

PROGRESSIVE FORESTRY

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Francis Bacon, the English philosopher, in his *Novum Organum* (1620) pointed out that various meanings of a certain word is one of the main reasons why it is so difficult for mankind to obtain mutual understanding. This applies to the terminology of forestry too, even though this terminology is of a relatively recent date. An outstanding example was given by E. S a a r i in his contribution to the papers of The Third World Forestry Congress. (The sustained yield in forestry. Proceedings of The III World Forestry Congress. No 3. pg. 277 ff.).

As a conclusion of a historic and technical survey of the shifting senses in which the term «sustained yield» has been and still is being used by foresters, S a a r i draws up four fundamentally different principles of forest management, all named by this same term. In order to avoid the ambiguity of terminology S a a r i proposes to rule out all together the term «sustained yield» and to replace it by two new terms, which give a clear distinction between the two main principles of forest management, the principle of «sustained cut» and the principle of «sustained growing stock». This is quite logical.

Furthermore S a a r i points out that neither of these principles are satisfactory to a modern forester who, in order steadily to increase the utility of forestry, wants to make a more dynamic approach to forestry work. As an appropriate term for expressing this idea of forestry S a a r i proposes: Progressive forestry.

This proposal was accepted with enthusiasm by members of the Congress, however not without a certain degree of misconception of the whole matter, which follows from the fact that in the resolutions of the Congress it was resolved henceforth to replace the term «sustained yield» with the term «progressive yield». (Proceedings no. 4, p. 70.)

In substituting the word «forestry» in S a a r i's proposal with the word «yield» in the term adopted by the Congress, the confusion which S a a r i wanted to avoid has in fact been maintained. When it is desirable to rule out all together the term «sustained yield» it is not on account of any doubt concerning the meaning of the word «sustained» but on account of the multiple conceptions of what the word «yield» is standing for.

In ordinary practical forest management »yield« in the majority of cases is used synonymously for cutting. Taken in this sense as a principle of forest management progressive yield may very well lead to degressive forestry. Conversely progressive forestry may for a period envisage degressive yield with respect to yearly cuttings.

Thus nothing is gained in precision of expression by substituting the term »sustained yield« by the term »progressive yield«, and in reality such a substitution is impossible, because there still are two different principles of management involved, viz the principle of sustained cutting and the principle of progressive cutting. It is the ambiguous word »yield« that has to be substituted by a unequivocal term and not the word »sustained« which in the terminology of forestry is used in only one sense.

In forestry the aim of production must be the same as the aim of all other branches of production, and that is the maximum return in relation to the scarce means of production. To strive for maximum gross product in forestry would be to give forestry a priority before all other kinds of production.

The yield of forestry is, however, of widely varying kinds, and in many respects difficult if not impossible to assess in money, (f.i. influence upon climate), but this does not involve the problem of optimal production itself. If in order to simplify the discussion the wood-increment in a certain forest is taken as the only kind of yield produced in that forest a progressive forestry should aim at equalizing the marginal costs and the marginal value of production at a steadily higher intensity of silviculture augmenting the increment as well in quantity as in quality, be it by diminishing the costs or by augmenting the value of the production, or by a combination of both.

It is inherent to the specific nature of forestry with its extremely long periods of rotation that the balancing must be undertaken not on the basis of transitory economic conditions but on the long view.

The development of silvicultural science and technique during the latest decades has provided the modern forester with manifold means of improving the yield of forestry.

With special regard to wood-increment there is, in order to mention a single example, the possibility of replacing natural regeneration by artificial cultivation of faster growing species or of trees of special quality.

To apply all technical possibilities in order to increase the yearly increment or the output of other forest products of value means progressive silviculture.

To do it only with due regard to the relationship between marginal

costs and marginal value means progressive forestry. Such considerations will under varying circumstances call for application of different principles of management as to cutting, varying not only from forest to forest and within the same forest from period to period but also according to the economic possibilities of the forest owner and the according to forest policy in force.

Such considerations might in some cases or periods lead to progressive cutting, in other cases or periods to sustained cutting and still in other cases or periods even to degressive cutting. It all depends upon the specific nature of the forest in question primarily with regard to the distribution of tree-species and age-classes.

To make in view of the imponderable utility of forestry to mankind and in accord with a progressive forestry flexible solutions to the problem of discrepant valuing of this utility by the private forest owners on one side and by the community on the other side means progressive forest policy.