**Progress on the New York Declaration on Forests:**

**An Assessment Framework and Initial Report**

**Introduction**

**In September 2014, the New York Declaration on Forests (NYDF) was endorsed by over 150 governments, companies and business associations, indigenous peoples’ organizations, and non-governmental organizations at the United Nations Climate Summit**. Since then, the number of signatories has grown to more than 180. These signatories have each committed to do their part to achieve the goals of the NYDF and follow its accompanying action agenda.[[1]](#endnote-1)

**The NYDF has roots in other processes, and its aims overlap with the Sustainable Development Goals and the new climate agreement likely to be adopted in December 2015 in Paris**. The NYDF builds upon other initiatives including the Tropical Forest Alliance 2020. Complementary processes to the NYDF include the 2011 Bonn Challenge to restore 150 million hectares of degraded land by 2020 and the Aichi Biodiversity Targets, which include at least halving the loss of all natural habitats. The NYDF goals have considerable alignment with discussions and agreements on forests that have emerged in the international climate negotiations. Achieving NYDF Goals could translate into 4.5-8.8 billion tons of greenhouse gas (GHG) emission reductions per year by 2030.[[2]](#endnote-2)

**The NYDF is composed of 10 Goals (see** Table 1**). The first and headline goal is to strive to end natural forest loss by 2030, with a 2020 milestone of a 50% reduction.** A number of the other goals are subsidiary to Goal 1, including eliminating deforestation from agricultural supply chains (Goal 2), reducing deforestation from other economic sectors (Goal 3), and supporting alternatives to deforestation driven by poverty and basic needs (Goal 4). The NYDF also formulates a goal of restoring 150 million hectares (ha) of degraded land by 2020 and an additional 200 million ha by 2030 (Goal 5). Another set of goals aim at improving the enabling environment and conditions that help signatories and other entities to meet deforestation-related goals. These goals relate to putting in place a strong international framework (Goals 6 and 7), better fnancing (Goals 8 and 9), and improved forest governance with more secure forest and land rights for local communities and indigenous peoples (Goal 10).

Table 1 The ten NYDF Goals

|  |  |
| --- | --- |
| Goal |  |
| 1 | At least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030 |
| 2 | Support and help meet the private-sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper and beef products by no later than 2020, recognizing that many companies have even more ambitious targets |
| 3 | Significantly reduce deforestation derived from other economic sectors by 2020 |
| 4 | Support alternatives to deforestation driven by basic needs (such as subsistence farming and reliance on fuel wood for energy) in ways that alleviate poverty and promote sustainable and equitable development |
| 5 | Restore 150 million hectares of degraded landscapes and forestlands by 2020 and significantly increase the rate of global restoration thereafter, which would restore at least an additional 200 million hectares by 2030 |
| 6 | Include ambitious, quantitative forest conservation and restoration targets for 2030 in the post-2015 global development framework, as part of new international sustainable development goals |
| 7 | Agree in 2015 to reduce emissions from deforestation and forest degradation as part of a post-2020 global climate agreement, in accordance with internationally agreed rules and consistent with the goal of not exceeding 2°C warming |
| 8 | Provide support for the development and implementation of strategies to reduce forest emissions |
| 9 | Reward countries and jurisdictions that, by taking action, reduce forest emissions —particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities |
| 10 | Strengthen forest governance, transparency and the rule of law, while also empowering communities and recognizing the rights of indigenous peoples, especially those pertaining to their lands and resources |

The NYDF goals follow different structures and formats and may be categorized according to the following typology:

* Quantitative output goals (1 and 5) provide numeric targets, and are timebound.
* Qualitative output goals (3 and 10) are directional, and may or may not be timebound.
* Support goals (2, 4, and 8) refer to inputs intended to contribute to achievement of the output goals.
* Policy goals (6 and 7) refer to the inclusion of forest conservation, restoration, or emission reduction in international agreements.
* Reward goals (9) refer to results-based payments to countries and/or subnational jurisdictions.

**This report puts forward a framework for monitoring progress against NYDF goals over time, and tracks progress one year on form its inception.** The NYDF is ambitious, and its signatories represent a powerful and diverse coalition. Nevertheless, while the NYDF is supported by an action agenda, it does not define a process or establish a forum that would monitor progress towards achieving its goals. This report aims to address that gap.

**For this assessment we have chosen a number of indicators and proxies for measuring progress towards meeting NYDF goals. We anticipate that indicators will improve over time as data gaps are filled.** The different types of goals present distinct challenges for monitoring progress. For example, where goals are framed quantitatively, data are often missing; where goals are framed qualitatively, it can be difficult to agree upon appropriate metrics to measure progress over time.

Detailed summaries of our assessments for each goal are available online at [www.forestdeclaration.org](http://www.forestdeclaration.org). [[3]](#footnote-1)

**Goal 1: At least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030**

*Key messages:*

* *Globally, the annual loss of natural forest area appears to be decreasing, if forest regrowth is counted as offsetting forest clearing.*
* *At the same time, there is no sign that the annual rate at which forests are being cleared or harvested is slowing.*

The NYDF’s overarching goal, Goal 1, aims to end natural forest loss by 2030, with at least a 50% reduction by 2020 as a milestone toward its achievement. While it is clear that natural forests do not include monoculture tree plantations, Goal 1 does not specify whether the aim is to reduce and then end *net* or *gross* loss of natural forests, so we have selected separate proxy indicators to separately monitor both (see Box 1 for definitions):

**Indicator 1.** Annual gross forest/tree cover loss in hectares

**Indicator 2.** Annual net natural forest/tree cover change in hectares

We used data from Hansen et al. (2013, updated on globalforestwatch.org)[[4]](#endnote-3) for Indicator 1 and data from the UN Food and Agriculture Organisation’s Global Forest Resources Assessment[[5]](#endnote-4) (FAO FRA) for Indicator 2. Each indicator reflects different methods and both embody substantial uncertainties (see Data Gaps below and Supplementary Material for more detail).

* The Hansen et al. (2013) dataset uses satellite imagery at a 30 meter pixel resolution and measures areas with tree cover as a proxy for forest area, defined as all vegetation five meters or taller with a default canopy cover threshold of 25%. Global Forest Watch (GFW) illustrates the Hansen et al. 2013 dataset, with the updated 2013 and 2014 numbers using a 30% default canopy threshold.
* The FAO FRA compiles country-level data on forest area reported by countries every five years, where forests are defined based on national land use classifications, with a minimum threshold of 0.5 ha land area, trees over 5 meters and a 10% minimum canopy cover. The figures for net natural forest loss are reported by subtracting the total natural forest area of one reporting period from the previous reporting period.

Despite uncertainties and limitations, the two data sets show directional trends that can serve as proxies for monitoring. Improvements in these proxy measures as well as others may emerge and should also be considered for this purpose in the future.

Box 1: Differentiating Gross and Net Loss of Natural Forests[[6]](#endnote-5),[[7]](#endnote-6),[[8]](#endnote-7)

***Gross* loss of natural forest measures the magnitude of annual change, counting all tree cover or forest area lost, without regard to any regeneration or reforestation of natural forest**. Since 1988, this is the approach that the Brazilian Space Agency (INPE) has taken in its monitoring of deforestation in the Brazilian Amazon, and INPE’s analyses are widely reported and recognized as credible and transparent. In this satellite-based approach, a pixel classified as forest in 1988 may only be deforested once, after which it is masked from future analysis, regardless of whether its conversion to “non-forest” is temporary or permanent. **Ending gross natural forest loss would mean that, from year-to-year, there would be no measurable clearing of natural forest area.**

***Net* loss of natural forests measures the difference in forest area between two points in time, averaged over the number of years between reporting periods.** The United Nations Food and Agriculture Organization’s Global Forest Resources Assessment (FAO FRA) has focused on the monitoring of net changes in forest area every five years, based on tabular data that are self-reported by participating countries – using their own inventories, surveys and maps. Recent data assembled and analysed by FAO FRA allow separation of net natural forest loss from plantation forest data. **Ending net natural forest loss would mean that the measurable area of natural forest regeneration/reforestation is equal to or greater than the measurable area of gross natural forest loss over a specified time period.**

Beyond the existing data limitations described for the Goal 1 indicators, there are important trade-offs between targeting gross vs. net natural forest loss:

* **Gross forest loss treats the loss term as categorically distinct from regeneration/reforestation (noting that the latter is addressed in Goal 5), whereas net forest loss conflates the two.** For numerous purposes, and in most (but not all) cases, newly regenerating/reforesting areas are inferior to the forests that they offset under a net accounting approach. These purposes include:
  + Carbon storage, insofar as it can take 30 to 300 or more years for a given area of natural forest regeneration/restoration to accumulate the amount of carbon emitted to the atmosphere from the same area of natural forest loss, hence regeneration/restoration is unlikely to offset carbon emissions from natural forest loss – especially if the area of “new forest” subsequently experiences cycles of clearing and regrowth. **Zero net forest loss does not equal zero net forest emissions.**
  + Hydrological cycle functions may return more quickly than carbon storage, but it will generally take well over a decade to regain the extent of water-pumping from ground to atmosphere that more deep-rooted natural forests represent, hence the potential impacts on rainfall may be important.
  + Biodiversity differs significantly between older and younger forest areas, with marked differences in plant species composition and structure translating into habitat differences for wildlife.
* **Achieving a target of zero natural forest loss could result in distinctly perverse outcomes for both gross and net accounting approaches, unless modifications or contingencies to the definition of “zero” are developed and applied:**
  + Because **zero gross natural forest loss means no clearing of any natural forest for any purpose**, strict adherence would translate (*inter alia*) to:
    - No construction of roads or other infrastructure in natural forest areas
    - No clearing of natural forest (including secondary forest) for agriculture of any kind, even by small farmers and/or indigenous peoples.
    - Over-management of forests to prevent loss, including where disturbances (e.g. natural fires) are part of maintaining a healthy ecosystem.
  + **Because zero net natural forest loss conflates loss with reforestation/regeneration, this target could be successfully achieved at the same time as the world’s remaining primary/old-growth forests are completely replaced by new regeneration/reforestation.**

**Error! Reference source not found.** illustrates an increase in *gross tree cover* loss (9%) between 2010 and 2014 compared to the preceding decade. There is a spike in gross tree cover loss in 2012, and while there has been a clear downward trend in 2013 and 2014, there is not yet significant progress toward halving gross annual loss by 2020 (Indicator 1). As for *net natural forest* loss, there has been a significant and continuous decline since the 2005 reporting period (a ~25% decrease in the 2015 reporting period compared to the 2001-2010 historical average). The rate of net natural forest loss as estimated by the FAO FRA may be on a trajectory for meeting the milestone of halving natural forest loss by 2020 (Indicator 2).

Recognizing the limitations of the data, we nonetheless hypothesize that, globally, these divergent results reflect an overall trend of increasing natural forest cover re-established on abandoned or degraded land even though regeneration/reforestation is not keeping up with the rate of gross forest cover loss.

Figure 1: Proxy data for *gross* tree cover loss from Global Forest Watch/Hansen (2015) and *net* natural forest loss from FAO (2015). The GFW/Hansen data are shown for a canopy cover setting of 30%, with upper error bars representing estimates at 50% and lower error bars representing estimates at 10% canopy cover. The FAO (2015) data represents the net rate of natural forest loss, aggregated for the 140 countries that reported on this variable.

Box 2: Data Gaps and Limitations[[9]](#endnote-8)

**Data Gaps Goal 1**

A major limitation of the Hansen et al. (2013) data set is that it does not yet distinguish between forest types such as natural forest and plantations, land use designations, nor types of forest disturbance (e.g., logging, fires, storms). Tree cover loss therefore counts tree plantation rotations and shifting cultivations as well as natural disturbances, and does not distinguish them from anthropogenic natural forest conversion. Global Forest Watch (GFW) intends to delineate plantations soon for seven key tropical countries, which will enable their removal from this analysis.

FAO Forest Resources Assessment data relies on self-reporting, hence, the quality and methodology of the data varies between countries. Challenges with the FAO FRA data include: incomplete global reporting (not all countries are accounted for), incomplete country reporting (all forests may not be accounted for), inaccurate reporting (tiers of accuracy vary), data that is not spatially explicit, and changing methods in different reporting periods. There is also a significant time lag between the collecting, reporting and publication of FAO data.

**Goal 2: Support and help meet the private-sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper, and beef products by no later than 2020, recognizing that many companies have even more ambitious targets**

*Key messages:*

* *Half of forests providing pulp for paper are certified. Certified sustainable palm oil has grown to 18% of the global market. Certified sustainable soy is only 2% of the global market, and there is no data on beef. For certified palm and soy, most certification is through sustainability offsets rather than on-site certification.*
* *The number of companies pledging to reduce deforestation has grown rapidly in recent years, though it is still a small percentage of all actors in the market. Companies that endorsed the NYDF generally score on better on sustainability terms.*

Goal 2 targets the elimination of deforestation from the production of a defined set of agricultural commodities by 2020 and reflects a pledge previously made by the Consumer Good Forum, a private sector consortium.[[10]](#endnote-9) Agriculture causes an estimated two-thirds of all deforestation in tropical countries, of which commercial agriculture has grown in the last decade to about 40% and subsistence agriculture accounts for about 33% of the total tropical forest loss.[[11]](#endnote-10) The increasing relevance of commercial agriculture as a main driver of tropical forest loss is closely linked to the growing demand for a relatively small group of agricultural commodities including soy, beef, palm oil, and timber and wood pulp.[[12]](#endnote-11)

To assess progress on the private sector goal of eliminating deforestation from agricultural commodities, we selected two proxy indicators. The first measures the market share of certified sustainable palm oil, soy, paper, and beef. The second measures private companies’ and governments’ level of support for the production of low deforestation, or deforestation-free commodities.

**Indicator 1.** Market share of certified commodities (palm, soy, paper, beef)

**Indicator 2.** Companies’ and governments’ support for the production of low-deforestation, or deforestation-free commodities

These indicators are imperfect measures of progress toward meeting Goal 2 (see Supplementary Materials for details), but can help monitor the direction of progress.

The market share of certified production varies considerably across the key commodities considered for this goal. Between 2008 and 2013, certified sustainable palm oil production increased from 0.6 to 9.8 Million tons (Mt), representing 18% of global palm oil production (Figure 2). However, a large proportion of sustainable production is currently certified through sustainability offsets,[[13]](#endnote-12) which means that forest may still be lost in production. Most production is still uncertified in major producing countries, like Indonesia, Malaysia and Thailand.[[14]](#endnote-13)

In contrast, the share of certified sustainable soybean production remained largely constant between 2008 and 2012 reaching a mere 2.1% of global soybean production by 2012. In the coming years, the Round Table on Responsible Soy expects a doubling in market share amongst its members.[[15]](#endnote-14)

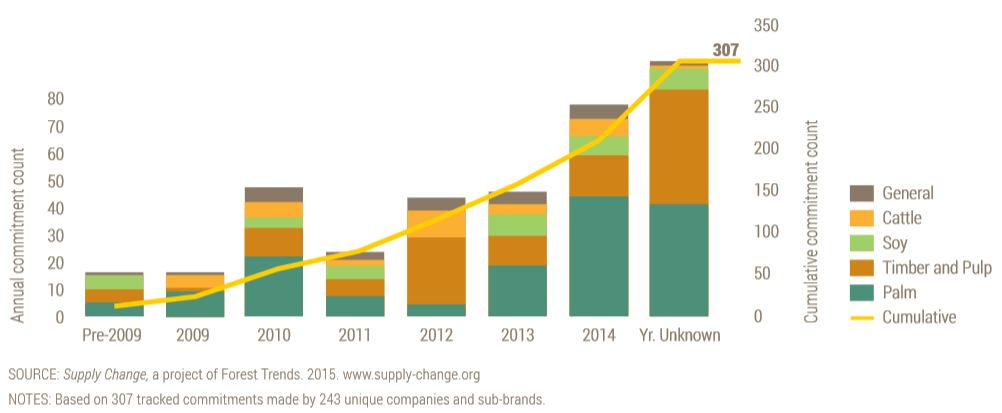
According to the International Council of Forest and Paper Associations half of the total industry-managed forests supplying pulp for paper are certified under Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) certification.[[16]](#endnote-15) Certification has however largely plateaued with three quarters of the certified forest areas located in North America and Western Europe. Increasing certification will require the expansion of certification programs in developing countries.

There is currently no global certification standard on sustainably produced beef with market share information. This leaves a monitoring gap in one of the major deforestation risk commodities.

Figure 2: Total and certified palm oil production, 2008-2012. Source: Climate Focus calculations based on data from FAO and the Roundtable on Sustainable Palm Oil, 2015. [[17]](#endnote-16) Production refers to the Global production of Palm Oil. Certified Production (RSPO) refers to the production that counts with a certification from the RSPO.

According to supply-change.org, the number of pledges made by individual corporations to reduce deforestation risk in their production, supply, and procurement of commodities has rapidly increased since 2009, from single digits to hundreds in September 2015 (Figure 3).[[18]](#endnote-17) The overall percentage of private sector actors in the major commodity supply chains that have made pledges to reduce deforestation remains low, though many larger companies that play a significant role in these supply chains have made commitments.

Figure 3: Number of commitments to reduce deforestation. Source: Forest Trends, Supply-change.org, 2015.

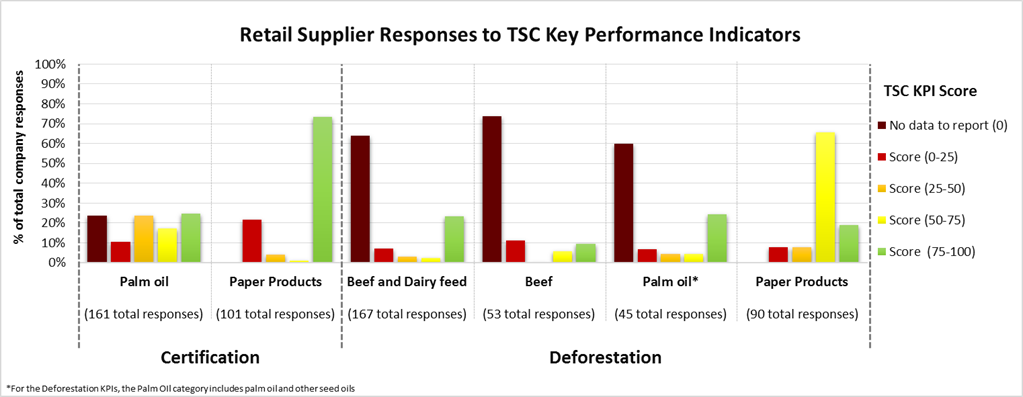


According to the Forest 500,[[19]](#endnote-18) an initiative of the Global Canopy Programme, only 7% of companies identified as ‘powerbrokers’ in these agricultural supply chains have zero or zero net deforestation commitments that cover all agricultural commodities that they produce or procure. Despite this somewhat negative picture, it is encouraging that a large proportion of companies identified by the Forest 500 have commodity-specific production or procurement policies in place. However, a greater number of palm oil and timber companies have commodity-specific commitments relative to those that operate in soy or cattle supply chains (Figure 3: ). Of the companies that have made commodity-specific commitments, those operating in the palm oil sector had the most comprehensive policies scoring on average, 64.5 points out of 100 followed by companies operating in beef (58.6), soy (55.9), and paper (48.2) supply chains.[[20]](#endnote-19)

The Sustainability Consortium[[21]](#endnote-20) develops Key Performance Indicators used by Walmart and others in the industry to annually evaluate supplier performance on a variety of issues including commodity-specific deforestation commitments. Focused on specific product categories such as paper, beef, and seed oils, these indicators enable retailers and other users to track progress on product-level environmental and social issues over time.

Results show that while companies may source certified fibre and palm oil, less than 20% can report that their supply is 100% certified or 100% deforestation free (Figure 4). Additionally, 20% of companies can report zero deforestation in the dairy and beef feed supply chain and the majority of companies do not have data to report on deforestation for either feed or cattle. Availability of data and visibility into long supply chains plays a role in how companies score on these indicators, and data availability may improve as systems are put in place for year over year reporting.

Figure 4 Distribution of scores from retail supplier surveys using The Sustainability Consortium (TSC) Key Performance Indicators on certification and deforestation. Source: The Sustainability Consortium 2015



When compared to companies from other sectors, financial institutions have made the least progress in supporting sustainable, low deforestation or deforestation-free commodity production. Less than 20% of major investors have developed forest safeguards or made commodity specific pledges. However, a number of major banks have signed up to the Banking Environment Initiative and the Natural Capital Declaration suggesting that the risks associated with investing in companies involved in deforestation are beginning to be acknowledged.

Box 3: Data Gaps and Limitations

**Data Gaps** **Goal 2**

There is no standardized way to measure sustainability of production across different commodities. Certification bodies apply variant definitions and standards, and market data is often not publicly available. For beef, one of the most important commodities driving forest loss, there is no widely used international standard. The inclusion of deforestation as a sustainability indicator would improve ease of data collection and increase transparency.

**Goal 3: Significantly reduce deforestation derived from other economic sectors by 2020**

*Key messages:*

* *The most significant non-agricultural drivers of forest loss are infrastructure development, human settlements, and mining.*
* *Though a number of interventions can be highlighted, there is at present no coordinated effort to reduce the forest impact of these sectors.*

Goal 3 focuses on economic sectors other than agriculture. The most significant non-agricultural drivers of deforestation are infrastructure, human settlements, and mining, while logging is the most important driver of degradation.[[22]](#endnote-21) Between 2000 and 2010, infrastructure (construction of roads, railroads, pipelines, hydroelectric dams) and urban expansion (settlement expansion) were each responsible for 10% of all tropical forest loss, while mining accounted for 7% of all tropical deforestation. During the same time period, timber extraction and logging accounted for approximately 52% of all tropical forest degradation, making them the main drivers of total forest degradation (see Goal 10).

Unfortunately, very few countries have disaggregated data that links deforestation spatially to particular drivers. The lack of such global data prevents any adequate measurement of aggregate deforestation from mining, timber, and infrastructure at this time. It is difficult to formulate indicators in the absence of such data. Consequently, we do not define any indicators to track progress toward Goal 3, but rather highlight public and private sector activities that address these drivers and thereby reduce pressure on forests. The outlines of public policies and private sector led initiatives show action that has been or can be taken to support this Goal, though does not assess their effectiveness.

Table 2 summarizes the different public and private sector led polices and activities which aim to address economic drivers of deforestation, other than agriculture.

Table 2 : Public and private interventions addressing economic drivers of deforestation other than agriculture

|  |  |  |
| --- | --- | --- |
| **Sector** | **Public** | **Private** |
| **Mining** | • Fines, control of illegal mining, strengthening the mining approval process and improving mining practices  • Integrated land-use planning  • Protected area laws  • Strengthen law enforcement and governance | • Initiatives that intend to reduce environmental and social impacts of mining through the promotion of responsible practices (e.g. Initiative for Responsible Mining Assurance (IRMA), Alliance for Responsible Mining (ARM)  • Commodity-specific sustainable commitments |
| **Infrastructure** | • Environmental Impact Assessment (EIA) and the Strategic Environmental Impact Assessment (SEA)  • Environmental, social and legal safeguards  • Strengthen law enforcement and governance | *[We do not consider private sector initiatives in infrastructure since it relies on public planning and policies covered in public policy interventions]* |

Enhanced regulation and oversight can better control these drivers and, in some cases, reduce their impacts on forests. Examples of such approaches include:

* Formalization of illegal activities (for example, the Government of Peru is starting to control gold mining by introducing fines for illegal mining, strengthening its mining approval process and improving mining practices,[[23]](#endnote-22) the formalization of charcoal production in the Congo Basin).
* Integrated land-use planning that reconciles mining development and forest conservation (for example, infrastructure development works associated with the Mbalam-Nabeba iron project uses an integrated land use process to take into account biodiversity and forest cover in Cameroon and the Republic of Congo[[24]](#endnote-23)).
* Designation of protected areas (for example, heightened protection of ecosystems is included in the Constitution of Colombia).

There is currently no certification scheme that sets standards for minimizing the impacts of mining on forests. However, the Initiative for Responsible Mining Assurance and the Alliance for Responsible Mining promote responsible practices that reduce environmental and social impacts of mining.

Public finance institutions have environmental, social and legal safeguards to ensure their financing operations do not cause environmental and social damage. The World Bank’s safeguard policies, for example, require its lending be accompanied by environmental and social risk assessments and risk reduction plans. To tackle deforestation, the World Bank puts forward operational principles explicitly addressing forests: e.g. no funding of projects which “would involve significant conversion or degradation of critical forest areas or related critical natural habitat”[[25]](#endnote-24); no financing of “natural forest harvesting or plantation development that would involve any conversion or degradation of critical forest areas or related critical natural habitats”[[26]](#endnote-25). In addition, Social andEnvironmental Impact Assessment are often mandated by law as well as by public and private institutions financing infrastructure.

Box 4: Data Gaps and Limitations

**Data Gaps** **Goal 3**

Data sources that link deforestation to particular economic sectors are largely missing, and would need improvement to develop measurable indicators. Mapped global concession data over time (number, type and area) would be a valuable source of information and would allow assessment of deforestation within and around concession areas.

**Goal 4: Support alternatives to deforestation driven by basic needs (such as subsistence farming and reliance on fuel wood for energy) in ways that alleviate poverty and promote sustainable and equitable development**

*Key messages:*

* *Given the absence of data on interventions to tackle subsistence agriculture as a driver of forest loss, we focus on woodfuel interventions for which data is available.*
* *The global distribution of clean cookstoves is accelerating rapidly, almost doubling year on year from 2008 to 2013. Global investments in clean cookstove distribution have also increased significantly in recent years, peaking at USD 260 million in 2014.*

Goal 4 promotes the reduction of forest loss by supporting economically sustainable alternatives to slash-and-burn farming and unsustainable harvesting of woodfuel from natural forests. Across tropical and subtropical countries in Africa, Asia and America, small scale and subsistence agriculture has been estimated as responsible for about 33% of deforestation,[[27]](#endnote-26) with fuelwood and charcoal responsible for 27-34% of forest degradation with great geographical variation.[[28]](#endnote-27) Small-scale agriculture remains a significant driver of deforestation in Africa.[[29]](#endnote-28) Approximately 275 million people live in woodfuel depletion ‘hotspots’ (where harvesting rates are likely to cause deforestation) where most demand is at unsustainable levels.

There is however no simple correlation between smallholder activities and forest loss, and therefore the relationship between poverty and forest loss is not linear (see Supplementary Materials). Poverty and low yielding production practices can drive forest loss by increasing the land footprint required for subsistence, but not always, and traditional rotational cultivation is not necessarily bad for forests. Conversely, increasing wealth and returns on agricultural investment can drive forest loss by increasing the financial incentive and technological capacity to deforest. The focus of Goal 4 is not just avoiding forest loss associated with poverty, but also avoiding forest loss driven by unsustainable development pathways out of poverty.

There are no global datasets that quantify government, corporate, or civil society support for alternatives to deforestation driven by ‘basic needs’ hence our ability at present to monitor progress toward achievement of this goal is, overall, inadequate. The only relevant area we have identified where an adequate relevant metric is available is the growth in distribution of clean cookstoves that reduce woodfuel consumption. To monitor support for reducing the role of woodfuel harvesting as a driver of forest loss, we present the following two proxy indicators:

**Indicator 1. Global distribution of clean cookstoves**

**Indicator 2. Financial support for woodfuel interventions**

In countries where woodfuel consumption is driving forest degradation, clean cookstove programs can reduce pressure on forests, as well as improve family health by reducing their exposure to indoor smoke and pollution.

Woodfuel is any type of bioenergy derived directly or indirectly from trees and shrubs grown on forest and non-forest land,[[30]](#endnote-29) including firewood and charcoal. In many of the least developed countries, over 90% of households are reliant on woodfuel for cooking.[[31]](#endnote-30) In some countries, estimated GHG emissions from woodfuel consumption are equivalent to, or even greater than, reported emissions from deforestation.[[32]](#endnote-31)

Figure 5 indicates a significant acceleration in the distribution of clean cookstoves globally. Data analysis indicates that a large number of these cookstoves are distributed in those countries where the link between woodfuel consumption and forest loss is well established (see Supplementary Materials). Our detailed analysis also identifies countries where subsistence and smallholder activities correlate with high rates of forest loss, and includes some detailed case studies on specific interventions that aim to reduce poverty among smallholder farmers while successfully protecting the forest.

Figure 5: Estimated distribution of cookstoves worldwide reported by the Partnership for Clean Indoor Air (PCIA) and GACC partners. Source: Climate Focus graphics based on data provided by PCIA and GACC 2013

Finance for woodfuel interventions comes from a broad array of sources, including Official Development Assistance (ODA), carbon markets and other private investments. While measuring total finance flows is not straightforward, a number of data sources do indicate escalating sums. ODA directed to the woodfuel sector has increased from an annual average of USD 3.6 million between 2006 and 2009, to USD 47 million between 2010 and 2013. Data available from Ecosystem Marketplace indicates a ramping up of the value of carbon market transaction for cookstove projects between 2011 and 2012, with a fall back from 2013 to 2014.[[33]](#endnote-32) Cookstove project developers, however, have reported far higher investments. According to a Global Alliance for Clean Cookstoves market survey, cookstove project developers received approximately USD 273 million in 2014 (data provided by GACC, Figure 6). This figure includes ODA and carbon market flows but is significantly higher than figures for previous years.

Figure 5: Woodfuel intervention finance from multiple sources, 2002 to 2014, USD millions. Source: Climate Focus graphics based on data from OECD DAC, and that provided by the Global Alliance for Clean Cookstoves and Ecosystem Marketplace

Box 5: Data Gaps and Limitations

**Data Gaps Goal 4**

OECD countries do not currently distinguish Official Development Assistance flows to subsistence or smallholder agriculture from flows to the agricultural sector in general. Changing this would make it possible to track climate relevant international public finance in this area.

**Goal 5: Restore 150 million hectares of degraded landscapes and forestlands by 2020 and significantly increase the rate of global restoration thereafter, which would restore at least an additional 200 million hectares by 2030**

*Key messages:*

* *Since 2011, countries, regions and organizations have committed to restore 62.59 million ha of forest landscapes under the Bonn Challenge—approximately 42% of the 2020 restoration target.* *To meet the 2020 target, restoration pledges will need to be made at a greater rate to cover the remaining 90 million hectares.*
* *Parties to the U.N. Framework Convention on Climate Change have committed to restore, reforest and/or afforest about 122 million ha as part of their land sector intended nationally determined contributions—approximately 41% of the 300 million ha 2030 restoration target.*

Goal 5 adopts the Bonn Challenge target set in 2011 of restoring 150 million hectares of forest by 2020,[[34]](#endnote-33) and extends it to restore an additional 200 million hectares by 2030. A methodology for tracking progress toward these goals is under development by the International Union for the Conservation of Nature (IUCN) as part of the Bonn Challenge, and its release is expected shortly. Implementation of Goal 5 can be monitored once that methodology becomes available. In the meantime, restoration pledges made under the Bonn Challenge and the U.N. Framework Convention on Climate Change (UNFCCC) are used as imperfect proxies to signal progress, although as yet, implementation of pledges cannot be tracked. It is important to note that the UNFCCC pledges do not specify the type of land being restored (degraded or other landscapes) nor are bound by the same timeframe.

**Indicator 1.** Forest restoration pledges under the Bonn Challenge, in hectares

**Indicator 2.** Afforestation, restoration and reforestation pledges as part of the Intended Nationally Determined Contributions (INDCs) of Parties to the UNFCCC, in hectares

Under the Bonn Challenge, forest landscape restoration is defined as “the long-term process of regaining ecological functionality and enhancing human well-being across deforested or degraded forest landscapes”. Pledges made include activities such as: restoration on forest lands (including planted forests, natural regeneration, or silvicultural enhancement); restoration on agricultural lands (including agroforestry and improved fallows); and restoration on protective land and buffers (including mangrove restoration, watershed protection, and erosion control). IUCN and the World Resources Institute (WRI) have developed a Restoration Opportunities Assessment Methodology (ROAM), and are currently implementing country assessments to help identify where restoration activities should take place.[[35]](#endnote-34)

Figure 6 displays the size of the Bonn Challenge commitments and the year they were made. Since 2011, 14 countries, 3 sub-national regions, and 2 organizations have committed to restore 62.59 million ha of forest landscapes under the Bonn Challenge—equal to 41.7% of the 150 million ha 2020 restoration target. With projected announcements during the climate conference in Paris (COP21), it is expected that this cumulative amount will increase to 83.76 million ha of forest landscapes – equal to 55.8% of the target. While the number and size of commitments have increased over time, they have been clustered around major, multi-stakeholder agreements, primarily the start of the Bonn Challenge in 2011 and the NYDF in 2014. Further commitments to the Bonn Challenge/NYDF process will need to be made at a faster rate to meet the remaining restoration target by 2020.

Figure 6: Current status of Bonn Challenge pledges relative to the 2020 target to have 150 million ha under restoration pledges by 2020.

Since early 2015, 68 parties to the UNFCCC have submitted INDCs containing land sector targets. The total afforestation, forest restoration, and reforestation pledges is estimated at 121.7 million hectares—equal to 41% of the 300 million ha 2030 restoration target. The specificity of forestation and restoration pledges vary significantly, with some having explicit hectare targets, regions and timelines, and others providing a percentage forest cover goal for the country or targets conditional upon support. Our rough estimate provides a glimpse of the potential restoration efforts underway, and shows a path for reaching the 2030 target.

Box 6: Data Gaps and Limitations

**Data Gaps Goal 5**

Information on specific restoration activities and initiatives is currently spread across a number of databases, including those provided by the United Nations Environmental Programme World Conservation Monitoring Center and the Society for Ecological Restoration. Standardizing this information, and compiling global aggregate data would make it possible to present global aggregates with greater confidence.

**Goal 6: Include ambitious, quantitative forest conservation and restoration targets for 2030 in the post-2015 global development framework, as part of new international sustainable development goals**

*Key messages:*

* *An ambitious and quantitative target for forest conservation has been adopted as part of the Sustainable Development Goals to halt deforestation by 2020.*
* *An ambitious and quantitative target for restoration has not been adopted.*

The Sustainable Development Goals (SDGs) were adopted on September 25th, 2015, and replace and amend the Millennium Development Goals, which expire in 2015. Currently, indicators to monitor implementation and report on progress toward meeting the SDGs and related targets are under development by an Inter-Agency and Expert Group. Pending completion of the work of this group, we assess the extent to which NYDF Goal 6 is reflected in the SDGs based on two indicators:

**Indicator 1**. Inclusion into the SDGs of an ambitious, quantitative 2030 target for forest conservation.

**Indicator 2.** Inclusion into the SDGs of an ambitious, quantitative 2030 target for forest restoration

SDG 15 aims to:

Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Two of the nine targets under SDG 15 relevant to the NYDF are Targets 15.1 and 15.2:

Target 15.1

By 2020, ensure the conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains, and drylands, in line with obligations under international agreements.

Target 15.2

By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests, and substantially increase afforestation and reforestation globally.

‘Halt deforestation’ by 2020 in Target 15.2 is a forest conservation target. It is quantitative and seeks to reduce global deforestation to zero by 2020. This would require rapid success in reducing deforestation. It is more ambitious than the target under the NYDF Goal 1, which aims to halve deforestation in natural forests by 2020, and represents a significant increase in ambition from earlier SDG proposals to halt deforestation by 2030.

In contrast, the SDG sub-targets on the restoration of degraded forests and for “substantially” increasing reforestation are not quantitative targets. A placeholder for a quantifiable target (‘increase reforestation by [x]%’) was in all iterations of the draft text from initial proposals made in July 2014 up to the final stage of the negotiations in July 2015. The absence of quantifiable targets for forest restoration and reforestation signals a significant lack of ambition considering other global targets (NYDF, Bonn Challenge and Aichi Targets) all include quantifiable targets on forest restoration.

**Goal 7: Agree in 2015 to reduce emissions from deforestation and forest degradation as part of a post-2020 global climate agreement, in accordance with internationally agreed rules and consistent with the goal of not exceeding 2°C warming**

*Key messages:*

* *It is not possible to pre-judge the contents of the post-2020 agreement to be reached in December 2015, though it is unlikely that the main agreement will include more than a high-level reference to forests.*
* *Of the 122 countries that have submitted public outlines of their post-2020 commitments (intended Nationally Determined Contributions), 40 have included specific actions on land use and forests in their target, while 18 have excluded land use and forests from their target.*

Goal 7 aims for the inclusion of forest-related mitigation measures in a post-2020 global climate agreement, the draft text of which is still subject to intense negotiations but expected to be completed in Paris in December 2015. This so-called Paris Agreement is expected to be high-level in nature, build on existing decisions of the UN Framework Convention on Climate Change (UNFCCC), and to be accompanied by bottom-up commitments of countries to domestic mitigation efforts (communicated through Intended Nationally Determined Contributions, or INDCs).

We have chosen two indicators that assess whether and to what extent a Paris Agreement provides a framework that promotes a reduction of emissions from deforestation and forest degradation (REDD+).

**Indicator 1.** References to land use (including REDD+) in the Paris Agreement text

**Indicator 2.** References to land use (including REDD+) in submitted INDCs

We have further reviewed progress towards the finalization of an operational framework in support of REDD+.

Throughout 2015, various versions of the negotiating text have included proposals for the inclusion of the land use sector, including in the preamble and in the context of accounting rules and market mechanisms. At present, the overall structure and substance of the agreement is intensely debated, and major changes to the text can be expected in Paris. While the final text may contain high level references to land use or the forest sector, Parties may settle the main implementation questions in later decisions of the Conference of the Parties, e.g. principles of accounting for land-use emissions.

With respect to the operational framework for REDD+, the Subsidiary Body for Scientific and Technological Advice adopted three new methodological decisions on REDD+ in 2015, essentially completing the REDD+ methodological framework.[[36]](#endnote-35) The Green Climate Fund is, however, still in the process of completing its modalities for defining how it would make results-based payments for REDD+. It is as yet not yet clear if Parties will formally recognize existing UN Framework decisions in the text of the Paris Agreement, a move that would clarify the continuity and validity of these decisions.

By October 2015, 122 countries have submitted INDCs and so, while more are likely to come and existing INDCs may be changed before a new international climate change agreement is reached, some initial assessment is already possible. Forty Parties have specified some form of specific land-use activities within their INDCs, usually in addition to their broader economy-wide targets. The content of these targets varies widely, from specific emission reduction targets to reductions in deforestation, increases in forest cover or increasing the share of protected areas. A large number of these do not specify an additional target, but rather state the proportion of their overall emission reductions that they intend to achieve through the land-use sector. Some 18 countries have, in addition, specifically excluded the land-use and/or forest sectors from their targets.

**Goal 8: Provide support for the development and implementation of strategies to reduce forest emissions**

*Key messages:*

* *Commitments of Official Development Assistance (ODA) to reduce forest emissions have been increasing from approximately USD 200 million in the early 2000s, to approximately USD 1 billion today.*
* *There is not sufficient data to track public finance flows between developing countries, or domestic spending in developed and developing countries to reduce forest-related emissions, but indications are that this is increasing.*
* *Neither is there sufficient data to track private investment in strategies to reduce forest emissions but indications are that this is increasing.*

We interpret NYDF Goal 8 to refer to the provision of financial and other support for efforts to reduce forest emissions, whether through policies, laws and government programs, or private sector initiatives, efforts of local communities and indigenous peoples or local projects. Such broad interpretation of the Goal reflects the diversity of signatories to the NYDF and the range of their capacities to deliver on this Goal.

There is some overlap between NYDF Goal 8 and several other NYDF Goals, and we have therefore made some effort to avoid double counting by excluding financial support for payments for Verified Emissions Reductions, which is covered by Goal 9.

Within that context, we present here three proxy indicators for monitoring such support, recognizing that some overlap with other NYDF Goals may still remain:

**Indicator 1.** Climate relevant Official Development Assistance for forests committed by OECD donor countries and disbursed either bilaterally or through multilateral institutions

**Indicator 2.** Domestic public spending in NYDF signatory countries that includes intent to reduce forest emissions

**Indicator 3.** Private support for strategies to reduce forest emissions

In addition, we have looked at South-South cooperation in support of forest protection, contributions by indigenous peoples, and contributions by non-governmental organizations (NGOs). These are presented in more detail in the Supplementary Material.

In 2013, the Development Assistance Committee of the Organisation of Economic Cooperation and Development (OECD DAC) presented for the first time an integrated picture of bilateral and multilateral commitments of climate relevant ODA.[[37]](#endnote-36) This reveals that in 2013, bilateral and multilateral climate mitigation forestry ODA was USD 763.5 million (excluding results-based payments for REDD+). The majority (62%) came from bilateral sources, and the majority (also 62%) was reported as a grant (Figure 7).

Figure 7: Total bilateral and multilateral ODA to all developing countries committed to the forestry sector in 2013 with climate mitigation as a principal or significant objective, excluding REDD+ results based payments, in USD millions, broken down into channel and financial instrument. Source: Climate Focus calculations based on OECD-DAC, Climate Related Development Finance for 2013.

**Loan**

**Equity**

**Grant**

**Multilateral**

**Bilateral – mitigation significant**

**Bilateral – mitigation principle**

In the 12 years from 2002 to 2013, though varying significantly from year to year, bilateral ODA for reducing forest emissions in developing countries increased from an annual average of USD 365 million during the 2002-2007 period to USD 744 million in 2008-2013 (Figure 8). Indications are that 2014 commitments are over USD 1 billion, the strongest to date, though this has yet to be captured in OECD DAC reported figures.

Figure 8: Total bilateral ODA to reduce forest emissions, committed to all developing countries from 2002 to 2013. Broken into ODA for which climate mitigation was a principal objective, or a significant objective, in constant USD millions (2013 value). Source: Climate Focus calculations based on OECD DAC dataset: Aid Activities targeting Global Environmental Objectives

No global data set reports relevant domestic public spending, and data is patchy for developed and developing countries. Nonetheless, there is evidence of increased spending on forest management – for example, in the United States and Europe. In some developing countries, domestic public spending on forest conservation in developing countries is equal to or greater than that received from international sources (see Supplementary Materials for details).

Impact investments in forest conservation and the production of sustainable forest-related commodities, while still relatively small, are also growing. Large investors, including major international banks and sovereign wealth funds, are developing sustainable investment policies that may reduce emissions from deforestation, although these policies are still aspirational, and their impact is, as yet, difficult to assess. NGOs and indigenous peoples also make significant contributions toward strategies to reduce deforestation. It is difficult to distinguish NGO ‘own fund’ contribution from ‘pass through’ spending of other e,g., public resources, though this has been attempted in places. For example, it is estimated that between 2007 and 2013, four international NGOs contributed an estimated USD 100 million towards reducing deforestation in the Amazon Basin (see Supplementary Materials for details).[[38]](#endnote-37)

Box 7: Data Gaps and Limitations

**Data Gaps Goal 8**

Reliable data is only currently available for climate ODA commitments by OECD countries. It would increase transparency for OECD members to complete disbursement data in DAC statistics, and for non-OECD countries to also report on international financial assistance. There is also no globally harmonized data reporting of domestic public spending on forests that allows for an accurate assessment of own-country contributions on strategies to reduce forest loss. Nor is there adequate information on the scale or impact of private sector and other investments for forests.

**Goal 9: Reward countries and jurisdictions that, by taking action, reduce forest emissions —particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities**

*Key messages:*

* *Between 2008 and 2014, over USD 3 billion has been committed, almost exclusively from international public sources, for performance based REDD+ payments. Disbursements, at just over USD 1 billion, have lagged behind commitments.*
* *The forest carbon market expanded rapidly up to 2011 but has since fallen back, largely due to lack of demand for forest carbon credits outside of the voluntary market.*

Goal 9 encourages signatories to put in place financial incentives that reward tropical forest countries and jurisdictions through payments, especially for verified emission reductions (VERs) from forests. Over the past decade, a range of approaches to making private and public payments for ecosystem services have been developed. Payments for VERs is one type where, it is typically assumed that forest emissions reductions, measured against a baseline or reference level, will ultimately qualify for payment. There is a small but growing body of experience with payments for VERs as part of REDD+ result-based payment schemes, including Norway’s bilateral partnerships with Brazil, Indonesia, and Guyana, as well as the German REDD+ Early Movers Program. There is also private sector interest in rewarding VERs through carbon markets.

We propose two indicators to track progress on Goal 9:

**Indicator 1.** International payments for VERs disbursed through multilateral and bilateral funds and public programs

**Indicator 2.** The value of purchases of forest VERs through voluntary and compliance markets

Between 2008 and 2014, a number of bilateral and multilateral results-based programs for reducing forest emissions were established, with over USD 3 billion committed (Figure 9). These have been funded, to a large extent, through Norway’s International Climate and Forests Initiative, although Germany, the UK, and other donor countries have also made significant contributions. Norway’s contribution to Brazil’s Amazon Fund is a preeminent example of performance-based payments for avoided deforestation.

Disbursements to payment for performance schemes, at just over USD 1 billion, have generally lagged behind donors’ financial commitments. This is because forest countries have been engaging in the past years in a “readiness” process—building national strategies, developing monitoring systems, etc.—and only more recently are starting to actually implement programs that are expected reduce emissions from deforestation and forest degradation in the coming years. Internal procedures and administrative requirements of donors and multilateral funds have also delayed disbursements.

Figure 9: Commitments to and disbursements from international payment for performance funds as of 2014 in USD millions.

Between 2005 and 2008, the value of the forest carbon market expanded steadily from USD 8 million to USD 32 million (see Figure 10). The market then expanded rapidly up to 2011, climbing to USD 237 million over three years, representing an average annual growth of 90%. This was driven primarily by an increase in the size of the voluntary carbon market, which in 2011 represented 73% of the forest carbon market. However, this increase has not continued to 2013, when the value of the forest carbon market fell back to approximately USD 150 million.[[39]](#endnote-38)

Figure 10: Size of the forest carbon market from 2005 to 2013 in value (USD millions). Source: Climate Focus calculations with data provided by Forest Trends State of the Forest Carbon Market 2014 (excluding REM payments, which are recorded under Indicator 1)

Greater market demand for forest VERs will require the integration of forest carbon credits into emissions trading systems, which will encourage entities covered under an Emission Trading System to purchase credits as offsets. However, market-based systems such as the Clean Development Mechanism and the European Emission Trading System have restricted the generation and use of forest carbon credits due to concerns over the permanence of emission reductions represented by forestry activities, and the potential for an oversupply of REDD+ credits to remove incentives for other offset projects. Though California’s Cap-and-Trade Program does not currently allow for the use of international forest offsets, this may change in the future. Similarly the International Civil Aviation Association may provide opportunities for airlines to use forest VERs to offset airline emissions.

Box 8: Data Gaps and Limitations

**Data Gaps Goal 9**

Most payment for performance programs focusing on forests and REDD+ have publicly accessible and up-to-date information on commitments and disbursements. However, this is not the case across all funds. Regular updates on commitment and disbursement levels by all payment for performance programs would help assessing progress achieved under this goal.

**Goal 10: Strengthen forest governance, transparency and the rule of law, while also empowering communities and recognizing the rights of indigenous peoples, especially those pertaining to their lands and resources**

*Key messages:*

* *Forest governance seems to have modestly improved in recent years, coinciding with a significant expansion of bilateral and multilateral programs providing financial support to that end.*
* *Levels of illegality remain high in the wood-based products market.*
* *Forest communities continue to live under the threat of violence, with killings related to land disputes continuing unabated.*
* *The proportion of total forests over which indigenous people and local communities have recognized rights has increased by over one third since 2002, though the rate of recognition has decreased in recent years.*

Goal 10 draws attention to the need for improving forest governance. Particular focus is given to transparency, rule of law, community empowerment, and indigenous peoples’ rights – especially their rights to land and resources. Given the complex nature of this goal, efforts to monitor it are bound to be imperfect. For the purposes of this assessment, we have chosen three proxy indicators for which some relevant data are available:

**Indicator 1.** Improvement of forest governance through the strengthening of institutions and policies

**Indicator 2.** Extension and strengthening the rule of law, as indicated by illegal logging as a percentage of total logging, the quantity of imports of timber with high risks of illegality, and the number of killings related to land disputes

**Indicator 3**. Recognition of indigenous peoples’ and local communities’ rights to land and forest resources.

Many countries have made progress in strengthening institutions and policies related to forest governance. The governance frameworks across five timber producing countries (Brazil, Cameroon, Ghana, Indonesia and Malaysia), measured in policy scores by Chatham House, experienced – on average – notable overall progress between 2008 and 2013 (Figure 11), though levels of improvement vary substantially between countries.[[40]](#endnote-39) The strength of demand-side policy frameworks governing the timber trade across the seven consumer and processor countries (China, France, Japan, the Netherlands, UK, US, Vietnam) also increased (Figure 12).

Figure 11. Weighted average policy scores across five producer countries in 2008 and 2013. Climate Focus calculations based on data provided by Chatham House.

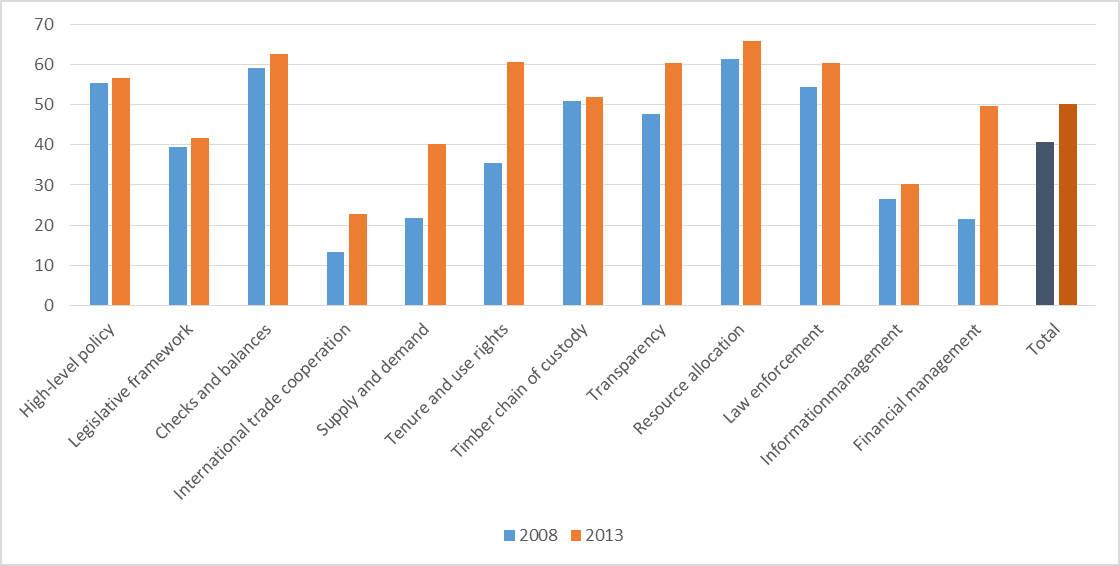
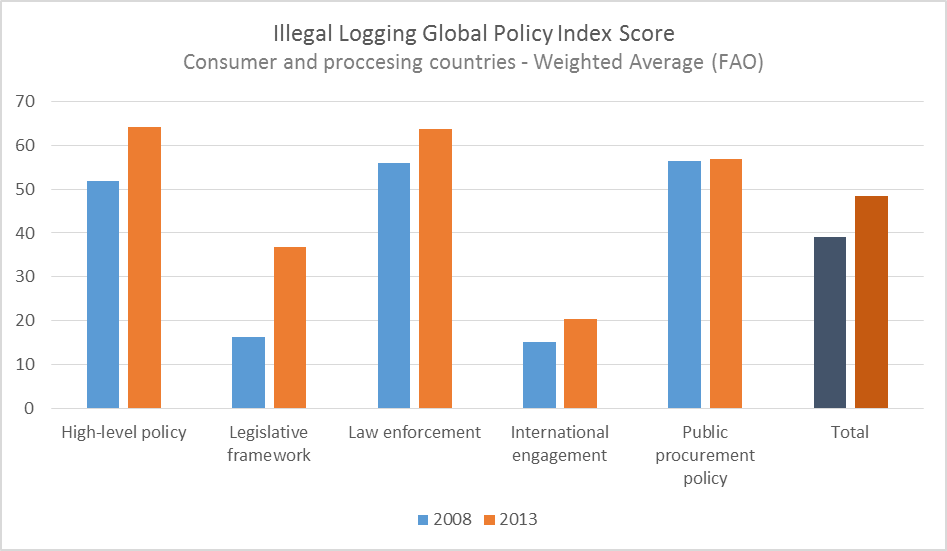


Figure 12. Weighted average policy scores across seven consumer and processor countries in 2008 and 2013. Source: Climate Focus calculations based on data provided by Chatham House



Average scores in producer countries have increased across all policy areas, with particular progress achieved in policies to ensure greater matching of (legal) supply and demand, and to strengthen tenure and use rights and financial management regimes. Efforts toward international trade cooperation, while still nascent, have also seen improvement, in large part through the development of systems under the EU Forest Law Enforcement Governance and Trade (FLEGT) bilateral Voluntary Partnership Agreements. In other areas progress has been relatively limited, and in several countries policy frameworks in several areas have weakened over time.

There has similarly been some progress across all areas in consumer and processor countries. The most notable gain was made in legislative frameworks, which reflects a number of new and enhanced laws on timber legality across a number of developed countries and in Vietnam. In contrast, in China and Japan legislation to address illegal imports remains largely absent. Other policy areas in demand-side countries generally showed incremental improvement, with international engagement remaining by far the lowest scoring policy area, which in particular reflects limited international engagement on forest governance on the part of Asian consumer and processor countries.

Though it is not possible to accurately quantify international finance flowing toward forest governance and tenure, indicative evidence shows that, since 2002, the number of bilateral and multilateral programs that explicitly fund the improvement of forest governance and land rights has increased significantly. The emerging importance of REDD+ finance has further increased attention being paid to governance and tenure issues. A substantial portion of finance dedicated to funding national REDD+ Readiness Preparation Programs – including USD 360 million under the Readiness Fund of the Forest Carbon Partnership Facility and substantial co-financing from the UN-REDD Program and other donors – has been channelled toward governance, typically 16-20% of national readiness budgets. The World Bank’s Forest Investment Program (FIP) has established a USD 50 million Dedicated Grant Mechanism for Indigenous Peoples and Local Communities to support their participation in the FIP, while an International Land and Forest Tenure Facility established by the Rights and Resources Initiative in 2015 aims at a budget of USD 20-50 million/year for the next five years to unlock financing for land rights, though at present it has only raised a fraction of this amount.

According to Chatham House, the proportion of imports of wood-based products at high risk of illegality has fluctuated <0.5% in the decade between 2003 and 2013 (Figure 13). It should be noted however that statistical measures of the rate of illegal logging and associated trade are inherently problematic precisely because it is illegal.

Figure 13. Levels of overall imports and imports at a high risk of illegality into the 10 importing countries, expressed in terms of million m3 of RWE and in percentages. Source: Climate Focus calculation based on data provided by Chatham House.

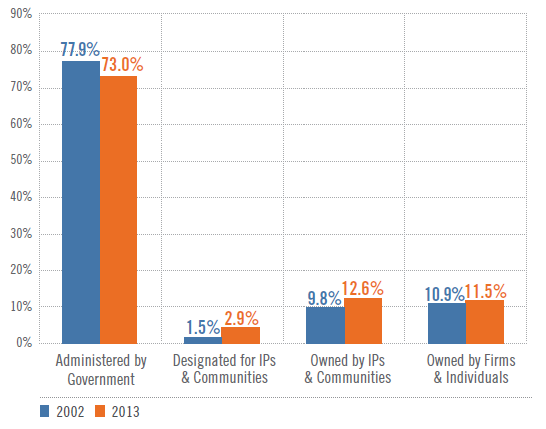
Introducing greater control over the timber trade and banning the import of illegally harvested wood can reduce the level of imports associated with deforestation. The United States, the European Union and Australia introduced import bans for illegal timber and timber products in 2008, 2010 and 2012 respectively. Revision of procurement rules by governments may also prevent tropical forest loss. According to a UN study, 56 countries had adopted laws on green public procurement by 2012.[[41]](#endnote-40)

As a direct index of forest governance, few metrics are more tangible than the incidence of violence related to conflicts over land and resources.[[42]](#endnote-41) From 2010-2014 at least 523 activists working on land/resource conflicts were murdered.[[43]](#endnote-42) There is no clear trend in the annual data, which very likely under reports the extent of the violence (see Supplementary Material for details).

The share of the proportion of total forests over which indigenous people and local communities have recognized rights increased 38% over the period 2002-2013. The vast majority of forest lands with rights recognized for indigenous peoples and local communities are in low and middle income countries, where such rights exist over 30.1% of forest land. While this share has increased from 21.2% in 2002, the rate of recognition has slowed dramatically since 2008, with less than half the area recognized between 2008 and 2013 compared with 2002-2008.

Figure 14 compares the percentage of land area falling under the respective ownership categories identified by the Rights and Resources Initiative in 40 countries for which data is available for both 2002 and 2013.[[44]](#endnote-43) It shows that, while the proportion of total forests over which indigenous peoples and local communities have recognized rights remains relatively small at 15.51%, the share has increased by a third over the period 2002-2013.

Figure 14 Global change in statutory forest land tenure 2002-2013, by percent. Source: RRI, 2014a.



Box 9: Data Gaps and Limitations

**Data Gaps Goal 10**

The assessments of forest sector governance still only include relatively few countries and so only provide a partial picture of global progress. Expanding this to more countries would enable a more complete assessment to be undertaken. There also remains little research on the extent of forest land over which ownership is contested by indigenous peoples and local communities or regarding which they have sought or desire formal titling. Understanding this better would help to put the data on recognition of land and forest rights in context and enable a better assessment of how much more needs to be done.

**Summary of our Assessment**

Goal 1. At least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030

The combined efforts of public and private actors in the past years have led to a slowing down of the rate of total forest area loss. But at the same time, natural forests continue to be cut down at alarming rate. More has to be done to achieve the overarching goal of the NYDF to eliminate natural forest loss by 2030, with at least a 50% reduction by 2020 as a milestone toward its achievement.

Goal 2. Support and help meet the private-sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper, and beef products by no later than 2020, recognizing that many companies have even more ambitious targets

The increasing relevance of commercial agriculture as a main driver of tropical forest loss is closely linked to the growing demand for a relatively small group of agricultural commodities including soy, beef, palm oil, and timber and wood pulp. Recent data show that palm oil certification has jumped from 3 to 18 percent of the market between 2008 and 2013. During this same period, the market share for certified soy and paper remained stable, at 2 percent and 50 percent, respectively.

Goal 3. Significantly reduce deforestation derived from other economic sectors by 2020

While global data tracking deforestation linked to other economic sectors (infrastructure, human settlements, mining, timber) are lacking, there are numerous efforts to reduce deforestation associated with economic sectors (e.g. mining, infrastructure) other than commercial agriculture. These include a mix of supply and demand side measures, including the establishment of protected areas, law enforcement, environmental and social impact assessment requirements, and investment safeguards.

Goal 4. Support alternatives to deforestation driven by basic needs (such as subsistence farming and reliance on fuel wood for energy) in ways that alleviate poverty and promote sustainable and equitable development

There is no simple correlation between smallholder activities and forest loss, and the relationship between poverty and forest loss is not linear. Still, it is estimated that across tropical and subtropical countries in Africa, Asia, and America, small scale and subsistence agriculture is responsible for approximately 30% of deforestation, with fuelwood and charcoal responsible for approximately 25% of forest degradation. In countries where woodfuel consumption is driving forest degradation, clean cookstove programs can help reduce pressure on forests, as well as improve people’s health by reducing exposure to indoor smoke and pollution. The distribution of clean cookstoves has increased significantly over the past years, and constitutes the principal area of measurable progress related to addressing deforestation driven by basic human needs.

Goal 5. Restore 150 million hectares of degraded landscapes and forestlands by 2020 and significantly increase the rate of global restoration thereafter, which would restore at least an additional 200 million hectares by 2030

This goal adopts the Bonn Challenge target set in 2011 of restoring 150 million hectares of forest by 2020, and extends it to restore an additional 200 million hectares by 2030. Since 2011, 9 countries, 2 sub-national regions, and 1 multinational region have pledged to restore 59.58 million ha of forests. The INDCs of those Parties that committed to afforestation, reforestation and restoration in their mitigation commitments cover about 122 million ha.

While there has been clear progress, further commitments to the Bonn Challenge/NYDF process are needed, and must be implemented at a faster rate, to meet the remaining 60% of the restoration target by 2020.

Goal 6. Include ambitious, quantitative forest conservation and restoration targets for 2030 in the post-2015 global development framework, as part of new international sustainable development goals

Clear progress has been made in anchoring the commitment to reduce deforestation in the Sustainable Development Goals (SDGs). In September 2015, the United Nations agreed as part of the SDGs to “[b]y 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests, and substantially increase afforestation and reforestation globally”, a goal that is more ambitious than the NYDF.

Goal 7. Agree in 2015 to reduce emissions from deforestation and forest degradation as part of a post-2020 global climate agreement, in accordance with internationally agreed rules and consistent with the goal of not exceeding 2°C warming

Whether and how this agreement to reduce deforestation will be reflected in a new international climate agreement to be adopted in December 2015 in Paris remains to be seen. Some progress on the country level is notable: Of the 122 countries with mitigation pledges, 40 have included specific actions on forests and land use.

Goal 8. Provide support for the development and implementation of strategies to reduce forest emissions

Commitments of financial support for the reduction of deforestation are also increasing, although disbursements remain slow. From 2002 to 2013, though varying significantly from year to year, bilateral ODA for reducing forest emissions in developing countries increased from an annual average of USD 365 million during the 2002-2007 period to USD 744 million in 2008-2013. Though not yet captured in OECD reported figures, indications are that 2014 commitments are over USD 1 billion, the highest to date.

Goal 9. Reward countries and jurisdictions that, by taking action, reduce forest emissions —particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities

A growing body of experience with payments for emission reductions as part of result-based payment schemes that increase incentives for reduced deforestation exists, including Norway’s bilateral partnerships with Brazil, Indonesia, and Guyana, as well as the German REDD+ Early Movers Program. Private sector interest in rewarding emission reductions through carbon markets also exists.

Between 2008 and 2014, over USD3 billion in public finance was pledged for results-based finance for forest emission reductions and roughly USD 1 billion was disbursed. During the same period, the market for forest carbon grew from USD 32million to USD 150 million, peaking at USD 237 million in 2011.

Goal 10. Strengthen forest governance, transparency and the rule of law, while also empowering communities and recognizing the rights of indigenous peoples, especially those pertaining to their lands and resources

A number of countries have made progress in strengthening institutions and policies related to forest governance, which is essential to the protection of forests and livelihoods. Particular progress has been achieved in policies to ensure greater matching of (legal) supply and demand, and to strengthen tenure and use rights, and financial management regimes. The share of the proportion of total forests over which indigenous people and local communities have recognized rights increased 38% over the period from 2002-2013. The rate of recognition has, however, slowed dramatically since 2008.

**Conclusions**

**One year after the adoption of the NYDF is too soon to assess on-the ground progress made by signatories in working towards the goals**. In the last year however many important new initiatives have been launched, pledges have been made, and programs started. It will take months, sometimes years before these initiatives translate into measurable progress. They are however important first steps towards achieving the NYDF goals.

**Since the signing of the NYDF in September 2014, a number of early achievements have emerged.** Most notable among these has been the inclusion in the final text of the Sustainable Development Goals of the ambitious target to halt deforestation by 2020. Also noteworthy has been national government pledges to restore nearly 40 million hectares of forest, tripling the previous figure. In terms of forest finance, early indications are that commitments of ODA in 2014 to reduce emissions from the forest sector were the largest to date, though these have yet to be officially reported. Finance for clean, efficient cookstoves, in particular, has accelerated at a dramatic rate. Large private sector actors continue to make sustainability pledges, with one third of all pledges to reduce or eliminate deforestation from supply chains made since 2014.

**Action has been taken across all sectors and geographies.** Governments work towards strengthening forest governance and supporting REDD+ strategies. An increasing number of private sector actors have started to promote sustainability across their supply chains, and civil society works across all goals in support of Governments and private actors. Action has also been seen among developed as well as developing countries and across all continents.

**Important data is missing.** To be able to assess progress towards the NYDF goals over time, it is essential that data gaps are being filled. For some of the goals data are missing almost completely (Goal 3 and 4) while others show important data gaps (Goal 10, 8, 9) or data come with significant limitations (Goal 1, 2). We encourage all signatories of the NYDF to work towards an improved availability and quality of data.

**Overall, we conclude that, across the diverse set of goals, the data are mostly trending in the right direction.** Yet, more needs to be done, and progress will need to accelerate if the timebound targets are to be met.

1. See UN Climate Summit, 2014, Section 1, New York Declaration on Forests, available at <http://www.un.org/climatechange/summit/wp-content/uploads/sites/2/2014/07/New-York-Declaration-on-Forest-%E2%80%93-Action-Statement-and-Action-Plan.pdf> [↑](#endnote-ref-1)
2. Ibid. [↑](#endnote-ref-2)
3. Referred to as “Supplementary Materials” throughout this Report. [↑](#footnote-ref-1)
4. Hansen et al. (2013), Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend, “Hansen/UMD/Google/USGS/NASA Tree Cover Loss and Gain Area.” University of Maryland, Google, USGS, and NASA. Accessed through Global Forest Watch on 12 August 2015. [www.globalforestwatch.org](http://www.globalforestwatch.org/" \t "_blank). [↑](#endnote-ref-3)
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17. The Roundtable for Sustainable Palm Oil (RSPO) is integrated by oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/investors, and environmental and social non-governmental organizations in order to develop and implement global standards for sustainable palm oil (www.rspo.org). [↑](#endnote-ref-16)
18. The Supply Change project is an initiative that provides information on the extent of commodity specific commitments made by governments, companies, investors and civil society. The project is in the early stages of development and so far only provides information on the number of commodity specific commitments made by businesses. http://www.supply-change.org. [↑](#endnote-ref-17)
19. The Forest 500 identifies, assesses and tracks the key powerbrokers that together can virtually eradicate deforestation from forest risk commodity supply chains. The initiative ranks companies, investors, and jurisdictions based on the policies that they have in place to reduce or remove deforestation from their supply chains. Powerbrokers are selected based on two broad criteria: (1) risk of being linked to tropical deforestation through involvement in or potential exposure to forest risk commodity supply chains; and (2) influence within the political economy of tropical deforestation, whether in terms of supply chain sustainability, agricultural development or tropical forest conservation.  [↑](#endnote-ref-18)
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