

SKOGSARBETEN

1983-05-17

*Ingemar Nordansjo,
Swedish Logging Research Foundation*

Presented by:

*Klas Norin,
Swedish Logging
Research Foundation*

HOW TO GET THE RESULTS APPLIED?

Paper to be presented at the LIRA 1983 Seminar, Rotorua, New Zealand. It is based on the FAO/ECE/ILO Joint Committee paper :

The role of research organisation in training and extension service, by Ingemar Nordansjo, Skogsarbeten.

- Research results are of little value until they have been made known and applied.
- The more research results are used, the greater will be the benefit of the research work.

Every research worker and research administrator should reflect on these two statements. By making such claims, I have clearly underlined the view that every research body should attach great importance to disseminating the results of their research so that they can find practical application. Not least for their own benefit; not only does it help to justify their existence in the eyes of those who provide the necessary finance, but it also enhances the motivation of the individual researcher.

The relevance of what I have said and what I am going to say is not confined to applied research; it is equally important that the results of theoretical research are implemented, although in this case the target groups are small and may be reached fairly easily.

Naturally not all of the work of disseminating the results should be carried out by the research bodies. On the contrary, it is vital that all conceivable resources and channels be used. Nonetheless, in my opinion the primary responsibility rests with the research bodies.

The Effects of Disseminating Results

In theory, the relationship between the effort made to disseminate research results and the benefit to society or the field or branch concerned, from being able to share the knowledge, may be illustrated by a curve such as the one presented in the graph in Figure 1. Obviously, the progression of the curve will vary for different types of results but, in principle, the shape of the curves should remain the same.

The interval between points O and A is distinguished by no or

limited efforts being made to disseminate the results. Consequently, the results remain unknown and are therefore of no use. It goes without saying that it is inexcusable for a research body to find itself in this interval. Unfortunately, this does happen on occasions.

In the interval between points A and B the results are starting to be noticed and are therefore of some use. However, they are still a very long way from achieving maximum effect. In terms of efforts to disseminate results, the majority of research projects probably never get further than point B.

Benefit to society

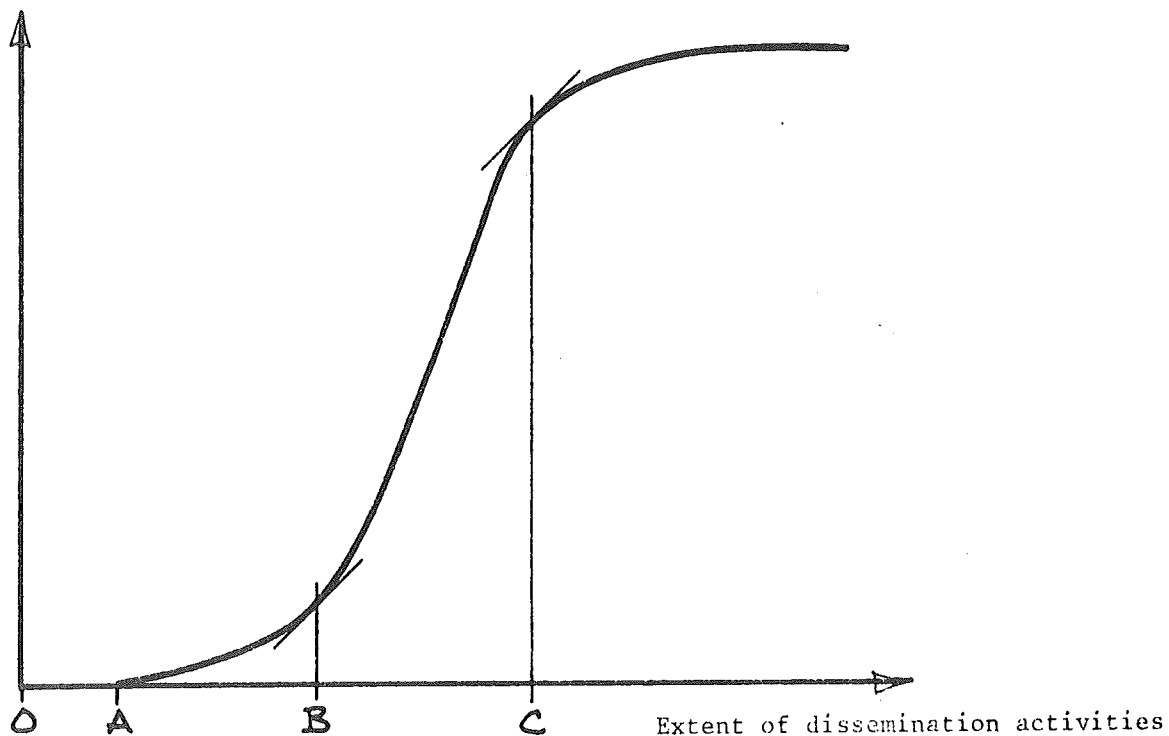


Figure 1 : The relationship between the extent of dissemination activities and the benefit to society arising from these results.

It is not until the interval between points B and C is reached that the important effects are achieved. Thus, the general goal should be to bring the work on disseminating results as close to point C as possible. Throughout this interval up to point C, the cost of disseminating results is lower than the benefit to society derived from sharing in these results.

How, then, are we to achieve effective dissemination of results? In my view, the following conditions must be fulfilled :

- Both in the research work itself and in the subsequent dissemination of the results, careful consideration must be given to the prospective recipients or users.
- Smoothly operating systems must exist for disseminating the results.
- The research bodies must possess competence and proficiency in the dissemination of results.
- Adequate economic resources must be available.

Target-group Analysis

It is natural if a researcher, after months of intensive research, and with the prospect of new and interesting research work that lies ahead, is dismissing the task of disseminating the results too lightly. In such a situation, his main concern may well be to complete his report as soon as possible and to document the work of the project in great detail. In consequence, it is quite likely that the results of the research will not become sufficiently known, nor used to the extent that is worthy of their real value.

To avoid situations of this sort, the answers to two questions should be carefully analysed by the researcher, namely, who is likely to benefit from my results and how are they going to use them?

Once the target groups and the objectives of the information have been ascertained in this way, it is time to decide how the dissemination work is to be effected. Which channels should be used? What material do the respective target groups need? How should the material be packaged? And so on. Naturally it is often the case that different target groups will require the material to be processed in different ways. This means that the results must be presented in a number of different versions, for example, through various parallel publications.

Who, then, are the relevant target groups for forestry research? Obviously the list is long but for the sake of simplicity I have endeavoured to categorise them and present them in the form of a chart, which you will find in Figure 2.

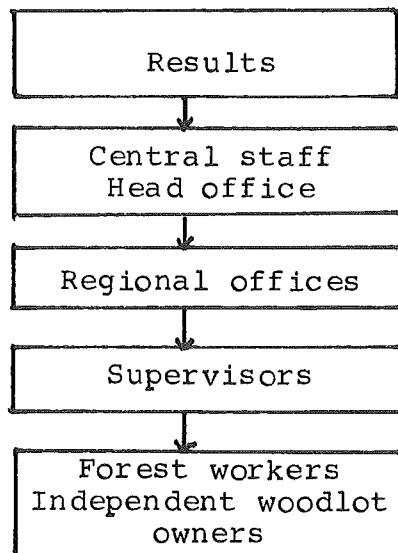


Figure 2 : Levels and target groups within typical forestry organisations.

The first category at the top includes the staff at head office and the central staff. In this category may also be included other researchers, designers and the like. The persons in this group are distinguished by their good theoretical education and the specialised nature of their work, and are therefore able to benefit from more-advanced material. Moreover, in order to make their own

evaluations they also require diverse background information. Yet such persons are often short of time and have a wealth of information competing for their attention.

Staff with a good theoretical education are also to be found at the regional offices and, here too, work is often of a specialised nature. Also to be found in this group are the lecturers at the various institutions, the marketing and service personnel of the manufacturers, etc. This group is very similar to the previous category but because, here, they are closer to practical operations, their need for background information is more limited, whereas their need for results that can be directly implemented is greater.

Supervisors, advisory staff, instructors and the like have not normally had quite as comprehensive a theoretical education. They readily avoid information that is too advanced or which appears to be so. Instead, they require a clear and concise presentation of results that are either directly implementable or that encourage action on their part.

Forest workers require concrete and practical information about working methods and equipment. In the preparation of information of this nature, however, one should not forget to present and explain the relevant ecological, technical or economic causes and effects. This is extremely important to the content and quality of the work. Independently operating woodlot owners should also be included in this target group, although in some respects they also require the same sort of information as supervisors.

Often, all of the target groups should share in the results of completed research. Of course a research body may be content to pass on the information to the head office, on the assumption that it will be circulated within the organisation, but unfortunately this process often takes some time, and there is also the risk of valuable information getting lost on the way. Thus, as I mentioned earlier, the research results should be presented in a form suitable for the respective target groups.

A System for Disseminating Results

The different target groups can be reached through a variety of channels, one of the most important of which, of course, is in the form of various types of printed matter (as is illustrated in Figure 3).

Scientific reports providing a detailed account of the background, study methods, materials, results, etc., are suitable for those with an academic education or engaged on specialised work at the head office and/or regional offices.

To capture the interest of such busy people, the information also needs to be presented in a concise and readable form, such as articles in journals or special information sheets. Information in this form is often suitable for supervisors as well.

For the supervisors, forest workers and woodlot owners, practical directions for working methods can be presented in well illustrated manuals of a high pedagogic standard.

Instructional films and series of slides are a valuable complement

to the manuals and represent an additional channel for disseminating results. Newsreels or journal type films can also benefit all of the target groups.

Another important channel of communication is that consisting of courses and similar activities (as illustrated in Figure 3). Early conferences and seminars are often highly suited to reaching specialists working at central locations. For other categories more regular training in the form of courses, field days, etc., is often more suitable.

It often happens that the research institution does not have a sufficient capacity to reach the supervisors, forest workers and woodlot owners direct. Instead, it can initiate training to be carried out by schools, colleges, companies, forest administration bodies, etc. The research body can contribute by means of drawing up curricula, by training lecturers, providing teaching and training aids, and so on.

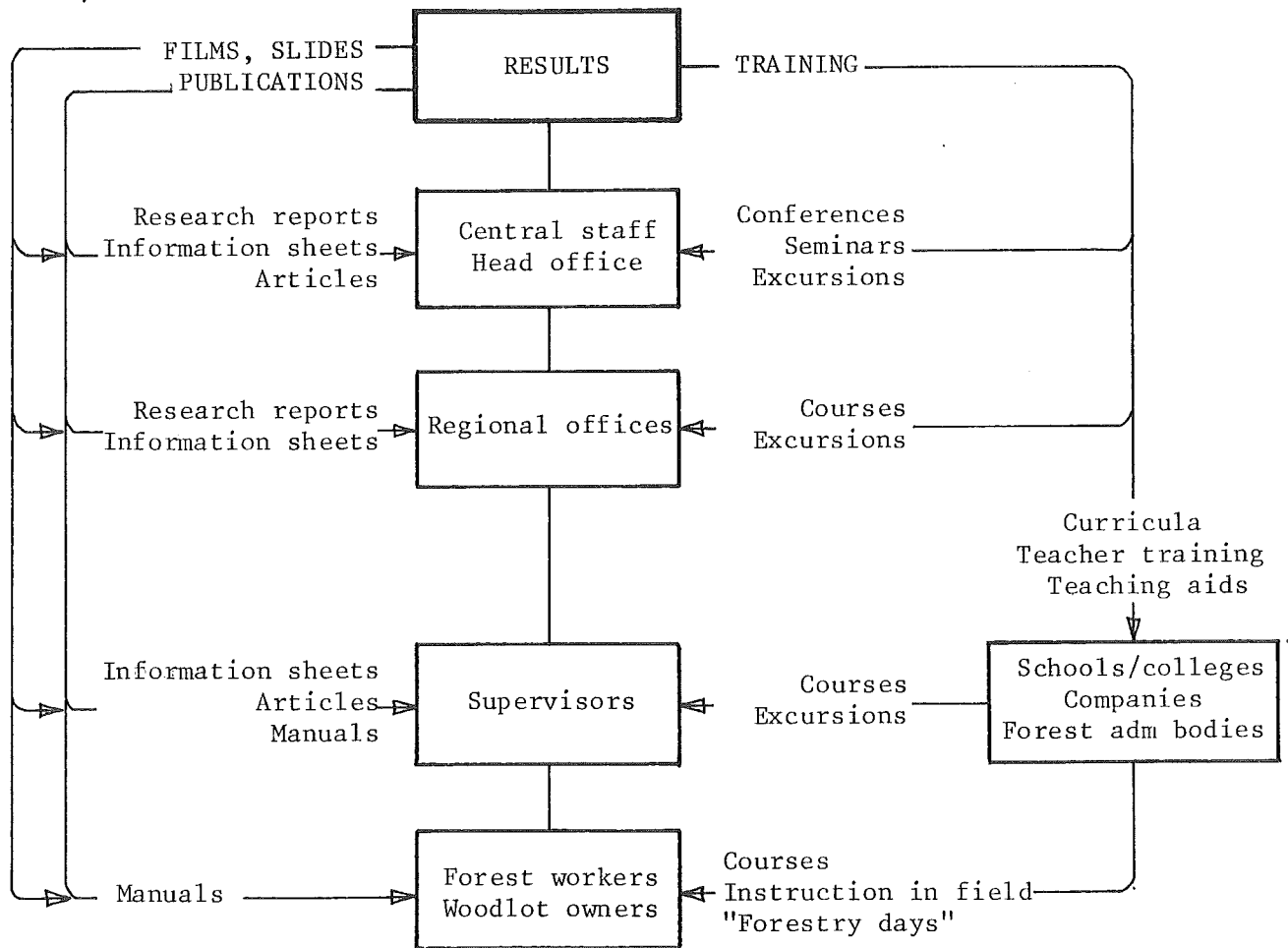


Fig. 3 - Publications, films and training are important channels for reaching the target groups.

In this way, various channels can be opened to reach the different target groups and a complete system for disseminating the research results can be built up. After the analysis mentioned earlier has been carried out, the various channels and media, by means of which the respective target groups are to be reached, can be selected. Generally speaking, several channels and media must be used simultaneously to ensure that the information gets home.

For many years now, we at Skogsarbeten have used a system like this

to disseminate our research results. According to both our own experience and that of others, the system has worked well, and we therefore intend to continue along these lines. With a staff of sixty-odd engaged in research, information services and administration, each year we produce :

- Between 25 and 30 courses, with participants totalling between 800 and 1,100.
- About ten research reports.
- About 30 information sheets.
- About 30 articles for the specialised press.
- One or two manuals and
- Two or three films.

The Researcher as Disseminator

Are we not, then, making heavy demands on the researcher? Not only must he be able to find solutions to difficult research problems, but it seems he must also possess the combined talents of a teacher, a writer and a media expert. Yes, presumably it would be wrong to demand all this from an individual researcher. Clearly he requires the support of specialists in the fields of pedagogics and information techniques.

But the researcher himself should identify the target groups and objectives of the information work. And the earlier the better. If this is done as early as during the planning of the project, not only can this have a positive effect on the actual research work, but it also means that material, such as photos, can be collected specifically with a view to the subsequent dissemination of the results.

After the target-group analysis, the various media for disseminating the results are selected. The researcher should then prepare a synopsis (for the future publication, address, film or whatever), which should include an outline of figures, tables and the like. This synopsis then serves as a suitable basis for discussions with others involved directly or indirectly in the work. If the talks are conducted at this stage, it is easier for those involved to confine themselves to the essentials in the work, rather than to become side-tracked by semantics, stylistic details, and so on. In addition, the writer will generally not have had time to become stuck with a given arrangement.

Once the synopsis has been discussed and settled, and as far as possible adapted to the needs of the target group, the researcher/author has a sound point of departure for doing the actual writing work. This manuscript may then be the subject of limited or extensive attention on the part of the editorial staff.

This entire process, then, is aimed at ensuring that, to the greatest possible extent, the content, arrangement, presentation and style of the publication are consistent with the needs and requirements of the target group. In general, for this to be successful, the researcher will require a certain amount of training and guidance, as well as the support of a number of specialists.

The Financing of Information Activities

But can one afford such intensive work to disseminate research results? Surely, this takes resources away from research?

Let us have another look at the graph in Figure 1 and base our reasoning on this. From the origin to point B on the horizontal axis, it is clear that research funds must be utilised to disseminate the results. But even at point A, it is reasonable to expect part of the cost to be borne by the recipient, while from point B the dissemination activities should be financially independent.

But if the publications, courses, etc., cost money, does this not hamper the dissemination of the research results? Obviously one cannot completely rule out such an effect, but I have found that an information service that is largely self-financing has a long list of intrinsic advantages. For instance :

- The necessary resources for intensive dissemination work are obtained without corresponding resources having to be deducted from the research funds;
- The purchaser demands high-quality information - the research organisation is therefore compelled to produce products of a high standard;
- The research body has an added incentive to market its results. The greater the success in marketing, the greater the economic return;
- The market forces help to guide the activities as close as possible to point C on the graph - the optimum level.

