

Potential NGO contributions to UNFF Monitoring Obligations:

The Example of Global Forest Watch

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Draft background paper for the November 2001 UNFF Expert Meeting on Monitoring, Assessment and Reporting on Progress Toward Sustainable Forest Management

Overview:

While considerable work has gone into global assessments and in developing criteria and indicators to allow for comparable reporting on forest trends between countries, these efforts are stymied---in part--- due to:

1. *Lack of data.* global monitoring (UNFAO, ENECE, ITTO, WCMC, others) has been primarily limited to tracking forest cover and change, the degree to which forests are protected (at least on paper, as parks and reserves) and information on the production and trade of wood products.
2. *Problems with the comparability and completeness of existing datasets.* At national and sub-national levels, government agencies often hold a wealth of data on their forests. However these often are not readily accessible, and due to differences in how variables are defined and data collected, it is often difficult to integrate and compare this information between administrative jurisdictions.

As a result, regional and global reporting efforts end up manipulating and recycling the same limited datasets, relying on qualitative information to capture trends, and/or providing incomplete results for countries.

Monitoring, assessment and reporting was once the purview of government agencies. However, thanks in part to new low-cost information technologies, non-governmental organizations (NGOs) are playing an increasingly important role in collecting, analyzing and reporting data on key environmental trends. NGOs can play an important role in filling key data gaps needed to take global monitoring and assessment work forward. This paper describes, very briefly, Global Forest Watch's monitoring role as an example of what NGO's might contribute, and how such information might be relevant to UNFF's work.

About Global Forest Watch:

Launched in February 2000 as a project of the World Resources Institute, Global Forest Watch (GFW) is a network of 75 NGO's and universities monitoring forest development trends in major forested regions of the world. Ongoing monitoring and mapping work

currently covers 12 countries which house 45 percent of the world's forests¹. GFW's objective is to promote transparency and accountability in the forest sector, by documenting:

1. Logging, mining, road building and other development, which could result in changes in forest condition and cover in the absence of appropriate planning and management interventions.
2. Key actors behind that development (eg. companies, individuals and others who hold leases for extractive activities within forests)---ie. those responsible for assuring development does not result in unwarranted forest degradation.
3. Information which helps to document the economic, social and environmental tradeoffs forest development entails.

Our focus is on collecting and disseminating spatial (map-based) datasets, as these can:

- Be manipulated and integrated with other data, to provide for a wide range of analysis.
- Generate results which can be reported on both by administrative and management unit (eg. At the state/province level, by watershed, by forest type etc).

Initially, GFW data collection activities were focussed on collecting and integrating existing datasets and making these widely available. Increasingly, we are generating primary data, in particular those which can be derived from medium and high resolution satellite imagery.

GFW's mandate is limited to providing independent, peer-reviewed data to public, private sector and government audiences at no cost. GFW partners are precluded from conducting advocacy work under the GFW Charter, and are bound by strict protocols, which require that monitoring methods and results undergo rigorous review by technical experts and scientists familiar with forests in the countries where we operate. Review comments are published as a compendium to our assessment products, and posted on the GFW website (www.globalforestwatch.org).

Progress to date: We have released initial State of the Forest assessments for three countries (Canada, Cameroon and Gabon), and have completed assessments for Chile, Indonesia, and Venezuela, which are slated for release in coming months. These reports provide a compilation of spatial and other data useful for assessing the state and management of forests at national levels. GFW partners in Central Africa and Canada are now producing updates----moving from one-time assessments to periodic monitoring. In addition, we have launched two major projects to map forest condition and monitor forest management compliance (see below). Forest Watch Russia released results of an assessment of remaining intact forests west of the Urals in October 2001. Maps covering the entire country are slated for publication in December of this year. Similar mapping work is underway in several regions.

¹ Temperate and boreal: Chile, Russia, Canada, USA. Tropical: Cameroon, Central African Republic, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, Indonesia, and Venezuela.

Relevance of Global Forest Watch monitoring to UNFF:

Several areas of our monitoring work relate to IPF and IFF decision items. These include:

1. *Monitoring of underlying drivers of forest change:* GFW is mapping:
 - (i) Access infrastructure: roads, navigable waterways, and other access routes are often associated with agricultural conversion, hunting, logging and other activities which result in forest change. Initial GFW work entails collecting and integrating existing information, and updating digital data with information derived from various atlases, topo maps etc. In several countries we are also using satellite imagery to update existing datasets (for example, digitizing logging roads which rarely appear on published maps).
 - (ii) Extractive operations: GFW is developing spatial databases of logging and mining concessions for key regions of the world, including information on the location of these concessions, status, ownership and other ancillary data useful for assessing the environmental impacts and economic returns of these operations, on forests.
2. *Assessing values associated with forests:* Most work to date is focussed on mapping forests which have undergone relatively little commercial scale disturbance (intact natural forests). By their very nature, intact forests offer the greatest quantity of environmental goods and services relative to potential, precluding management interventions (eg. carbon storage, biodiversity habitat, standing timber). Surprisingly, forest condition is not monitored systematically at regional and global levels, despite widespread concern over the degradation and loss of primary forests worldwide, and given that in boreal regions (ie. half of the world's forest) major changes relate to condition, rather than conversion. We seek to fill this information gap.

First results have been published for European Russia, with draft mapping completed or underway for Central Russia, Siberia, Chile, Indonesia, Canada and Alaska. We have extended forest condition mapping to identifying other elements of high conservation value forest (HCVF) within non-intact areas. For now, this work is focussed on the Eastern US.

In addition, GFW State of the Forest reports include information on economic, biological and other values associated with forests, derived from existing datasets. In some countries we have invested heavily in collecting information on indigenous groups living within forests, as these are useful for assessing cultural values and for indicating potential social conflicts, given ongoing forest development. For example,

our forthcoming GFW Venezuela report includes maps of indigenous populations living within forests of the Guyana region, and show where these settlements overlap with logging and mining concessions.

3. *Assessing compliance with forest management laws and regulations:* Over the past decade, governments around the world have begun putting the legislative framework in place needed to promote sustainable forest management. However, progress on implementation has been slow (illegal logging, for example, accounts for a significant share of total forest production in many countries). GFW's compliance monitoring work has focussed on assessing the degree to which logging operations comply with national forest laws and policies (we will be extending this work to the mining sector, next year). This entails two types of data collection activity:

- (i) Review and cross-checking of government records: This is quite useful for identifying some of most basic compliance problems (eg. concessions operating with expired licenses, granted concessions within protected areas, operating without required management plans etc).
- (ii) Remote sensing analysis to detect certain types of illegal logging: GFW is now combining spatial information on logging concessions with data derived from high-resolution satellite imagery, to detect logging roads in areas closed to harvest. Based on initial pilot results for Cameroon, this appears to be a low cost approach for systematically monitoring some types of illegal logging, eg. that occurring outside of concession boundaries and (when combined with information from management plans) outside of allocated cut areas within concessions.

Although these data are collected at the management unit level (ie. by concession), we are integrating this information spatially, so as to be able to report compliance progress at the country level.

4. *Promoting responsible markets for wood products:* Certification systems offer a mechanism for promoting markets for sustainably produced wood. However, they do not create market disincentives for clearly unsustainable supplies. In recent years, a host of European and North American companies have announced new purchasing policies which commit them to one or more of the following:

- increased use of certified wood
- phasing out supplies harvested in violation of environmental management regulations
- phasing out supplies from certain forests of high conservation value.

For example, IKEA, the world's largest furniture manufacturer, is phasing out non-FSC certified supplies from intact forests and they have pledged to avoid illegally harvested wood products.

ABN Amro, a major European bank, recently released a forest policy to assure they are not financing clearly unsustainable forestry development. Along with commitments by major wood products retailers, these policies amount to voluntary industry standards which---if widely adopted---could significantly influence how forests are managed around the world, through market and investment leverage. However, the real challenge lies in implementation, as this will require a host of new monitoring and assessment tools. With support from IKEA, GFW is developing maps and databases these companies can use, to identify where logging is occurring within certain types of high conservation value forest, and where operations are clearly illegal.

5. *Building capacity for monitoring and reporting on forests:* Global Forest Watch seeks to strengthen local NGO capacity to monitor, analyze and report on forest development trends. This includes training in GIS, remote sensing imagery and field validation work, and helping local NGOs and other groups analyze and communicate results effectively, to reach their target audiences. Thanks to in-kind donations from ESRI and ERDAS, leading producers of GIS and remote sensing interpretation software respectively, we have also been able to provide training and software to local NGOs in several countries.
6. *Making forest-related information widely available and accessible to key stakeholder groups:* In addition to producing hard-copy products, Global Forest Watch data are distributed freely via our website, which includes internet mapping software so that users can create customized maps for their own use, query our spatial databases, and download underlying GIS coverages for their own use.

NGO's play an increasingly important role as data providers, and as such can help further UNFF and related forest monitoring, assessment and reporting work. Global Forest Watch data can be used both in helping assess progress in implementing specific proposals for action (see above) and in assessing progress towards sustainable management of forests---the latter through reporting of conditions and trends data and assessing compliance by extractive industries.