in specific tropical forest countries, particularly in Central Africa and Indonesia. GFW has established close collaboration with the governments of Indonesia and Cameroon. Apart from the private sector partners in Indonesia, however, the GFW local partnerships are not sufficiently developed to translate the platform data into action on the ground.

Objective 3 centers on ensuring that stakeholder systems have the incentives, information, tools, and capacity necessary to reduce tropical deforestation linked to major global agricultural commodities. This objective is being accomplished in countries such as Indonesia and to a lesser extent in Malaysia by enabling producers of commodities to detect deforestation risks in their supply chains in specific countries. The private sector in these countries recognizes the value of the platform in carrying out their risk management assessments of their supply chain that helps to enable them to actively comply with their "no-deforestation" pledges. This is in turn supporting the Tropical Forest Alliance 2020 and other multi-stakeholder partnerships involved in forest management. The private sector in Indonesia and Malaysia uses the GFW specifically to carry out supply chain risk management assessments. The Team was not able to reach conclusions regarding the private sector use of the platform in Cameroon, Peru or Mexico.

Objective 4 focuses on empowering and mobilizing NGOs, researchers, and journalists to independently monitor forests and advocate for forest protection and forest rights recognition. The survey highlights that this objective is being met with a large number of users from research and NGO communities who use the GFW for research on biodiversity and for determining locations and extent of forest loss in high-risk locations. The platform is also used extensively for new legislation or land reforms, and for advocacy and campaigning. However, GFW does not provide sufficient incentives to local stakeholders to become engaged in forest management issues.

Objective 5 regards penetration and use of GFW in governments in forested countries. GFW's progress in meeting this objective is uneven. In Cameroon, the Ministry of Forests and Wildlife is a strong user of the platform. In Indonesia, government officials interviewed use the platform

extensively, but they believed much broader use within the government was possible. In Mexico and Peru, national government agencies are not currently using the GFW as they have opted to develop their own platforms. In some forested countries, public officials do not support the use of the GFW data.

3. The GFW Theory of Change and USAID Objectives

The GFW Theory of Change (Appendix 6) represents the long-term vision for the GFW program. The TOR for this evaluation (See Appendix 7) focused on progress of the program to date, emphasized that the Theory of Change and the objectives for USAID are closely aligned aspects of the project. Given this linkage, the Team reviewed how the project is meeting the USAID objectives while following the proposed Theory of Change.

The Team proposes that WRI review several outcomes listed in the Theory of Change which are planned to be attained by the end of the 2017 funding period for USAID. The outcomes listed in the Theory of Change consist of: (i) effective implementation of zero-deforestation commodity commitments; (ii) fair and effective implementation of biodiversity management and measurement; (iii) fair and effective landscape level planning, management and restoration; and (iv) fair and effective implementation of REDD+ and LULUCF initiatives. Despite the progress made by the GFW team to date, the Evaluation Team believes that these future outcomes will be a challenge to attain. The results of this evaluation highlight the insufficient capacity of the program to develop a dialogue and engage with certain stakeholders or groups. Should resources for stakeholder engagement become available, there is a potential for achieving the outcomes related to the overall objective of reducing deforestation and carbon emissions, while enhancing local livelihoods, biodiversity and ecosystems and reducing global poverty. Without increased local stakeholder engagement, it will be difficult to meet this objective.

At the mid-term point, WRI may not have the capacity (nor the mandate) to engage in stakeholder coordination and/or work more intensely on the ground to be able to work at a local level toward the outcome goals, which should be reached by 2017. Therefore, if such stakeholder engagement is not feasible, the team recommends modifying the Outcomes in the Theory of Change or the wording of Objective #2 to reflect the limitations that currently exist to the GFW's achieving those goals. In this case, the Team suggests that the GFW staff keep the Theory of Change outcome related to "Increased knowledge & transparency about forest landscapes globally" and consider rewording the other four outcomes to have them stated as "contributing to" - rather than the achievement of these outcomes.

In sum, absent the potential to develop formal partnerships with trusted organizations that can work with the GFW to achieve these goals in target countries, it would be best to realize the limitations and modify the outcomes stated for the program.

Recommendations

The Evaluation Team's recommendations are based on the information collected during this evaluation and fall into 4 main categories: Strategy, Stakeholder Engagement, Data Management, and Platform Management and Promotion.

1. Strategy Recommendations

Recommendation 1.1. Maintain Global Focus. GFW should maintain its global focus and not become distracted by demands for more local involvement. Local benefits can be best supported through a network of other organizations or the GFW/WRI offices in target countries. We recommend that GFW remains globally focused and do what it does best with regard to GIS and data management and, as noted below, find partners locally with whom WRI can collaborate or subcontract to support local initiatives. The Team recognizes that WRI will need to implement a system for monitoring local partners if the organization implements this recommendation.

Rationale. As noted in the previous sections, the balance of focus for GFW on the global platform - as opposed to being a local enabler of on-the-ground outputs - presents a dichotomy for GFW, and the organization has engaged in significant internal debate about this challenge. As one major funder put it "*GFW's biggest challenge is walking the tightrope between its global vision and driving local impacts*." Funders do not wish to see WRI become "distracted" from its global transparency mission, while end-users want greater focus and support on using the data to achieve real and practical outcomes on the ground.

This issue represents a fundamental challenge for GFW and permeated many of the Team's interview discussions with external stakeholders and WRI's GFW staff. This challenge clearly impacts the overall strategy going forward for GFW. It influences key decisions by GFW management around expenditure of resources, the placement and composition of local offices, and geographic distribution of support staff in-country. It is also a key factor in GFW's stakeholder engagement strategy.

The evaluation team recognizes this dilemma. We also recognize that the global impacts of the platform and GFW's role in promoting transparency around forest management is paramount. Without a strong global leadership presence, GFW could not drive government and private sector behavior. The team believes that WRI can achieve both its goal of remaining global while addressing local issues by working with trusted partners in key countries. In our interviews with partners such as The Forest Trust and the Global Canopy Programme, we understand that some informal discussion around partnerships have taken place. Since dialogue has already started, WRI should continue these discussions.

Recommendation 1.2. Develop more sophisticated country strategies. For each key country in which WRI is engaged or plans to engage, the organization should develop a country strategy and plan for how it will work in the country.

Rationale. GFW has developed effective country engagements where the organization has worked for many years, such as in Cameroon and Indonesia, despite the fact that WRI has not developed a formal strategy in either country. In the next phase of the program, WRI plans

to expand its activities and effectiveness in new target countries where the organization has less experience. The new countries where USAID funding will be used include the Republic of Congo and the Democratic Republic of Congo. In order to maximize effectiveness, GFW should devise country specific strategies. Our interviews suggest that these target countries present significant differences in governance, capabilities, and readiness to use the GFW platform. WRI will need to incorporate these differences into its strategy and actions in order to maximize success.

Recommendation 1.3. Maintain a balance between Accessibility vs. Accuracy.

Rationale. While technological advances provide greater platform accuracy – in terms of timeliness and granularity – this evaluation team found that these advances come at the expense of accessibility. The more complex and data rich the platform, the less accessible the platform is to users, especially those operating in the field. Conversely, the accuracy of the platform is important to the large numbers of researchers, technical specialists and GIS professions who access the platform, presumably from more capable computer and broadband systems at their offices and facilities. As GFW proceeds into the second half of the USAID project, the program's managers need to ensure that their technology development strategy provides a balance between accuracy and accessibility, and that this balance is in alignment with other components of the GFW overall strategy.

2. Stakeholder Engagement Paradigms Recommendations

Recommendation 2.1. Formalize contractual relationships with local partners who can improve collaboration among stakeholders and key potential users, in order to ultimately translate data into action.

Rationale. GFW has many stakeholders in the private sector, government, research organizations and civil society. Many of them expressed the desire for GFW to provide greater opportunities to collaborate. Even in the private sector, where members have various organizations with which they collaborate, there was an expressed desire to understand what other platform users were engaged in, and how they used the platform. In Recommendation 1.1, we recommend that WRI focus on what it does best, and remain the key provider of forest data and transparency at a global level. WRI can ensure that outcomes are achieved by formalizing relationships with partners to carry out local engagement activities.

Recommendation 2.2. Continue Focusing on Global actors and not Local Smallholders.

Rationale. One of the questions raised during the evaluation revolved around GFW's outreach options in the next phase of the program, and whether that outreach should focus on large global actors, such as financial institutions, or small shareholders, such as local NGOs or palm oil farmers. While the team recognizes the strong need expressed for GFW to strengthen its support for small holders, we recommend that GFW maintain its global strengths and focus on the large global organizations. In our opinion, the needs of small holders cannot be met by GFW in its current configuration, and focusing on such small stakeholders would, in our opinion, dilute the core value of GFW. As noted above, we recommend that WRI establish a local office in the key target countries, and that these offices

support local data uploads and communications with all stakeholders, including small farmers. But this outreach should be limited to the countries with local staff, or when GFW can essentially "outsource" or subcontract local engagement through other NGOs already existing on the ground (See recommendation 2.1).

3. Data Recommendations

Recommendation 3.1. Streamline processes and incentives to promote local data layers (social, political, land-use designations). In countries where WRI has decided to have a stronger focus in future, WRI should encourage local government agencies and community groups to provide data on local layers of information that can be uploaded to the GFW platform. In addition, we recommend that GFW implement a response mechanism to keep data suppliers informed as to the timeline regarding their uploading of this data.

Rationale. Both the survey participants and interviewees noted the lack of local data layers (social, political, land use designations/concessions), which enables them to create more practical uses of the data and to be able to enact change. Additionally, the interviewees expressed frustration at the lack of understanding of the uploading process and the schedule for approving such uploads into the database. While the exact data specification requirements are clear on the website, users perceived a lack of streamlined or consistent process for providing feedback and for deciding what data is selected for inclusion and why. This is clearly a discouragement to those wishing to upload data. If GFW is able to implement a method to inform users of the status of the uploading of data, the program can improve communications and encourage data uploading, while relieving this user frustration.

Recommendation 3.2. Integrate or link other deforestation data and alert systems to the GFW website.

Rationale. While the GFW is the most comprehensive forest monitoring and alert system in operation, other organizations operate extensive data collections on forest management and alert systems, which could augment the platform's functionality and usefulness. For example, Global Canopy's Forest 500 project identifies, ranks, and tracks the governments, companies and financial institutions worldwide that have a major impact on tropical deforestation. Global Canopy has a sophisticated understanding of many organizations that could benefit from the use of the GFW. The team believes that greater collaboration could promote GFW's broadening of the user base and provide opportunities for training and on-the-ground support for the platform without additional WRI or GFW staff. In another example, the Rainforest Connection operates a forest alert system that sends texts to local forestry workers. The evaluation team has not had the opportunity to explore this particular system in detail and how its alerts could be incorporated into the GFW alert system. However, we believe that the broadening of the data sources for the GFW would increase the usefulness of the system. At the very least, the websites of Global Canopy and Rainforest Connection, and other organizations addressing deforestation, should be cross-referenced on each other's sites.

Recommendation 3.3. Increase early warning capabilities and communicate to end users the limitations related to the fire alerts.

Rationale. We recognize that while the fire alert system is available to all parties, NGOs in Indonesia expressed concern that the alert system was focused on government officials, and that local village leaders and NGOs did have access to the fire alerts. In addition, both NGOs and Government Officials expressed the perspective that the fire alert data is occasionally incorrect. They noted that when they receive an alert and proceed to the coordinates listed in the alert that they cannot locate the fire. We believe, though are unable to verify, that the issue around locating the fire is due to a lack of understanding of the limitations of the fire alert data in terms of timing or else that a "false positive" error is at fault. In either case, the inability of local officials to locate the fire after an alert undermines the credibility of the platform. Further investigation was not within the scope of this evaluation and the team did not have time to investigate the issue in detail, however we recommend that WRI assess the problem and develop a solution through communications and training. Proactive local communications could help village leaders and other interested parties assess the alerts and broaden the audience and local use of this capability.

4. Platform Management and Promotion Recommendations.

Recommendation 4.1. Expand local training and enhance Platform Promotion and Communications. WRI should continue – particularly in countries of local focus in the future – to work with local stakeholders on capacity building in GIS and cartography skills. In certain countries, such as Cameroon, WRI already has local partners who have volunteered to work with WRI to develop additional GIS training programs.

Rationale. WRI has a sound reputation with regard to GIS training and communications related to interpretation of satellite imaging related to forest management. Even in the countries where GFW has offices, information about the platform and its uses is still somewhat limited. Users in Indonesia strongly desired more information and communications about the platform. We recommend that GFW use these local offices as the key communicator of the platform to the local audiences, provide support for these offices to field questions and respond quickly and locally to users. We recommend that communications about the platform be carried out more directly by the local offices, and that they serve as the local face of GFW in the region.

Recommendation 4.2. Drive development of mobile applications, interactivity and innovation.

Rationale. The evaluation team believes that the GFW platform can serve as the primary data provider for a wide variety of applications (or apps) addressing forest management as well as potentially other climate related issues. We envision this system as similar to private sector business models[7], where one organization serves as the data manager and data storehouse and then provides support for end-users to develop applications that access that data. While GFW has some apps on its website, we envision a broad array of apps built by end-users and possibly posted on the GFW platform for others to use or adapt. For example, private sector companies could build risk management apps for their supply chain at the

[7] Salesforce is one example in the private sector where the company stores business data and encourages customers to write applications to access that data in new ways.

individual mill site, or a park manager could build an app that identifies and alerts authorities in their territory to rapid changes in forest cover. This "ecosystem" of data and applications would have the GFW platform as the primary data manager and storehouse.

In order to achieve this central status, GFW will need to continue providing resources to promote innovation and interactivity with the platform by providing the data to support such applications. As part of this process, it is important that WRI complete the publishing of the Application Program Interface (API) specifications. This will enable other developers, especially local users, to develop apps that serve local needs but are driven by data on the platform. We understand that the API for the platform is partially written, and we strongly recommend this be completed and published. We believe that providing access for developers to link to the platform would in essence make the GFW platform the centerpiece of the forest data ecosystem, and help ensure the sustainability of the GFW platform.

We recognize that the website has very recently been improved to make mobile access easier. This enhancement was released at the end of the interview period and no stakeholders reported any improvements during the interviews. While this enhancement may prove very useful for end-users, the team is cognizant that in many remote forest regions, mobile and distributed applications and data analysis is perhaps the best approach for serving end users in the field while maintaining a global focus.

Recommendation 4.3. Improve Translation Quality. We recommend that GFW work with Google to resolve the poor translation issues in all major user languages.

Rationale. The GFW provides translations via the Google Translate application. There are varying degrees of accuracy with this application. For example, end users in Latin America noted that Global Forest Watch is translated as "Global Forest *Wristwatch*." The end users in Indonesia expressed frustration that the translation was too technical for end users in the field. Poor translation casts doubts in the minds of end users as to the accuracy of the platform itself, even though there is no connection. Poor translation also makes the platform less useable from the end-users perspective.

Appendix 1. Names of Persons Interviewed

First Name	Surname	Organization	Country Base	Sector
Alfred Che	Akumsi	Production Manager, Herakles Farms	Cameroon	Private Sector
Sita	Aripurnami	Director, Woments Development Collective	Indonesia	NGO
Mirey	Atallah	Senior Officer National Programs, UN-REDD	Switzerland	Other
Helene	Barnes	Program Manager, Rincong	Indonesia	NGO
Didier	Bastin	Self employed - was with Alpicam	Cameroon - now in Belgium	Private Sector
Lyna	Belanger	Project Manager, KFW and GFA	Cameroon	NGO
Helen	Bellfield	Project Manager, Science, Global Canopy programme	England	NGO
Claudia	Benavides	Technician/Researcher, SPDA	Peru	NGO
Ruben	Blackie	Project Manager, Sustainable Trade.com	Indonesia	NGO
Mallorie	Bruns	Program Manager, Meridan Institute	USA	NGO
Carlos	Candia[3]	GIS Specialist, OSINFOR	Peru	Government
Juan Carlos	Carillo	Lawyer, CEMDA	Mexico	NGO
Olimpia	Castillo	Iniciativa Accesso Mexico	Mexico	NGO
Jemmy	Chaydi	Sustainability Manager, April Asia	Indonesia	Private Sector
Peter	Eredics	Forestry Manager, ESRI	USA	Private Sector
Alexandra	Experton-Booth	Sustainability Manager, Cargill	Singapore	Private Sector
Yuri	Feres	Sustainability Manager, Cargill	Brazil	Private Sector
Henrik	Fliflet	Project Manager, International Climate and Forest Initiative, Government of Norway	Norway	Government
Buh	Gaston	GIS Specialist, World Wildlife Fund (WWF)	Cameroon	NGO
Mariana	Gonzalez	Investigator, FUNDAR	Mexico	NGO
Simo	Hakanan	Sustainability Manager, Neste Oil	Indonesia based in Finland	Private Sector
Matt	Hansen	Professor, University of Maryland	USA	NGO

First Name	Surname	Organization	Country Base	Sector
Peter	Heng	Formerly Sustainability Officer at GAR	Singapore	Private Sector
Ernesto	Herrera	Director, Reforestamos Mexico	Mexico	NGO
John	Janampa[3]	GIS Specialist, OSINFOR	Peru	Government
Patrice	Kamkuimo	Project Leader, CED - Centre pour l'Environnment et Developpement	Cameroon	NGO
Sebastian	Kraus	External GIS Consultant on a Small Grant project, SPDA	Peru	NGO
Dr. Sanath	Kumaran	Head of Impacts, RSPO	Malaysia	Private Sector
Heiner	Lehr	Director, Food Reg	Indonesia based in Spain	Private Sector
Manuel	Llano	Independent Consultant (Mapping and GIS expert)	Mexico	Private Sector
Timer	Manurung	Department of Forestry and Environment	Indonesia	Government
Belinda	Margono	Direktorat General of Climate Change Ministry of Environment and Forestry of Indonesia	Indonesia	Government
Eduardo	Martinez	President, Sur Verde	Mexico	NGO
Thomas	Maschler	GIS Specialist, WRI	Cameroon and Africa coverage - based in DC	NGO
Agustin	Mascotena	Roundtable for Sustainable Soy	Argentina	Private Sector
Duclaire	Mbouna	Cameroon National Coordinator, WRI	Cameroon	NGO
Shayne	McGrath	Activist, HaKA	Indonesia	NGO
Rob	McWilliam	Palm Oil Manager, The Forest Trust	Switzerland	NGO
Petra	Meekers	Sustainability Manager, Musim Mas	Singapore	Private Sector
Jean Daniel	Mendemo Biang	Head of Cartography Service, MINFOF - Ministry of Forests and Wildlife	Cameroon	Government
Bakia	Mor-Achankap	MINFOF - Head of SW region, Ministry of Forests and Wildlife	Cameroon	Government
Francisco	Moreno[2]	Manager of Forest Information, CONAFOR	Mexico	Government
Ruth	Newsome	Sustainability Manager, Unilever	Indonesia based in Holland	Private Sector

First Name	Surname	Organization	Country Base	Sector
Erith	Ngatchou	Central Africa Senior Manager, The Forest Trust	Cameroon	NGO
Antoine	Njiang	Head of National Park Service, MINFOF - Ministry of Forests and Fauna	Cameroon	Government
Sebastien	Proust	Project Manager, TNC	Mexico	NGO
Irmijati	Rachmi Nurbahar	Indonesian Directorate General of Estate Properties, Department of Agriculture	Indonesia	Government
Luis	Ramirez	Sustainability Manager, FEMSA	Mexico	Private Sector
Daniel	Sanchez[1]	Subdirector of Incidence, Reforestamos Mexico	Mexico	NGO
Taryn	Sanchez[1]	Researcher, Reforestamos Mexico	Mexico	NGO
Prakash	Sarkrany	Executive Director, Watanmal Group (US)	USA	Private Sector
Evelyn	Shottleander	Private Consultant	Colombia	Private Sector
Richard	Smith[4]	Director, Instituto del Bien Comun	Peru	NGO
Pedro	Tipula[4]	Geographer, Instituto del Bien Comun	Peru	NGO
Andreas	Tveteraas	Deputy Director, International Climate and Forest Initiative, Government of Norway	Norway	Government
Lenin	Valencia	Member of Citizenship Program and Environmental Affairs, SPDA	Peru	NGO
Pedro	Vilchis[2]	Information Manager, CONAFOR	Mexico	Government
Ben	Vreeburg	Sustainability Manager, Croklaan	Singapore	Private Sector
Sarah	Whalen	Project Manager, Meridan Institute	USA	NGO
Fiona	Wheatley	Sustainable Development Manager, Marks & Spencer	England	Private Sector

1: Interviewed together at Reforestamos Mexico
2: Interviewed together at CONAFOR
3: Interviewed together at OSINFOR
4: Interviewed together at Instituto del Bien Comun

Appendix 2. Sources of information

AID-OAA-A-13-00045 World Resource Institute.pdf

Davies, T; Perini, F; Alonso J. (2013, July). Researching the Emerging Impacts of Open Data: A Working Paper for the Open Data in Developing Countries Programme. FGMC Evaluation Report Indonesia.pdf

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GFW SGF Final Report_final.doc

GFW FY13Q4 Quarterly Report to USAID, 2013

GFW FY14Q1 Quarterly Report to USAID, 2014

GFW FY14Q2 Quarterly Report to USAID, 2014

GFW FY14Q3 Quarterly Report to USAID, 2014

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GFW FY15Q2 Quarterly Report to USAID, 2015

GFW FY2015 Work Plan.xlsx

GFW Outcomes Review 2014_v2.pdf

GFW Partnerships Meeting Report 2014.pdf

GFW Platform Metrics (indicators from website analytics and most recent results).xlsx

GFW SGF Final Report - Blue Ventures_Final.doc

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Open Knowledge Foundation. (2012). Census - Open Government Data Dashboard. Open Government Data Dashboard. Retrieved December 2, 2012,

from:http://dashboard.opengovernmentdata.org/census/

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Roundtable of Sustainable Palm Oil Certification Guidelines, www.rspo.org

SGF Results_Part1 Summary.pptx

Stakeholder Mapping.xlsx

Sustainable Palm Oil Platform (SPOTT) Evaluation Criteria and Rankings

USAID Logframe 1st Amendment.xlsx

USAID Scaemps Agreement.pdf

WRI proposal to Norway - GFW Phase 2 - June 2015.pdf

Appendix 3. Interview Questions

Evaluation/Interview Questions

General (*to be filled in by the Evaluation Team prior to/ during ALL interviews*)

Name and Title _____ Institution interviewee works for?_____

Nature of the interviewee's relationship to the GFW thus far_____

Government specific questions

1. Please describe your position and you general activities in the Government.
2. How do you interact with the GFW Platform and the GFW staff here in Cameroon?
3. What particular elements of the GFW platform do you think have been most useful and/or have spurred greater adoption, and why?
4. Which particular partnerships or GFW partners have been the most important in the greater dissemination and use of the GFW platform? Which other institutions/people should be pursued in the future?
5. As a whole, would you say you consider the GFW platform as a trusted and reliable source for forest management information?
6. As a whole, how interested/equipped do you think the private sector/ government is in your country is to effectively promote and utilize the type of data available on the GFW platform?
7. What local characteristics do you think present the greatest obstacles or shortcomings in relation to the adoption and use of GFW data?
8. What do you think could be done differently in order to overcome some of these obstacles/shortcomings and/or to expand the number so users utilizing GFW?
9. Have you or someone in your institution participated in any capacity building workshops or events relates to GFW? What was the nature of these events/training?
10. What has been the result of these training/ how have you used the knowledge from the workshops?
11. To your knowledge, what types of laws, policies, strategies, plans, or regulations addressing forests have been proposed, adopted, or implemented as a result of using GFW data? What would have happened if GFW data and/ or support had not been available (counter-factual)?

NGOs/Civil Society Specific questions

1. Please describe your position and you general activities in your organization?
2. How do you interact with the GFW Platform and the GFW staff here in Cameroon?
3. As a whole, would you say you consider the GFW platform as a trusted and reliable source for forest management information?
4. As a whole, how prepared/equipped do you think the public and private sector (and NGOS) are in your country to effectively promote and utilize the type of data available on the GFW platform?
5. What particular elements of the GFW platform do you think have been most useful and/or have spurred greater adoption, and why? For example, have new communities of practice been established based on the GFW platform?
6. What local characteristics do you think present the greatest obstacles or shortcomings in relation to the adoption and use of GFW data?
7. What do you think could be done differently in order to overcome some of these obstacles/shortcomings and/or to expand the number so users utilizing GFW?
8. Which particular partnerships or GFW partners have been the most important in the greater dissemination and use of the GFW platform? Which other institutions/people should be pursued in the future?
9. Have you had any involvement with the small grants program available through GFW? If so, what has been the nature of your small grant project or proposal?
10. Have you or someone in your institution participated in any capacity building workshops or events relates to GFW? What was the nature of these events/training?
11. What has been the result of these training/ how have you used the knowledge from the workshops?
12. To your knowledge, what types of laws, policies, strategies, plans, or regulations addressing forests have been proposed, adopted, or implemented as a result of using GFW data? What would have happened if GFW data and/ or support had not been available

Private Sector Questions

1. What part of the Palm Oil supply chain does your firm participate in?
2. Please describe your position and you general activities in your company?
3. How do you interact with the GFW Platform and the GFW staff here in Cameroon?
4. What is your relationship with the industry organizations such as African Palm Oil Group, RSPO Spott or Indonesian Sustainable Palm Oil (ISPO) Foundation?
5. As a whole, would you say you consider the GFW platform as a trusted and reliable source for your operations with regard to forest management information? (Implementation)
6. As a whole, how prepared/equipped do you think your company, and private sector in general, in your country is to effectively utilize the type of data available on the GFW platform?
7. What is the view within your firm and the palm industry in general of the GFW website and GFW activities in your country?
8. How does your firm use the data available on the GFW platform in your operations? In which department is the data used?
9. How does your firm collaborate with Palm Oil industry groups such as SPOTT or RSPO?
10. What particular partnerships or relationships have been the most important to your firm in managing your palm oil operations?
11. To your knowledge, what private sector firms are actively contributing to new data, expertise, and on-the-ground capacity to the program within your country?
12. What obstacles and shortcomings do you see with the type, structure, and dissemination of GFW data that prevent it from greater adoption within the private sector?
13. What do you think could be done differently in order to overcome some of these obstacles/shortcomings and/or to expand the number of private sector users utilizing GFW for assistance in managing your palm oil production?

Appendix 4. Survey Questions and Possible Responses.

Language: Select your language for the survey:
Possible Answers: English, French, Spanish and Indonesian Bahasa

Question 1. How often do you access the GFW Platform?
- Daily
- Weekly
- Monthly
- Occasionally, but less than once a month
- I have seen the platform, but never used it myself

Question 2. Is your interest personal or professional?
- Professional - work related
- Personal
- Both

Question 3. What is your gender?
- Female
- Male

Question 4. In which sector are you working?
- Government - Public Sector
- NGO – non-governmental organization
- Private Company
- University Staff or Student
- Media or Journalist

Question 5. What is your job level/ responsibility/title
- Senior Manager
- Technical staff or Researcher
- Forest or Park Manager or Ranger
- GIS or remote sensing or land use planning specialist
- Student
- Professor/Lecturer/Teacher
- Community Liaison or advocate
- Reporter or Editor
- Policy or legal specialist
- Other (please specify)

Question 6. In which country do you live?
- Fill in Box

Question 7. Would you say your focus of work is at a global, regional or country level? If at the country level, please indicate the country in which you work.
- Global
- Regional

National (please enter name of country)

Question 8. If you have a regional Focus - what is it?

I have a country or global focus and not a regional focus
Latin America
Africa
Asia
North America
Europe
Oceania

Question 9. What Sections of the GFW platform do you use (check all that apply)

Global Forest Watch (main platform)
GFW Fires
GFW commodities
GFW applet on the ZSL SPOTT tool
National Forest Atlases (list countries)
Other uses (fill in box)

Question 10. What is/are your reason(s) for using the GFW platform? (Please choose the answer(s) which apply – multiple answers are possible)

Obtaining maps and data on tree cover
Obtaining maps and data on land use
Obtaining maps and data on fires
Obtaining maps and data on commodity companies
Obtaining maps and data on biodiversity
Obtaining maps and data on capacity building
Obtaining general information for my country or region
Using country pages to find statistics about a specific country
Obtaining information on the Small Grants Program
Submitting a story
Reading stories
Reading blog articles
Uploading my own data
Downloading data from the open data portal
Comparing GFW data with local information (not on the site)

Question 11. Please rank the platform on the below 5 attributes using a 1-5 scale with 1 (Lowest Ranking) 3 (Middle Ranking) 5 (Highest Ranking)

Reliable
Accurate
Interactive
Usefulness
Easy to use (usability)

Question 12. Has your use of GFW data resulted in one or more of the following? (please check all that apply):

New legislation or government reforms related to land use planning

Capacity building workshops or seminars for stakeholders
Changes in concession management
Informing your business related to your supply chain
Measuring, monitoring, or reporting project/program impacts
Comparisons with other local land use or forestry information
Advocacy or campaigning
Legal action
Research/publications
None of the above.

Please provide additional details about how GFW has contributed to the selected activities (write in box)

Question 13. In your opinion, what limits greater use of the GFW Platform (check all that apply)

Lack of access to the internet or limited bandwidth
More training is required on how to use the platform
Lack of knowledge that the GFW exists or what its capabilities are
Information on the platform is not relevant to local issues
GFW information is not considered accurate or reliable
Government or public officials do not support the use of data from the GFW
Other (please specify)

Question 14. In your view, what additional data and/or features would make GFW a more widely accepted and useful tool?

Write in Box

Question 15. Please provide any additional comments below:

Write in Box

Question 16. If you would like additional information on the GFW please add in your email below. Note that this information will NOT be associated with any of your answers above.

Optional Contact Information
Name
Company or organization
Country
Email Address
Optional Contact Information

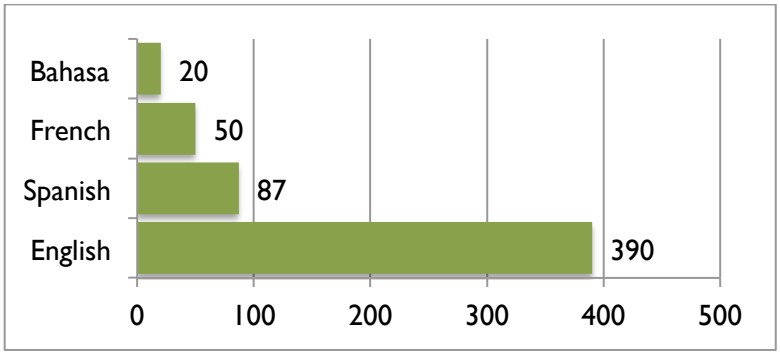
Would you be willing to help Global Forest Watch improve by becoming an official tester?

yes
no
Other (please specify)

Appendix 5. Survey responses

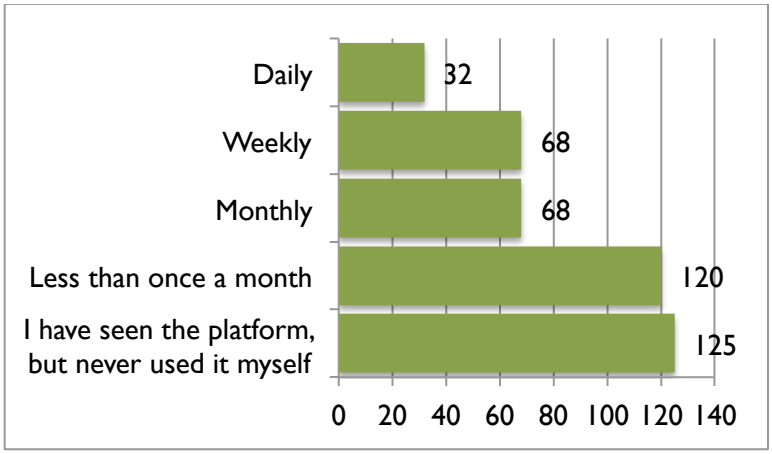
Language Choice.

A total of 547 responded to this question with over 71% choosing English.



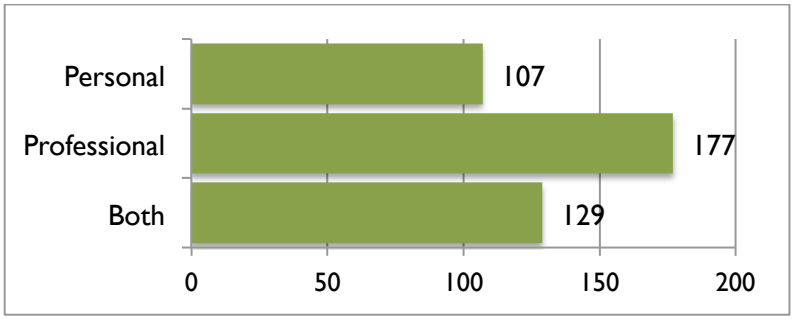
Question 1. How often do you access the GFW Platform?

A total of 413 responded to this question.



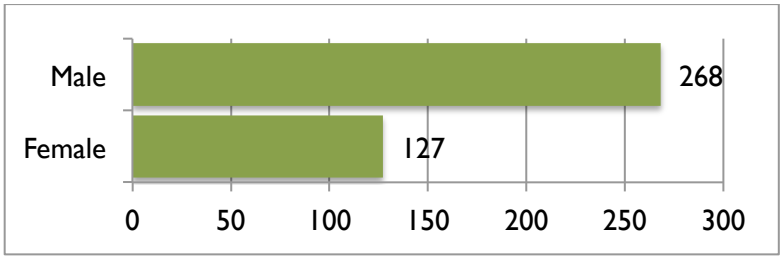
Question 2. Is your interest personal, professional or both?

A total of 413 responded to this question, with 43% indicating a professional interest.



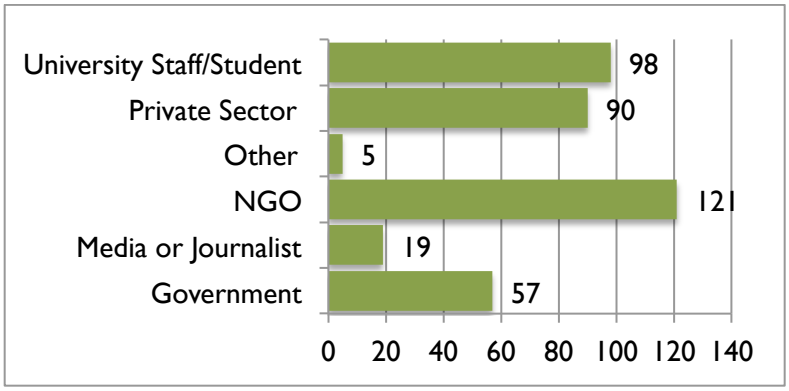
Question 3. What is your gender?

A total of 395 responded to this question with twice as many males and females.



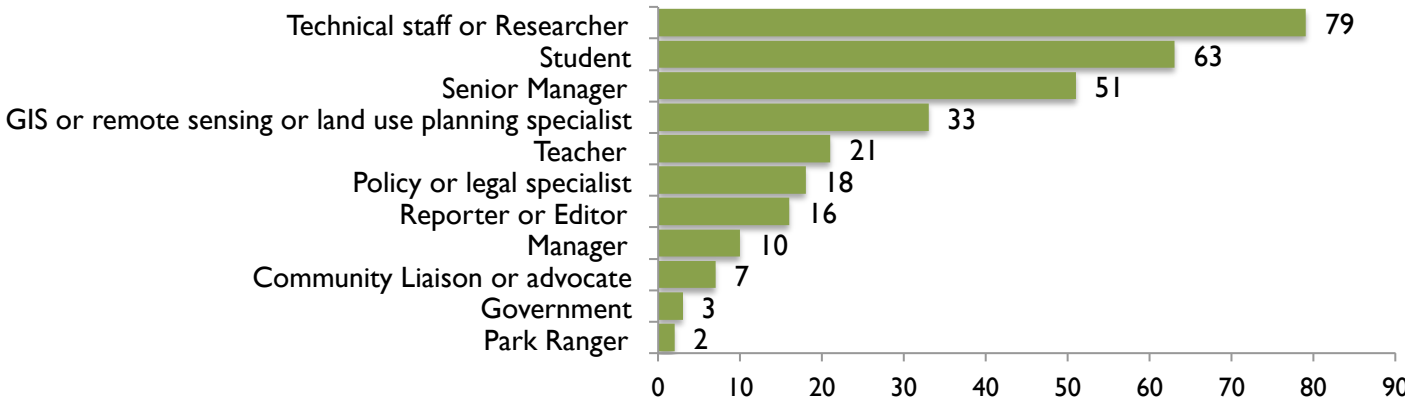
Question 4. In which sector are you working?

Of the 390 respondents who answered this question, NGOs, University Staff or Students represented over 50% of the total responses. The private sector represented nearly 25% of the total while government represented only 13%.



Question 5. What is your Job Level or Title?

Of the 303 responses to this question, nearly 37% were either technical staff, researchers or GIS and remote sensing professions. Senior managers represented approximately 16% of the respondents.



Question 6. In which Country do you live?

The table below presents the total number responses for each country.
Countries with the most responses:

Country	Number of Responses	Country	Number of Responses	Country	Number of Responses
USA	55	India	10	Belgium	5
Indonesia	21	Cameroon	8	Peru	5
Mexico	18	Germany	8	Russia	5
Brazil	16	Italy	8	Netherlands	5
Malaysia	16	France	7	Bolivia	4
UK	15	China	6	Colombia	4
Canada	11	DRC	6	Spain	4

Countries with a few responses:

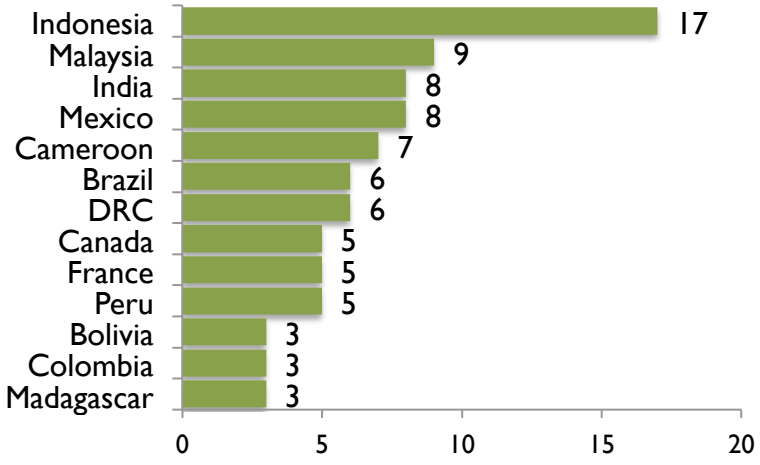
Country	Number of Responses	Country	Number of Responses	Country	Number of Responses
Argentina	3	Austria	2	Singapore	2
Australia	3	Dominican Republic	2	Sweden	2
Costa Rica	3	Gabon	2	Taiwan	2
Madagascar	3	Kenya	2	Venezuela	2
Paraguay	3	Nigeria	2	Vietnam	2
South Africa	3	Norway	2		
Tanzania	3	Philippines	2		

Countries with 1 response only:

Belarus	Iraq	Nepal	Thailand
Croatia	Israel	Panama	Timor-Leste
Denmark	Japan	Poland	Tunisia
Ethiopia	Laos	Portugal	Uganda
Finland	Liberia	Rwanda	Zambia
Ghana	Lithuania	Saudi Arabia	
Guatemala	Luxembourg	South Korea	
Guinéé	Mali	Sri Lanka	
Honduras	Montenegro	Switzerland	
Hungary	Namibia	Tajikistan	

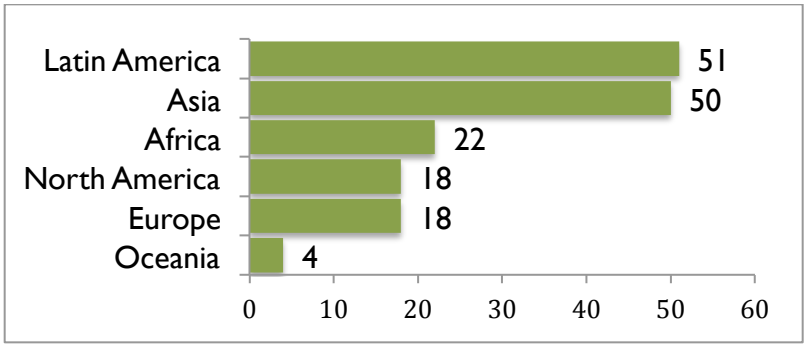
Question 7. Is you focus regional, global or at the country level?

A total of 141 respondents indicated a country-level focus, with the largest group (n=17) indicating Indonesia, followed by Malaysia, India, Mexico, Cameroon, Brazil, Peru and the Democratic Republic of Congo (DRC)



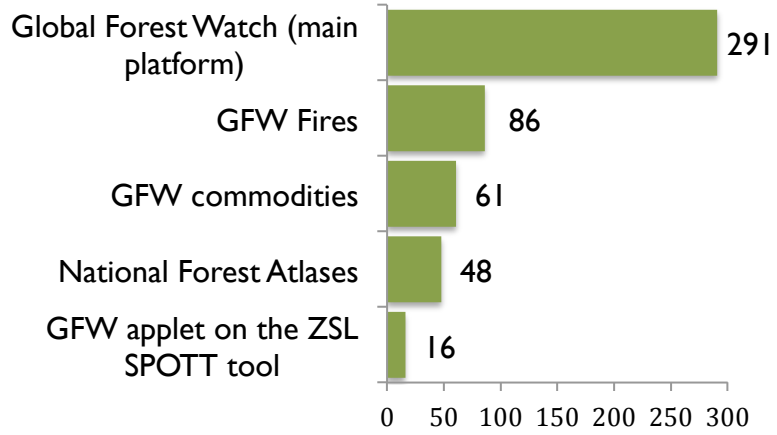
Question 8. If you have a regional focus, what is it?

A total of 163 respondents had a regional focus, with over 30% each being in Asia or Latin America.



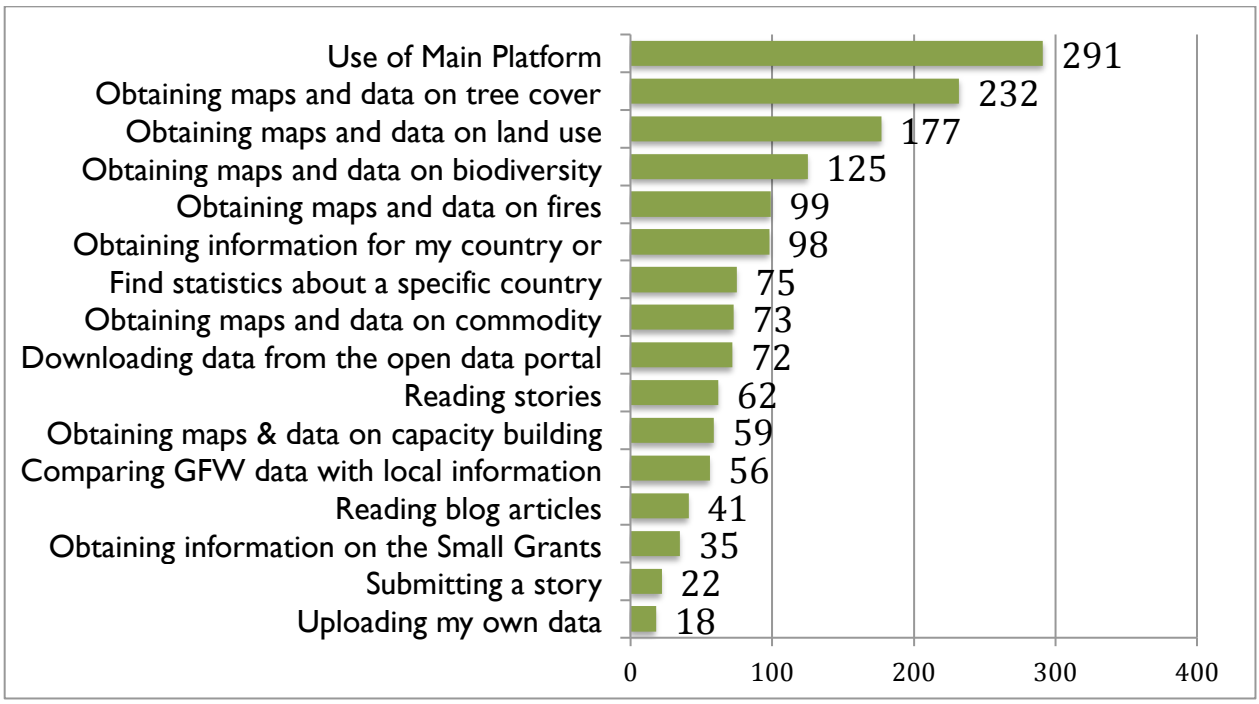
Question 9. What applications of the GFW platform do you use (check all that apply)?

A total of 291 responded to this survey question. Of this total 100% indicated that they use the primary platform. The largest number of respondents (86) used the Fire App, followed by the Commodities App (61) and the National Forest Atlases (48).



Question 10. What are the reasons for using the GFW Platform?

A total of 291 respondents answered this question. Many respondents listed multiple uses, so the numbers listed below are not additive. The most cited uses centered on obtaining maps and data for land cover, land use, biodiversity, and fires.

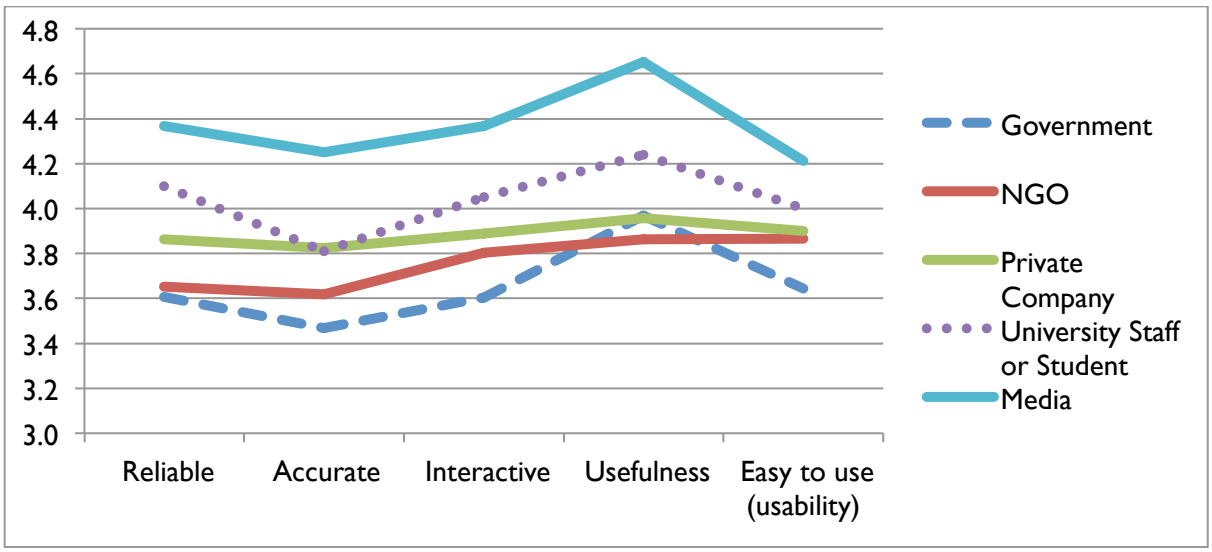


Question 11. Please rank the platform on the 5 attributes listed below on a scale of 1 (lowest) to 5 (highest). The attributes are: reliability, accuracy, interactivity, usefulness and ease of use.

Overall the GFW platform was highly rated with average ratings of between 3.78 and 4.09 for each of the five attributes.

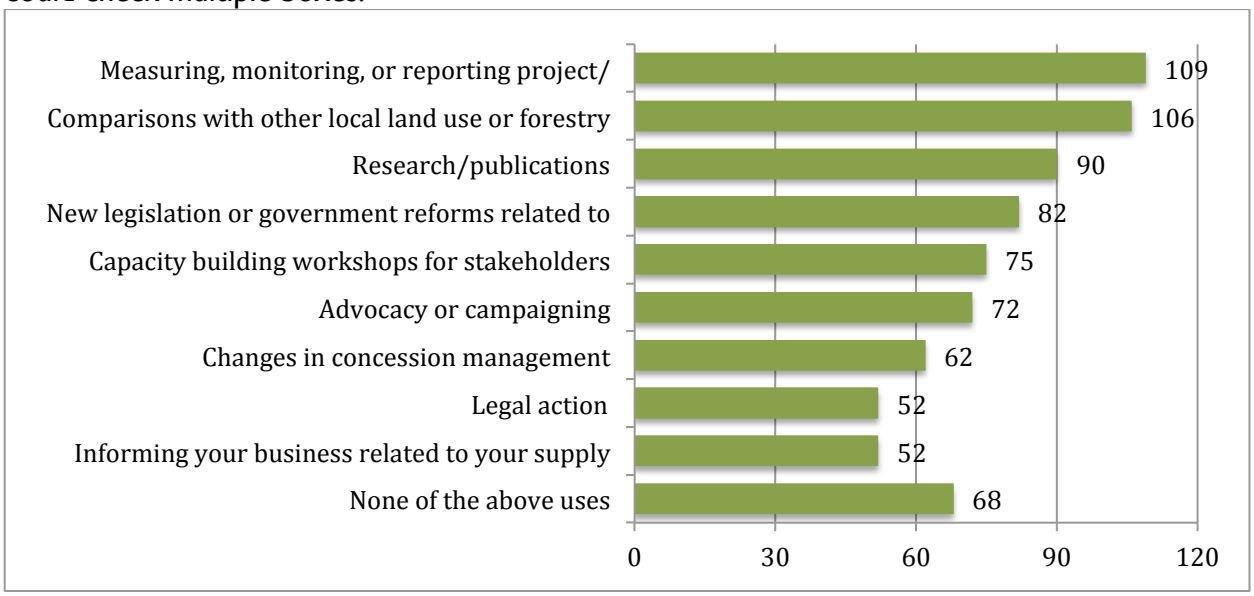
Reliability Average Score	Accuracy Average Score	Interactive Average Score	Usefulness Average Score	Easy to Use Average Score
3.88	3.78	4.00	4.09	3.94

Breaking down the ratings by sector, media rated the platform highest while Government respondents rated the platform the lowest. Within each sector, usefulness was the highest rated attribute:



Question 12. Has your use of the GFW data resulted in one or more of the following (please check all that apply)?

A total of 283 individuals responded to this question. Of that total, 68 respondents list "none-of-the-above". The remaining respondents listed a total of 700 results. Note that respondents could check multiple boxes.



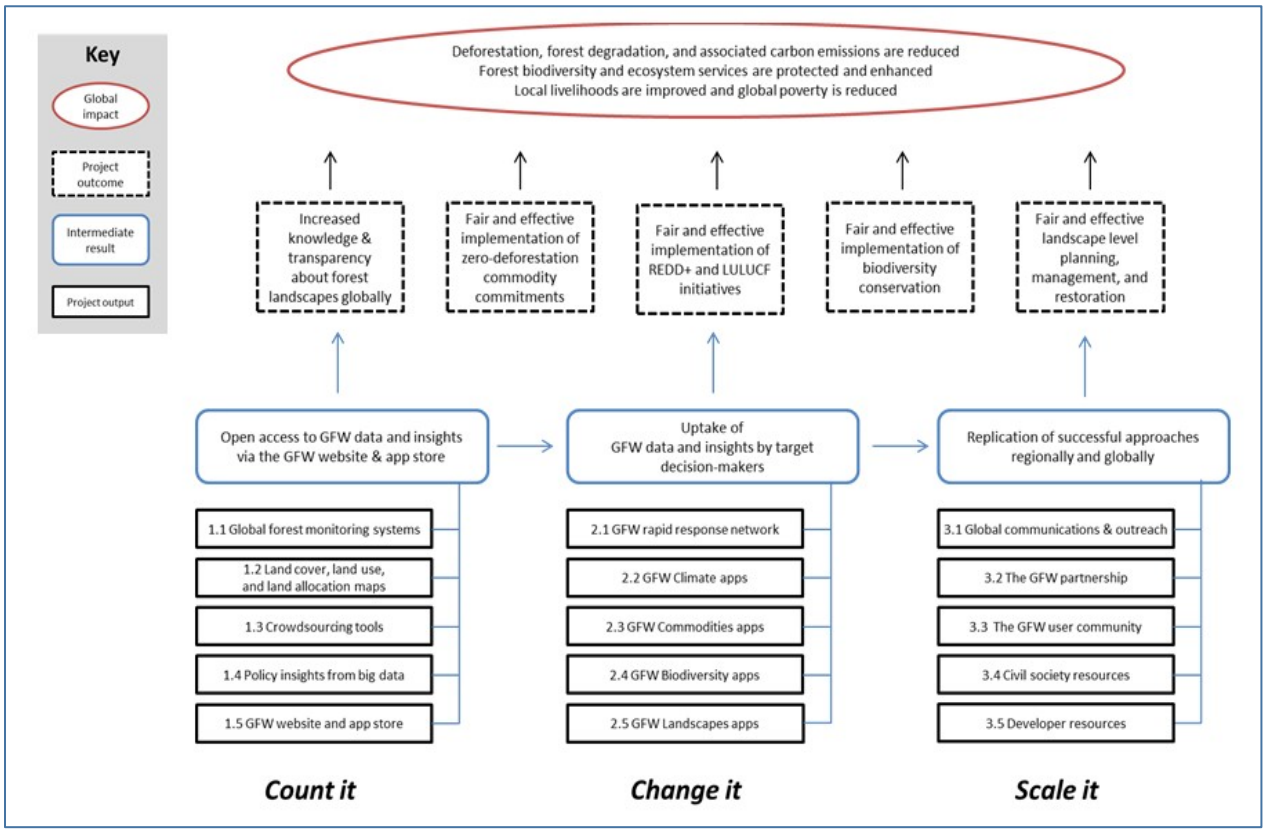
Question 13. In your opinion, what limits the greater use of the GFW Platform (check all that apply)?

Some 123 respondents indicated issues that limit greater use of the GFW platform. These issues, and the number of times respondents cited them, are presented in the table below. The issue with the greatest number of notes related to additional training required in country to enable end users to operate the platform more effectively. A significant number (75) also cited the lack of

access to the Internet. Approximately 48% of the respondents who cited at least one issue noted that public officials do not support the use of the GFW data.

Issue	Total number of issues cited
More training is required on how to use the platform	88
Lack of access to the internet or limited bandwidth	75
Government or public officials do not support the use of GFW Data	45
GFW information is not considered accurate or reliable	37
Information on the platform is not relevant to local issues	34

Appendix 6. Theory of Change for the GFW Project



Appendix 7. GFW Midterm Evaluation Terms of Reference

GFW Midterm Evaluation Draft Terms of Reference

Introduction

Global Forest Watch (GFW) combines cutting edge technology, science, and open data to create never-before-possible transparency about the status of forest landscapes everywhere. Harnessing the power of radical transparency, GFW aims to catalyze low emissions development by transforming business-as-usual land use practices. GFW partners with governments, businesses, and civil society to create information and tools needed for better decision-making and improved accountability for forests and people on the ground. GFW's open source platform[1] and growing partnership[2] allows promising solutions to be delivered at scale.

The GFW partnership is convened by the World Resources Institute (WRI), and WRI is administering a USAID four-year cooperative agreement which will end in June 2017. This Terms of Reference (ToR) describes a midterm performance evaluation to be completed by October 15, 2015.

Purpose

The midterm evaluation has two learning areas: 1) To better understand the effectiveness of GFW process pathways, the steps through which GFW influences partners, governments, private sector and civil society to reduce deforestation and 2) To identify GFW's contribution to emerging outcomes within relevant agreements or coalitions[3]. USAID and the GFW team are the primary audience of this report. The GFW team is committed to utilizing the findings of this evaluation to advance our progress toward GFW goals. As such, this evaluation should focus on capturing the current context, acknowledging to the degree possible, other players involved in contributing to emerging outcomes.
GFW's criteria of success within the timeframe covered by this evaluation are:

GFW initiative advances open forest data movement and transparency in forestry

GFW partnership growth

[1] The GFW platform provides open access to big data, analysis, and tools at www.globalforestwatch.org
[2] The GFW partnership now includes over 60 organizations.
[3] The consultant should consider the following international agreements, in which GFW operates: TFA2020, Zero Deforestation Commitments, and NY Declaration on Forests.

GFW Commodities works to ensure that the following key stakeholder systems have the incentives, information, tools, and capacity necessary to reduce tropical deforestation linked to major global agricultural commodities: global "innovators," commercial consumers, public policy systems, financial markets, and commodity producers. This evaluation will focus on emerging impact on the "global innovators" and "commercial consumers."

Civil society organizations, mainly journalists, researchers and NGOs, find value in the platform and advance transparency as intermediaries of and advocates for forests and forest-dependent communities.

Governmental agencies embrace the open data movement and take steps to improve decision-making, forest management and law enforcement.

Evaluation Questions

The evaluation questions below were developed in consultation with the GFW team and WRI staff (see list in Annex 2). The consultant must design a midterm evaluation to answer these questions:

Are the objectives for Global Forest Watch being met? (see objectives in Annex 1)

Has GFW been successful in contributing to the objective of the TFA 2020[4]?

What particular elements of the initiative have led to the greatest adoption of global forest watch by target audiences (with a focus on private sector partners in the TFA 2020 coalition), and how are those partners using the platform?

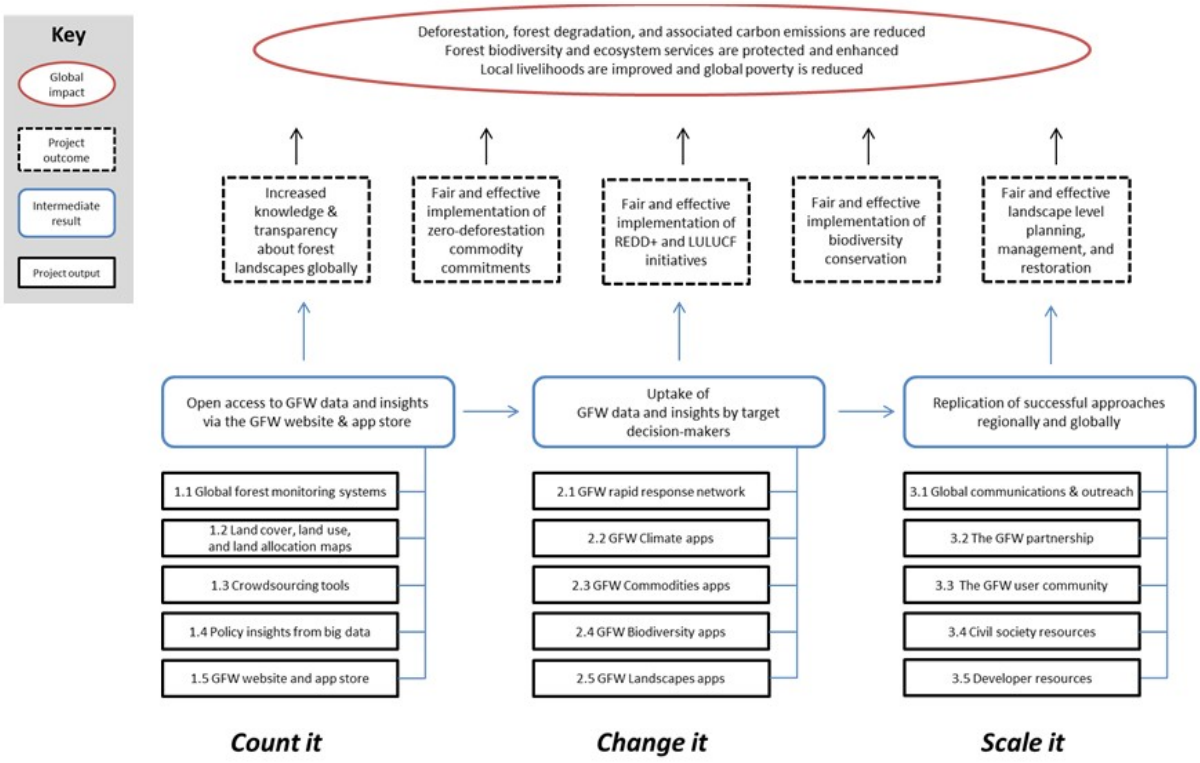
What obstacles or shortcomings in project structure have been the greatest barriers to adoption of GFW by target audiences?

a. How can GFW improve uptake by these same groups?

[4] Objectives are described by TFA 2020 on the group website (http://www.tfa2020.com/index.php/objectives): TFA 2020 and its Partner countries, companies and civil society organizations work together to:
Improve planning and management related to tropical forest conservation, agricultural land use and land tenure.
Share best practices for tropical forest and ecosystem conservation and commodity production, including working with smallholder farmers and other producers on sustainable agricultural intensification, promoting the use of degraded lands and reforestation.
Provide expertise and knowledge in order to assist with the development of commodity and processed- commodity markets that promote the conservation of tropical forests.
Improve monitoring of tropical deforestation and forest degradation to measure progress.

Program objective and intermediate results

GFW aims to reduce deforestation and forest degradation globally while contributing to climate change mitigation, biodiversity conservation, and maintenance of vital ecosystem services. In particular, GFW seeks equitable land use solutions that conserve forests while also enhancing livelihoods and reducing global poverty. See a diagram of GFW Theory of Change below and list of our objectives and results in Annex 1.



Evaluation design and methodology

The evaluation design must be non-experimental. GFW prefers Developmental Evaluation[5] approach that focuses on learning and feedback on what's working. The design must incorporate systems thinking and be context-specific to identify ways to optimize GFW's emerging results and impact. The evaluation consultant/team is responsible for developing a detailed evaluation design, which includes finalizing key and sub-evaluation questions, identifying subjects for interviews, designing survey instruments, designing and implementing focus groups, training data collectors and enumerators (as needed), implementing data

[5] Michael Quinn Patton's developmental evaluation approach is suited to innovation development in complex environments.

collection and analysis methods. Key GFW team members will be involved in the design, planning, and logistics, but the evaluation consultant will provide overall leadership and direction and will be responsible for all evaluation tasks and deliverables.

The evaluation consultant will begin with a desk study of existing documents and information, followed by consultations with key stakeholders. The collection methods and analytical frameworks must be pre-approved by WRI as part of an inception report submission. The sources of evaluation findings should include:

Desk review: Review documents compiled by WRI. Work with WRI teams, including in- country teams, to acquire additional documents as needed and only collect primary data where gaps remain. GFW team and expert consultations: Meet with WRI and GFW topic experts as needed for clarification in preparation for the inception report.

Stake-holder survey: Implement a survey of perception, knowledge, attitude and practice via electronic surveys, phone/virtual, in-person interviews with key informants. The interviews should be conducted after instruments have been developed. Target informants include TFA2020 Global Innovators, RSPO members, Small Grants Fund recipients, partners, government officials, and subgrantees. (Note: No international travel is planned for this evaluation)

The evaluation consultant is free to establish her own methodology and tools. WRI will be particularly interested in developmental evaluation approach and common assessment methods for open data[6].

Timeline

Week	June	July	August	September	October
1				Present findings to GFW	Draft evaluation report due
2	Begin desk review			Discussion with GFW team	
3	Inception report due with work plan				Final evaluation report due
4					USAID deadline

[6] Tim Davis, World Wide Web Foundation, IDRC/CRDI conceptual framework in Exploring the Emerging Impacts of Open Data in Developing Countries.

Deliverables

Deliverables must be in English and include:

Presentation of evaluation inception report in word format to GFW before beginning the evaluation.
PPT presentation with key preliminary findings and recommendations.
Facilitated discussion of above with GFW team and relevant stakeholders[7].
Draft evaluation report.
Final evaluation report.
Raw data collected as a result of evaluation as well as relevant informed consent.

The evaluation report must demonstrate clear line of analysis and concisely summarizes findings, conclusions, and recommendations. Visual summaries such as infographics, charts and tables are preferred. The evaluation report should meet the criteria outlined in the USAID guidelines below. http://www.usaid.gov/sites/default/files/documents/1870/How-to-Note_Preparing-Evaluation-Reports.pdf

Sample Evaluation Report Template

Table of Contents
Executive Summary
Evaluation Purpose and Evaluation Questions
Initiative Background
Methods and Limitations
Findings and Conclusions
Recommendations
Annexes: includes finalized Statement of Work, Data Collection Instruments, Sources of Information, schedules, and interview list.

Desired Qualifications

WRI envisions an evaluation team comprised of one to two independent external consultants, as follows:
Lead Evaluator
Optional: Research assistant/Administrative and Logistical Support Specialist Interested Lead Evaluator should have the following qualifications:

[7] This includes key partners and USAID.

Master's Degree required, preferably in Environmental Science, Sociology, International Development, or other relevant field;
Minimum of ten (10) years' experience with program evaluation on governance, open data, transparency, environment or climate programs.
Familiarity with the Tropical Forest Alliance 2020.
International field experience and demonstrated ability to lead a multi-discipline team; experience in Indonesia, Peru or Cameroon preferred
Experience in designing and implementing quantitative and qualitative data collection tools and data analysis frameworks; experience facilitating focus groups preferred
Experience with statistical and qualitative software (Stata, SPSS, Nvivo, etc.)
Exceptional organizational, analytical, writing and presentation skills
Prior experience working with USAID rules and regulations and on USAID evaluations required.

To Apply

WRI requests that interested parties submit a short cover letter outlining your proposed evaluation approach and proposed budget along with CV(s) for the lead evaluator and any assistants by June 1, 2015 to Katherine Shea at Kshea@wri.org.

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