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Strategic Plan - *Sharing Forest Information around the World*

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PREFACE

The Global Forest Information Service (GFIS) has achieved rapid progress since its inception at the International Consultation on Research and Information Systems (ICRIS) in Forestry held during September 1998 in Austria. Many institutions and individuals have supported this worldwide endeavor to establish a user-friendly Internet gateway for all types of forest-related information. Rapid developments in information technologies and emerging new information services in the field of natural resources required extensive debate on the part of the GFIS developers and, along the way, led to several changes in the GFIS concept. Also, the issue of institutional arrangements for managing and further developing GFIS required time to evolve. Eventually GFIS found its home under the umbrella of the Collaborative Partnership on Forests (CPF).

This document provides conceptual information regarding GFIS operations and development. This Strategic Plan is based on extensive consultations and participatory decision-making among all partners involved in GFIS, particularly the members of the GFIS Steering Committee. The Strategic Plan is intended for use by the entire global forestry community; both information providers and information users.

Over the past several years, many institutions and individuals have provided substantial input to the establishment and growth of GFIS. From the very start of GFIS development, support in terms of expertise, staff time, and information resources were provided by the Food and Agriculture Organization of the United Nations (FAO), CAB International, the Center for International Forestry Research (CIFOR) and the National Biological Information Infrastructure (NBII). These organizations and the International Union of Forest Research Organizations (IUFRO) Secretariat have shaped the GFIS strategy outlined in this document. Their contribution is greatly appreciated.

Peter Mayer
Executive Director IUFRO
Chairman of the GFIS Steering Committee

EXECUTIVE SUMMARY

The Global Forest Information Service (GFIS) provides direct open access to information from the global forest community. The 2009-2013 GFIS Strategic Plan provides the framework for implementation of the GFIS mission to disseminate and share information and data related to forest science and management. GFIS accomplishes this by developing and promoting common information exchange standards, information infrastructure development protocols, and capacity building, as well as forging partnerships among forest information providers and users.

GFIS aims to build a global partnership of information sharing networks across forest-related sectors and institutions. The GFIS Internet gateway allows the forest communities of practice, institutions, and individuals to share forest-related information and data through a dedicated web portal at <http://www.gfis.net/>.

As a distributed network of networks, GFIS aims to be the forest community of practice's umbrella network involved in the dissemination and sharing of information and data, standards, technological solutions to information sharing, and information infrastructure development. GFIS accomplishes this by defining elements that are intended to assist contributors in increasing access to their materials. The current GFIS information types - News, Events, Recent Publications, and Job Vacancies - are based on RSS2.0 specifications; the Library and document collections are based on the AGRIS/GFIS Application Profile; and Datasets and Databases are based on the USGS/FGDC biological data profile.

Successful integration of new partners depends on a stable service and includes a workable technological platform as well as clear guidelines on metadata standards and procedures for the creation, submission and update of metadata. Major actions include supporting national/regional initiatives for mobilization of new partners, ensuring adequate support services for partners (particularly in developing countries), and coordinating training in close cooperation with GFIS partners.

GFIS is dependent on those who contribute information to the system. The GFIS network operates through a variety of partnership types. GFIS Partners are organizations who provide pivotal contributions for the maintenance and development of GFIS while National/Regional Support Organizations, with expertise in information management and dissemination, help new information providers to use GFIS and streamline their metadata through GFIS. In addition, a network of Information Providers, a key component of the network, provides content by sharing information and data they have collected through GFIS.

Further enhancement of GFIS follows an iterative and incremental approach whereby partners contribute to system and partnership enhancements, as well as capacity building efforts to strengthen developing countries' participation in GFIS.

Building the capacity of GFIS information providers is one of the key strategies in promoting and expanding the system. Depending on the target audience, training courses will offer general information on GFIS and its use in information resource

discovery and access, as well as more in-depth training courses for information providers.

Outreach activities for GFIS include promotion of the service through IUFRO members in the Enlarged Board and the International Council, dissemination of information on GFIS by GFIS partners, as well as through a broad educational approach aimed at improving exchange of information and data among forest related organizations, such as the members of the CPF. Over time, expanding the service will put particular emphasis on additional languages and extended vocabularies and classifications for improved search operations.

The 2009-2013 Strategic Plan provides the background for GFIS, outlines the progress of GFIS and the steps the organization needs to take to be a viable and sustainable institution for the forest community of practice.

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I. INTRODUCTION

The Global Forest Information Service (GFIS) is an Internet gateway that allows sharing of forest-related information. As a global, multi-stakeholder approach to GFIS development and implementation, this strategic plan is built on the principles of partnership, shared responsibility, and pooled resources, and serves as a baseline for consolidating, operating, further enhancing, and expanding GFIS. All information made available through GFIS is supplied by partner institutions from around the world. These resources are online and provide direct access to the original information. Its website is located at <http://www.gfis.net/>.

The 2009-2013 Strategic Plan

This document provides a Global Forest Information Service (GFIS) strategic plan for the period from 2009 to 2013. Following a brief history of GFIS, an assessment of the current global market for organized forest-related information is presented. Major benefits to GFIS stakeholders are highlighted. In this section key elements of the strategy are explained and include mission, vision and objectives; the basic GFIS conceptual framework; governance and management; target audience; standards, products and services; and the technological solutions applied in GFIS. A summary of benefits provides a complete picture of the advantages of using the GFIS approach. This is followed by a description of the strategies needed to further develop and market the GFIS concept. Also, challenges related to expanding the GFIS service, capacity building, and promotion of GFIS at the global scale are outlined.

GFIS – A Brief History

In 1998, the ICRIS¹ held in Gmunden, Austria, recommended that IFF² should “endorse and promote the development of a Global Forest Information Service to enhance access to all forest-related information, ensuring that it is accessible to all stakeholders including policy-makers, forest managers, non-governmental organizations, community groups and the public at large.” In implementing this request, IUFRO³ initiated various activities to establish GFIS. These efforts included the formation of a GFIS Task Force, the establishment of a GFIS project at IUFRO Headquarters, and the implementation of the GFIS Africa project through IUFRO-SPDC⁴.

The first pilot version of GFIS was presented in August 2002 at the IUFRO European Conference in Copenhagen (Denmark). The GFIS prototype was subsequently developed and successfully demonstrated in September 2003 at the XII World Forestry Congress in Quebec, Canada, and included information from about 60 expert forestry institutions from all regions of the world.

¹ International Consultation on Research and Information Systems in Forestry

² Intergovernmental Forum on Forests

³ International Union of Forest Research Organizations

⁴ IUFRO’s Special Programme for Developing Countries

In May 2004, the CPF⁵ agreed that GFIS should become a joint CPF Initiative. The decision to become an initiative of CPF marked the beginning of the second phase of GFIS development; i.e., a new era in terms of partnership and shared responsibilities to ensure that GFIS can successfully be operated over the years to come.

Today GFIS is led by IUFRO, together with FAO⁶, CIFOR⁷, IGRAF⁸ and the UNFF⁹ Secretariat. The GFIS search service was first launched at the XXII IUFRO World Congress in Brisbane, Australia. An upgraded version of the gateway was released in January 2007 that provided an improved search tool and view facilities for news, events, publications and job opportunities. The technical development and maintenance of the current GFIS gateway is being carried out by Metla¹⁰.

The development of GFIS has passed through several challenges, partly due to the evolving nature of the technologies and tools for managing metadata-based information services and partly due to the time it takes to build sustainable partnerships.

II. CHALLENGES TO A GLOBAL SERVICE FOR ORGANIZED FOREST-RELATED INFORMATION

The Challenges to organize and disseminate electronic information output

The volume of globally generated information is enormous and continuously growing, as are the sources of this information. It is estimated that to date there are almost 300 million web sites offering information on virtually all aspects of life.

As experience has shown it is difficult to locate a significant proportion of the available online information. One of the major problems forest information seekers face is the fact that search operations cannot be performed in a domain-specific manner. Therefore, users turn to general search engines that, more often than not, result in lists of several thousands of references which are largely irrelevant and time consuming to screen.

Because of the problems with the electronic forest-related information resources, a search chaos exists and search services have failed to reach their diverse clients. In addition, poorly organized information, lack of an accurate search engine, loss of time and a lack of comparable information are major problems in the forestry realm. Also if the available information doesn't cover all geographic regions, the analysis and outcome might be inaccurate and so will the resulting policy and management decisions using this data.

⁵ Collaborative Partnership on Forests

⁶ Food and Agriculture Organization of the United Nations

⁷ Center for International Forestry Research

⁸ World Agroforestry Center

⁹ United Nations Forum on Forests

¹⁰ The Finnish Forest Research Institute

Benefits of GFIS to stakeholders

Organized and efficient systems for the discovery and access to forest-related information have many benefits for both information providers and users. GFIS is a global platform for information sharing that brings together institutions and individuals who want to disseminate forest-related data and information with those seeking to access these resources. In an increasingly interconnected world, GFIS plays an important role in organizing and providing information to all types of stakeholders and thus contributes to the development of a global knowledge base to aid in decision making.

GFIS partners, regional support organizations, and information providers benefit from the relationship with GFIS in many ways. The system provides greater regional and global recognition, increases the potential for collaborative work and funding opportunities, and improves the understanding of information management practices.

Important benefits specific to GFIS users include access to a diverse array of timely, credible data and information resources that are relevant to policy formulations. The private sector will be provided with quality information and educators will retrieve relevant and stimulating training resources.

Information providers participating in GFIS will also obtain considerable benefits, which include: better visibility and recognition of information products, higher numbers of potential product users, and connections to other information providers and partners around the world. Organizing information will also help to improve internal information management and build related capacity.

III. THE GFIS APPROACH

GFIS, through enhanced exchange and dissemination of all types of forest related information, contributes to an improved understanding of these issues and enhances the decision-making process to support the global conservation and sustainable management of all types of forest and tree resources.

Mission Statement

Based on its vision, GFIS works towards achieving the following Mission:

GFIS provides the framework to make forest related data and information available through a single online source, and promotes the dissemination and sharing of forest- and tree-related information and knowledge among the global forest community through developing common information exchange standards, capacity building, and enhancing partnerships among forestry institutions and information users.

In a global policy context, the above mission statement is fully in line with the resolutions of the UNFF¹¹ and the priorities of the CPF. The UNFF6 resolution explicitly mentions the support by the UNFF for the continuation and development of GFIS as a means to promote the exchange of forest management-related experiences and good practices.

Objectives

In order to achieve its mission, GFIS pursues the following objectives:

- To develop common standards for sharing forest-related information resources;
- To maintain a system of web-based tools for information exchange;
- To enable participation in GFIS of both information providers and users; and
- To promote networking and partnerships for sharing forest-related information.

In short, the role of GFIS is to add sufficient value to currently available information so that it becomes the global gateway of choice for partners providing and using information.

Expected Results

GFIS will bring together key forestry players to share their electronic information resources through a single gateway. By addressing a variety of information requirements GFIS guides its users to information relevant to their needs.

Within a period of five years (2009-2013), GFIS aims to achieve the following results:

- All GFIS partners use common data exchange formats for information types;
- All CPF members and half of all IUFRO members participate in GFIS;
- Half of all GFIS partners come from developing countries;
- Comprehensive web search service of GFIS partners is available; and
- A vibrant communicating online community exists.

IV. GFIS IMPLEMENTATION

GFIS offers an information exchange and dissemination tool for partners to share their information resources through the gateway. GFIS provides an open exchange standard for information resources which helps partners organize their information, generate their inputs, and allows them to manage their contributions.

Participating in GFIS is voluntary, but it implies a certain commitment in terms of data provision and support and promotion of the service, particularly to developing countries. Continuous system development and maintenance will ensure that GFIS takes advantage of new innovations in web services.

¹¹ United Nations Forum on Forests

Steering Committee

A Steering Committee provides strategic guidance to GFIS. Its responsibilities include the formulation of policy and strategic directives; review and approval of work plans and budgets; formulation of fund raising objectives and assistance in mobilizing financial resources; monitoring of progress; communication with CPF members; and building of political support among donors and key partners.

Coordination Unit

At the operational level, the GFIS Coordination Unit is responsible for developing, implementing and maintaining GFIS. Its major tasks include the development of work plans and budgets; development of technical solutions for metadata standards, exchange protocols, thesauri etc.; mobilizing appropriate personnel for implementation of tasks; identification of and engagement with potential GFIS partners; monitoring of progress of work; and reporting to the Steering Committee. Many of these operational tasks are prepared and implemented in close cooperation with partners.

Partnership Development

In pursuit of its mission, GFIS is not competing with other existing national and international information networks. GFIS looks to these networks for closer cooperation so that tools, standards and data can be exchanged for the benefits of all parties.

The fundamental principle guiding the development of GFIS is that its partners share a common set of needs that can be addressed most effectively through collaboration. Towards this end, GFIS seeks to develop a system of partnerships with a variety of organizations and levels of participation that form the GFIS community. Member organizations of the community are grouped according to the roles they play:

GFIS Partners

GFIS Partner organizations provide pivotal contributions for the maintenance and further development of GFIS. These organizations belong to the core group of organizations within the GFIS community that steers, manages and operates the system. Partners generally have a major interest in forestry information dissemination and sharing, and seek to invest in a coordinated approach so that the forestry community receives relevant and timely information and data for decision-making through the collaborative effort. Each Partner is responsible for identifying their goals for participation in GFIS, including an explanation of how GFIS fits within their business plan or initiative, and how they can contribute to the GFIS goals.

National/Regional Support Organizations

Within GFIS National/Regional Support Organizations are institutions with expertise in information management and dissemination that help new Information Providers using the tools to streamline their metadata through the GFIS gateway. In addition to generating and organizing their own forest-related metadata for uploading to GFIS, these partners also assist other information providers in their country or region in mobilizing information resources. This role is particularly important in developing regions where many of the potential GFIS Information Providers do not have the

capacity and infrastructure to create quality metadata and upload them directly to GFIS. While being Information Providers themselves, these organizations provide additional contributions to GFIS in terms of personnel, expertise and/or financial resources.

Information Providers

GFIS information providers are organizations that collect and maintain forest-related information and make it available to GFIS using common exchange standards so that distributed networks and individual data providers are able to build crosswalks for information sharing. As partners, GFIS depends upon its information providers to supply, update, and upload metadata records onto the system on a regular basis

For a current list of GFIS Partners, Support Organizations and Information Providers see: <http://www.gfis.net/gfis/partners.faces>.

Capacity Building

Training is considered a key strategy in promoting GFIS among information providers and users. Depending on the target audience, training courses will offer general information about GFIS and its use in information resource discovery and access as well as more in-depth training courses for Information Providers. These courses will focus on the GFIS information exchange standards and dissemination of forest information resources. In this context, it is important that each information provider maintains its own staff trained in GFIS approaches and methods. In this way, Information Providers are able to organize their information resources and create and submit metadata.

Training-related activities will include:

- Developing a GFIS annual training plan;
- Compilation of training material for a course on "Use of information and communication technology tools in dissemination of forest information";
- Seeking financial resources for training of potential information providers from developing countries (in close cooperation with IUFRO-SPDC and others);
- Implementing regular training courses for Information Providers and users, (e.g. in conjunction with forest-related meetings of IUFRO and other international expert institutions).

GFIS User Community

GFIS users are individuals or institutions that seek forest-related information using the gateway from around the world. In principle, everyone seeking forest-related information is a potential GFIS user.

V. MONITORING AND EVALUATION

The GFIS Coordination Unit follows usage of the gateway monthly and reports to the GFIS Steering Committee regularly. The usage statistics show duration of visits and last visits, authenticated users, and last authenticated visits, days of week and rush hours, domains/countries of host visitors, etc.

Statistics and User Needs Assessment

A GFIS user needs assessment is carried out regularly. The user needs assessment identifies current and potential GFIS Information Providers and users; determines those customers' information needs, sources, and behaviors; and assesses their view of GFIS's existing and potential services.

Monitor and Evaluate the Process Regularly

The primary goal of the follow-up of the usage statistics, the implementation of user needs assessment, and the evaluation of GFIS is to maximize the usability of the GFIS partnership and gateway for the forest community. The GFIS Steering Committee should pursue a formative evaluation based on both expert, partnership and user evaluation at an early stage in the life cycle of the gateway and proceeding regular intervals throughout the life of GFIS.

GFIS CONTRIBUTORS 2005-2009

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Korea Forest Research Institute (KFRI)



US Forest Service (USFS)



Federal Office for the Environment (FOEN)

In-kind contributors



CABI



Center for International Forestry Research (CIFOR)



Finnish Forest Research Institute (METLA)



Food and Agriculture Organization of the United Nations (FAO)



International Union of Forest Research Organizations (IUFRO)



The Biological Informatics Office of the United States Geological Survey (USGS/BIO)



United Nations Forum on Forests (UNFF) Secretariat