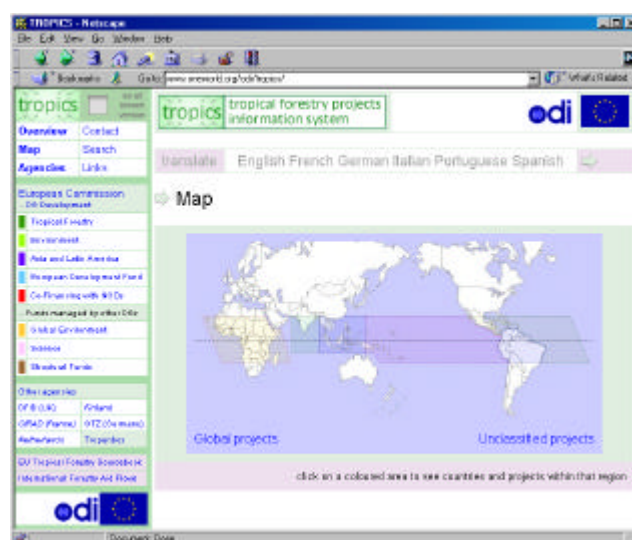


TROPICS

Tropical Forestry Projects Information System



Final Report
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The fifth component of
A Programme of EU Tropical Forestry
Information Consolidation,
Networking and
Dissemination
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1. Summary

This report summarises the findings of the database component of 'A Programme of EU Tropical Forestry Information Consolidation, Networking and Dissemination' (1997-9).

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The output of this component is the internet-based TROPICS¹ system, an information resource of European Union tropical forestry aid activities.

The success of the innovative approach taken by TROPICS can be seen in three ways:

- Rapid growth and strong agency participation:
The system includes information on **672 European Commission activities**, and **932 activities from five European Union Member States**;²
- High usage levels:
TROPICS has already generated an impressive level of interest on the internet, with an average of **750 page accesses per day** in December 1999. This will grow substantially with more active promotion of the site;
- Recognition of the future importance of TROPICS:
At the November 1999 meeting of European Tropical Forestry Advisors, TROPICS was strongly endorsed as **one of the main tools to ensure permanent European coordination at national, regional and international levels.**

The approach developed ensures low long-term maintenance costs, as the system can be updated using information that has already been prepared for other purposes. These costs therefore diminish as agencies improve their own internal project management systems over time, and also make more use of the internet to disseminate information.

There is clearly a future role for TROPICS to continue linking together such information resources in a simple and effective way, enabling policy and project staff to quickly find information that they need, reaching effortlessly across agencies, regions and languages.

In addition to addressing these information needs, TROPICS should also continue to provide a valuable tool for recipient government agencies and civil society organisations with an interest in tropical forestry, improving general awareness of issues and activities in the sector.

¹ 'Tropical Forestry Projects Information System'.

² CIRAD-Forêt (France), DFID (UK), DIDC (Finland), GTZ (Germany) and Tropenbos/MFA (the Netherlands).

2. Background

Two-thirds of all bilateral aid to tropical forestry is provided by the European Union and its Member States. Increasingly, there has been a move from free-standing bilateral programmes towards a more complementary, coordinated and coherent approach within the sector. Recent developments in international policy are encouraging this trend; national forest programmes (nfps), for example, which have been endorsed by the international community through the IPF/IFF processes, will likewise require greater coordination of donor investments and activities.

An essential requirement, if these changes are to improve the quality of aid performance in the sector, is enhanced capacity for the sharing and exchange of information. To date, however, there has been no simple mechanism to allow this to occur. This has implications not only for the donors themselves but also for recipient governments. The latter often face a large number of potential donors with different requirements and frequently changing procedures, and are hampered by staff and resource shortages. Considerable scope exists to improve learning processes in the sector

This project was originally intended to provide a database resource of European Commission activities in the tropical forestry sector. However, concerns raised about information needs, scope, coverage and maintenance led to a reassessment of the project activities.

In particular, it was felt that a traditional rigid database approach was unlikely to be sustainable, since this would not recognise the important human and financial resource constraints facing donor agencies. The wider need for information sharing between other tropical forestry agencies also needed to be taken into account.

As a result, a more flexible approach was developed, making use of new technology to collect and disseminate information. TROPICS has been designed to impose minimal demands as regards set-up and maintenance costs. Existing information sources are used wherever possible. This strategy has proven very effective, and should ensure future low-cost sustainability of information flows through the development of automatic links to agencies own internal information systems.

In addition, TROPICS was expanded to address the need for a wider system of information sharing, involving European Member States and other donors. The success of this approach can be seen in the enthusiasm of Member States to participate in the system, which now contains more information about Member State activities than for those of the European Commission. The need for the system was strongly endorsed at the meeting of the European Tropical Forestry Advisers Group in Brussels (November 1999).

3. The TROPICS strategy

TROPICS has developed innovative strategies to avoid the problems that traditional database approaches suffer from - problems with data gathering and data use. These strategies involve:

- making use of existing information stores and processes wherever possible, recognising the resource constraints that exist within agencies;
- not insisting on standardised formats, which inhibit agency participation and have limited value;
- making information gathered widely accessible, using the internet and a carefully tested user-interface.

3.1 Traditional database strategies, and their failings

The standard model involves agents being asked to complete specially designed sets of forms, which are then input into a centrally-held database system. This strategy is extremely resource intensive, and often faces problems of poor quality and incomplete data. People with access to the relevant data have little direct benefit from completing such forms (since they have access to the information already). They also generally do not have free resources to carry out such additional work.³

In addition, the central data-gathering authority finds itself with the resource-intensive task of entering these forms, which are often inconsistently completed (if they are completed at all). The requirement of consistency is often taken beyond the point where benefits of additional consistency are outweighed by the costs of standardising the data, especially where the data is provided by third parties, introducing costs and time-delays to any process of data checking and correction.

The traditional approach is to have a standardised central database. This has however often restricted access to potential users, either through deliberate security restrictions, or through limited availability of database-capable terminals, or unfriendly and difficult-to-use user interfaces.

The final problem with this approach is that, with poor quality data, few people will use the system, which in turn leads to poor incentives to provide information into the system - a vicious circle comes into play. The situation is worse if there is only a small potential user-base (if access to the information is restricted in any of the ways detailed above), since potential benefits of any information in the system are reduced, as indeed are external

³ This lack of free resources (staff time in particular) is not an unusual constraint. Indeed, demands for a database to improve data-sharing often stem directly from such resource constraints, since they typically result in poor information sharing and communication with external agents. However, unless additional resources are suddenly available, the standard 'solution' of requiring additional paperwork to be completed is clearly unlikely to be a practical solution.

pressures to improve that information.⁴

3.2 Solutions

TROPICS has sought to learn from past experience, by recognising the importance of resource constraints to data-gathering, and the importance of wide and easy access to any information collected. TROPICS does this by:

3.2.i Re-use of existing information

Rather than requiring agencies to complete a special set of forms detailing their activities, the TROPICS strategy recognises that agency staff face resource constraints that usually make frequent completion of such forms impractical.

The strategy also recognises that agency staff *will already have* information about project activities in some form, since they are involved in the management of such activities. Wherever possible, TROPICS therefore re-uses such available (and non-sensitive) information. By using such a flexible approach, the resource costs to agency staff is limited to identifying likely sources of information. Since much of that information is now stored electronically, collecting and re-working it for use in TROPICS can be fast and relatively automatic, involving little time for agency and TROPICS staff alike.

TROPICS has powerful methods for making use of a number of different media, ranging from agency internal management systems, publications, project-cycle management documents (contracts, TORS, reports, and other word-processed documents), and information from web-sites.

Increasingly TROPICS gathers information from internal management systems. Project staff therefore know that when they update their own systems they also indirectly update the information held within TROPICS.

⁴ The traditional database method as outlined here was used by FAO in the 1980's TFAPris system, an earlier attempt to improve forestry activity coordination. While a lot of time and resources went into this system, the benefits were limited, partly because of very limited agency participation, problems with data quality, and very limited wider access to any information in the TFAPris system. The system eventually ceased to operate as a result. External factors which make the same task more practical for the TROPICS system to achieve include greater public and political pressure for transparency and improved coordination, and the wider availability of computer technology.

3.2.ii Flexible information gathering

The re-use of existing data clearly requires a large degree of flexibility, and a high degree of data standardisation becomes impractical. In practice however, standardisation is of relatively little direct value, since forestry activities usually take many different forms, and are therefore often difficult to directly compare in any way.

On the other hand, the benefits of a flexible approach are direct and tangible - participation costs for agencies are dramatically reduced in a sustainable way, and overall resource requirements for maintenance are minimised. The creation of parallel and unnecessary information creation structures are also avoided, simplifying information flows. The practical trade-off between standardisation and flexibility adopted by TROPICS is therefore a valuable one.

3.2.iii Wide access

The information held within TROPICS can be useful to a number of different audiences, but only if they can have easy access to it. While this may seem obvious now, database projects have traditionally required special software and access connections to make use of the data they gather, which act as barriers to access.

TROPICS has therefore adapted to use the internet as its main mode of access. This makes it easily accessible to a large audience of relevant policy and agency staff, as well as a growing number of project staff. The system is also very fast, cheap and easy to update for all users worldwide - an important advantage over printed materials, in areas where information requires regular updating (such as project portfolios).

3.2.iv User-friendly presentation

Another key feature that is crucial to the success of any information system is ease of use. The development of the TROPICS user-interface is an ongoing and iterative process, checking with end-users that information is presented in the clearest possible way. Where possible, graphics and colours are used to help represent complex information (such as graphs to present financial data, colour keys to help present complex funding arrangements, flags to represent agencies etc.). Through a combination of these techniques, TROPICS remains simple and easy to use, despite the large amount of complex, inter-connected information it contains.

3.3 Addressing information needs

TROPICS successfully addresses many of the key information flow problems faced by tropical forestry advisers. It allows wider and easier access to information on tropical forestry activities in the following ways:

3.3.i Addressing inter-agency barriers to communication

By presenting all projects in an integrated way, TROPICS overcomes barriers to information flows between agencies. Activities in a certain region, or on a particular theme, are presented together even where funded through different agencies. TROPICS also helps to address intra-agency communication problems that can arise as a result of moves to decentralise activities within organisations (to delegations and geographical desks, for instance).

3.3.ii Improving access to information on a large numbers of activities

While TROPICS can handle many thousands of projects, it remains easy to locate relevant activities as required. Since the system is also indexed by search engines on the world wide web, information it contains is also automatically made available to people searching the internet for information on relevant topics.

3.3.iii Providing simple overviews of complex forestry funding arrangements

Mirroring the complex multi-faceted nature of forestry as a sector, there is a bewildering array of different patterns of organisation of tropical forestry aid between the European Commission and EU Member State agencies. This acts as a barrier to effective information sharing, and can be a source of confusion for projects, donor and recipient governments alike. TROPICS provides a simple guide through these arrangements, providing key information and contact details that can be updated as circumstances change, and linkages to agency websites as relevant.

3.3.iv Strengthening institutional memory

Staff turnover on both donor and recipient agency sides seriously limit the institutional memory of past activities and lessons learnt. This is particularly problematic in the forestry sector, which typically operates over relatively long time-horizons. TROPICS will act as a permanent common repository of past activities, that can be drawn on by all agencies and interested parties.

3.3.v Crossing the barriers of language

TROPICS uses online translation technology to provide an instant usable translation of any data it contains, between any of the following languages:

English, French, German, Italian, Portuguese, Spanish

4. Current information sources

TROPICS can make use of a variety of existing information sources, as this section illustrates. Agencies already have internal information flows which can meet some of the information needs of the TROPICS system.

The initial step towards agency participation therefore involves examining these flows for a convenient point at which information can be extracted, which may therefore vary from agency to agency. Ideally, and increasingly, agencies have central management information systems which contain all the information required in a standardised format. In other cases, the information may be available across a patchwork of different systems.

4.1 European Commission

Within the Commission, there are a wide range of financial instruments which may fund forest-sector activities, spread across a number of different Directorate-Generals. With the 1999 RELEX reorganisations, some of these structures were reorganised, and relevant sections of DGVIII and DGIB were combined to form a new service, DG Development.

The only relevant system that works across Directorate-Generals is a financial system (SINCOM), and this does not contain enough information about project activities to be of use to TROPICS. For that reason, TROPICS had to develop mechanisms for obtaining information from a number of different sources in the various DGs. The selection of tropical forestry-related projects was based initially on inventories compiled by consultants Planistat and ECO.

4.1.i DG Development (formerly DGVIII and DGIB)

The majority of European Commission aid to tropical forests is channelled through DG Development, via a number of budget lines and the EDF.

When DGVIII and DGIB were separate, TROPICS developed linkages with their internal management information systems ('GELIBU' and 'MIS' respectively) to obtain data on an ongoing basis. Due to the incomplete nature of some data on these systems, it was necessary to supplement this information with other sources, such as project fiches and reports to the European Parliament.

With the creation of DG Development, a new information system (called 'CRIS') is in preparation, and due to be ready before the end of 2000. This will have numerous improvements over the old systems, including more space for recording descriptive information about projects, and an improved user interface. When this is ready, it will be possible to establish links between CRIS and TROPICS, to ensure a regular flow of relevant information.

4.1.ii DG Environment (formerly DGXI)

There is no central electronic repository of information on projects in DG Environment which TROPICS can access, although this is likely to change in the near future. In any case, relatively small numbers of projects from this DG have tropical forestry aspects, so information on these is not difficult to maintain.

4.1.iii DG Research (formerly DGXII)

A number of relevant research projects are funded through this DG every year, and information on them is published in yearly reviews of activities. Information from an electronic copy of this publication is used to update the information in TROPICS.

4.1.iv JRC-TREES

The GIS system designed and maintained by JRC-TREES contains satellite image information about forest cover, and other data. TROPICS has been designed to make linkages between the two systems at country and region level over the internet possible, so that data from both can be shared by end-users. Development of such linkages was begun in 1999.

4.2 Finland - DIDC

Information about Finnish tropical forestry activities is currently in preparation for the global.finland.fi website. When this information is ready (due Spring 2000), it will be simple to incorporate it within the TROPICS system. Information on Finnish projects already held within TROPICS was provided by DIDC (then FINNIDA) in spreadsheet format.

4.3 France - CIRAD-Forêt

CIRAD-Forêt are developing an internal management system (called 'Atlantis') which will contain all the information about projects TROPICS will need. Until this is ready, information on CIRAD-Forêt activities in TROPICS is being provided in the form of word-processed project fiche prepared for internal purposes.

4.4 Germany - GTZ

Information on GTZ projects held within TROPICS was originally prepared for an ETFAG meeting, in spreadsheet format.

4.5 Netherlands - MFA, Tropenbos

The Netherlands are preparing an online project database on forestry activities ('PROFORIS' - due by Spring 2000). When this is available, it will be straightforward to incorporate the information it contains into TROPICS. The information on Dutch forestry activities already held within TROPICS comes from an inventory of research activities carried out by Tropenbos for the Ministry of Foreign Affairs.

4.6 UK - DFID

DFID have a management information system (called 'NARSIS') for all natural resources activities. TROPICS has used information extracted directly from NARSIS, but now makes use of the DFID annual printed portfolio of current forestry activities, which in turn is based on information from the NARSIS system. The advantage of this more indirect mechanism is that information in the portfolio will be selected and updated by DFID staff during the preparation process.

5. Recommendations for future development

TROPICS can be developed in a number of ways. Ongoing maintenance of the information it contains does not require a lot of resources, either for participating agencies or TROPICS staff, because of the strategy of re-using existing information. There are however a number of extensions to the system that should now be made, to increase its usefulness and value.

5.1 Increasing number of participating agencies

TROPICS adds value by bringing together information from different sources, to make it more readily available. One of the main ways it can improve information flows is by acting as a mechanism for information sharing for even more agencies, both within and outside the European Union. This is clearly the key area for future development.

5.2 Publicising TROPICS as a resource

Because of earlier uncertainties about the location and future role of TROPICS, the system has not been widely publicised. This should now be done, ideally with a shorter and more memorable internet address, such as www.tropics.org. Once this is obtained, links should also be made from other relevant sites.

5.3 Extending information contained in TROPICS

One particular area which can be improved in the next phase of work is improving the availability of up-to-date contact details (mainly e-mail) for projects. This can be done with the active participation of project staff over the internet itself, once the system has been more widely publicised. In addition, greater coverage of project reports and evaluations would be valuable.

5.4 Extensions to assist the nfp process

TROPICS contains many sources of information at country and region level, and it should be possible to make extensions to help assist the national forestry plan process. It would be possible to make linkages between national forestry programmes, and the individual projects that fulfil aspects of those programmes. This would, for instance, make it easier to identify and prioritise areas which require additional assistance.

5.5 Improvement of the searching facilities

There are a number of limitations to the current web server on which TROPICS currently resides. The search engine in particular is erratic, and can be slow. The system needs to be moved to a better location, with faster access and better facilities. Ideally, a UNIX host with full telnet access should be used, since this will make updating the TROPICS system faster and simpler, using compressed archives of project files.

6. Contact Details

6.1 ODI

The main contact point for TROPICS is: tropics@odi.org.uk

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