

FORESTRY AND RURAL DEVELOPMENT

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SELOSTE:

METSÄTALOUS JA MAASEUDUN KEHITTÄMINEN

The development of a society often involves deep-going changes in its economic and social structures. According to the theory of cumulative growth, the economic changes attached to industrialization and modernization of a society are characterized by the regional differentiation of economic activities. Due to the dynamic forces of cumulative development expansive growth centres, areas with spread effects, and back-wash areas will develop. The non-economic changes, such as a general differentiation of social activities into separate subsystems and the development of high motivation for achievement, are also significant.

The impact of industrialization and modernization on society as a whole usually manifests itself in an achievement of many of the welfare objectives considered universally desirable. There are, however, differences in the different industries or other economic activities in respect to their effect on the economic and social life of a society or of a region. In the case of forestry and the forest industries, one important special feature is that they are more directly concerned with rural districts than most other economic pursuits. The differentiation effect of forestry and the forest industries is not so pronounced as that of certain other industries or economic activities. Especially the back-wash effects remain rather weak. Hence forestry and the forest industries can impede the «natural» tendency towards regional differentiation and inequality.

In a traditional, non-industrialized society the establishment of forestry activities may have an important role in the beginning of economic and social development which is rational from the point of view of the local communities as well as of the society as a whole. However, forestry may have also some influences which one can classify as socially undesirable. As far as traditional rural societies are concerned, one basic problem is that the establishment of forestry activities may advance the disintegration, of ancient social institutions and structures. On the other hand, in a modern, industrialized society one primary function of forestry seems to be to maintain and strengthen the rural social structures and to equalize the regional differences caused by cumulative development. However, the role of forestry in rural development is likely to decrease when the industrialization and modernization goes further. One reason for this is the fact that the increasing urban population will use forests for purposes other than forestry, such as recreation and nature conservation.

INTRODUCTION

Development is a concept to which people may give different definitions according to their various value-orientations. In this paper the concept refers to certain economic and non-economic processes leading toward a modern industrialized society.

The aim of this paper is to present these basic economic and non-economic changes underlying the modernization and industri-

alization of a society, and to specify forestry's special features and potential contribution to social change from the standpoint of rural development. The role of forestry is considered in both a traditional society and a modern rural environment. It is assumed that the forest industries are also covered by the term forestry.

SOCIAL CHANGE: THEORETICAL FRAMEWORK

Economic changes

Today's society is often called a «changing society» with the processes of change being described by such concepts as «industrialization» or «modernization». These concepts naturally refer to the background factors which are seen as embodying the essence of the change processes.

Industrialization, broadly defined, refers to the fact that industrial processing and the services in a given society or in a region develop faster than primary production. It manifests itself in the increasing application of divided labour, large-scale production and modern technology to production and the utilization of natural resources.

Industrialization often involves deep-going changes in the economic and social structure of the society concerned. The economic changes attached to industrialization can, in a general way, be described by the theory of cumulative growth. This theory emphasizes the cumulative nature of economic growth and regional differentiation specifically where no economic or social policy means are used to influence the development.

According to the theory of cumulative growth, industrialization is characterized by regional differentiation of economic activity. On the one hand, strong economic growth areas are developed, with back-wash areas characterized by weakening pre-conditions for economic activity, on the other. However, regional differentiation does not proceed in a linear manner. Apart

from growth and back-wash areas, areas with spread effect develop. These are areas to which the stimulating influences from the growth areas spread.

The process of cumulative growth and regional differentiation thus means a distribution of scarce resources in such a way that economic expansion in one area is accompanied by at least a relative contraction in some other areas. Among the essential mechanisms transmitting this kind of expansion of economic activity are three factors: (1) Migration brings about an accumulation of, trained people, especially of those at the most productive age, in growth areas; (2) Good returns on investments characteristic of economically expanding areas tend to attract the available capital to these areas; (3) Growth areas with an expanding population and economy also offer a favourable opportunity for developing trade which, in turn, increasingly directs consumption into the growing population centres.

At the local community level, the cumulative development characteristic of industrialization follows the above-mentioned variables. Cumulative economic development usually starts from an expansion of industrial processing, which in practice means establishment of a modern industrial plant in an area. The establishment of such a plant brings about both primary and secondary changes in the area of its location. Essential primary changes are those in population density and the division of labour:

- The employment effects of modern industrial plants in their locality become considerable. Hence the establishment of an industrial plant almost invariably brings about migration into the area, thus increasing the density of population and strengthening the formation of habitation centres (urbanization).
- The industrial plant also brings to the area a considerable amount of people with vocational specialization, thus increasing the division of labour in the society as a whole. At the same time, the amount of people in the primary production decreases.

Primary changes are usually followed by a number of secondary changes which in turn result in a greater and greater population density and an increasing division of labour. Essential *secondary changes* are those in employment, level of income and in various public services:

- The establishment of an industrial plant results in an increase of income and employment in the area. Since this change increases the share of vocationally specialized population it is likely that the level of income and education also rises. The growth of incomes, in turn, brings about an increasing demand especially for services.
- The cumulative economic development in the growth area often creates a diversity of economic, social and administrative institutions. Large population centres offer certain advantages for this kind of institutions, such as good traffic and communication channels. In fact many service industries and social activities require a certain amount and density of population in order that their activities in the area be profitable or «indispensable» with respect to local circumstances.

Non-economic changes

Industrialization is also accompanied by significant non-economic changes in the structure of society and in social values.

Industrialization manifests itself, in the first place, in an effort to organize the productive resources to serve human objectives as efficiently as possible. In this sense, industrialization can be regarded as a social change brought about by *efficiency aspirations*.

The non-economic changes pertinent to industrialization can in a general way be described by comparing the characteristic features of traditional, non-industrialized and modern, industrialized social systems. In the structure and social values of *traditional social systems* the following properties are emphasized:

- A general lack of differentiation of social activities and of division of labour. For example, religious, political and economic activities are not differentiated as separate subsystems.
- A static nature of objectives, undeveloped technology and lack of economic rationality, which manifests itself in a low motivation for achievement and in a small willingness to adopt technological and organizational innovations making production more efficient.
- High birthrate, strong primary group relations (family, tribe) and a strong pressure toward conformity of social behaviour.

In the structure of modern, industrialized social systems, on the other hand, several structural features contradictory to the traditional system are found, which enable the resources of the society to be efficiently utilized. In the structure and social values of *modern social systems* the following aspects are pronounced:

- A well developed division of labour and a general differentiation of social activities into separate subsystems.
- The dynamic nature of both social structure and social objectives, through which the selection of most efficient means for attaining certain aims is ensured. A high motivation for achievement and the adoption of new methods and application of scientific findings in production are typical characteristics.

- A well developed communication system and a diversified interaction with those outside the social system.
- Decreasing birthrate, increasing significance of secondary group rela-

tions, of such as political, economic and labour organizations, and a weakening of the pressure on the individual to conform socially.

FORESTRY AND RURAL DEVELOPMENT

Forestry's special features and potential contribution

The impact of industrialization and modernization on the society as a whole usually manifests itself in an achievement of many of the welfare objectives considered universally desirable. This is in fact one of the very functions of industrialization and modernization and yet certain socially undesirable influences also tend to develop unless conscious measures are taken to avoid them. The political system and its traditions in a society largely determine what the social consequences of cumulative development will be.

There are, however, differences in the various industries or other economic activities with respect to their effect on the economic and social life of a society or region. In the case of forestry and the forest industries, one important feature is that they are *more directly concerned with rural districts than most other economic pursuits*. Some of the influences exerted by forestry and the forest industries are briefly specified below. The specification of these influences is made from the point of view of rural areas and rural development:

- The differentiation effect of forestry and the forest industries is not so pronounced as that of certain other industries or economic activities. Especially the *back-wash effects* are somewhat weaker than those resulting from most other manufacturing industries. This is due to the fact that the forest industries extend their timber growing and procurement into the remote areas thus arresting the total decline of these areas and slowing the movements of labour, capital, goods and

services or, in general, the «natural» tendency to regional differentiation and inequality.

- Forestry and the forest industries can play a valuable role in rural development by making *additional income and jobs available to the local population*. Revenue from woodland and new jobs in forestry and the forest industries may be one of the decisive factors preventing the disintegration of the local social structure or moderating the backwardness of the rural areas.
- The *close interaction between forestry and agriculture* has to be considered. In many parts of the world forestry and food production can be effectively combined. Both economically and ecologically, forestry can promote the development of agriculture or vice-versa. Agricultural and forestry activities are seasonally complementary. Agro-forestry can also make the land more productive which will bring greater economic and social benefit to rural people.
- The establishment of forestry activities may *facilitate certain social services and the development and maintenance of infrastructures in the rural areas*. For example, the expansion of forestry activities usually requires the schooling of and health services for the forest workers, and the construction of new roads to the remote areas. Such forestry activities are likely to contribute to the dissemination of professional skills to rural districts; to raise the level of aspiration; to increase the general motives for achievement and to help the establishment of other industries or economic activities.

— Today, millions of hectares of productive land are destroyed each year, mostly by overcutting the forest and brushland for fuel, burning the grassland to create better pastures, and overgrazing. This *natural resource destruction can be considerably reduced by appropriate forestry activities*. Forests protect nature. They affect soil conservation, water control, restoration of mountain land and so on. In fact, the contribution of forestry activities to natural resource conservation is very important in rural communities' struggle for existence in many parts of the world.

Forestry and rural development in a traditional society

A characteristic trait of traditional rural regions is an overall poverty which has its origin in the poor economic and natural conditions, and in the rapid rate of population increase. This is a social situation which does not easily lend itself to development. People living in the traditional rural areas have a lower productive efficiency than those living in a modern social environment. In traditional rural areas the inhabitants are usually believers in the ancient variants of religion with their attendant superstitions and lack of economic rationality. In fact, their entire systems of values take on such an imprint of poverty and backwardness that they become more and more reluctant to adopt the ambitious aspirations of a developing society.

In such situations the establishment of forestry activities and the introduction of sound forest management practices may have an important role in the beginning and maintenance of economic and social development which is rational from the point of view of the local communities as well as of the society as a whole, and which is based also on the ecologically sound natural resource use.

Rural poverty is reflected in low income, unemployment, inadequate diet, and lack of different social facilities. However, forestry and the forest industries can be effectively used to fight against these social

handicaps. Additional income and new jobs can be created by establishing forestry activities in remote rural areas. The possibility of improving total production by combining silviculture with agriculture and livestock seems to be promising. The establishment of forestry activities facilitates certain social services and the development of infrastructures. Self-sufficiency and the local independence of the traditional rural regions can be promoted by intensifying forestry. Moreover, natural resource destruction can be arrested and an increased production of natural raw materials can be sustained by the appropriate forestry activities.

However, the establishment of forestry activities and the introduction of new forest management practices may have some influences which one can classify as socially undesirable as far as traditional rural societies are concerned. One basic problem is the *almost unavoidable disintegration of ancient social institutions and structures*. It must be borne in mind that economic change brings about or is conditioned by some deep-going non-economic changes in a society. The process of development is a circular one where many economic and non-economic factors are operating simultaneously. Even when — and this is quite often the case — the local population wishes to retain its traditional way of life it is difficult to avoid certain qualitative changes in the structure of the society or local community and in its social values. However, the special features of forestry activities give some possibilities to take into account the wishes of local population and to curb tendencies toward regional differentiation and inequality.

Forestry and rural development in an industrialized society

In a modern, industrialized society the rural areas have usually undergone rapid social change. The importance of primary production, especially in agriculture and forestry, have decreased. The dynamic forces of industrialization and modernization have led to the functional and regional differentiation of economic activities; spe-

cialization in production has increased, expansive growth centres, areas with spread effects and back-wash areas have developed. Especially in the remote rural areas, the whole structure of the social system is in danger of breaking up. This is because of the cumulative processes mainly generated by large-scale migration and capital movement.

In a modern, industrialized society one primary function of forestry and the forest industries seems to be *to maintain and strengthen the social structure and to equalize the regional differences caused by cumulative development*. Also in the modern rural areas the establishment of forestry activities makes the additional income and new or part-time jobs available to the rural population. The close interaction between forestry and agriculture is also of great importance although the specialization in farm husbandry is increasing. In addition

to this, forestry activities can maintain infrastructures and collective services which are necessary prerequisites for the existence and functioning of the rural social systems.

The role of forestry in rural development may decrease when the industrialization and modernization goes further. One reason is the change in the ownership pattern of private forestry which usually follows industrialization. The change in the ownership pattern means that the number of non-farmer or urban (absentee) forest owners increases rapidly, and thus revenue from woodland no longer benefits the rural population. It is also likely that the increasing urban population will use the forests for purposes other than forestry, such as recreation, tourism or nature conservation which also may weaken the role of forestry and hence the forest industries in the rural development of a modern, industrialized society.

REFERENCES

- BENE, J. G. & BEALL, H. W. & COTE, A. 1977. Trees, food and people: land management in the tropics. Ottawa, International Development Research Centre. 52 p.
- GRAYSON, A. J. ed. 1976. Evaluation of the contribution of forestry to economic development. London. Forestry Commission Bulletin No. 56. 95 p.
- HAHTOLA, K. 1973. The rationale of decision-making by forest owners. *Seloste: Metsänomistajien päätöksenteon perusteet*. Acta For. Fenn. 130: 1–112.
- JÄRVELÄINEN, V-P. 1971. Factors influencing silvicultural activity. *Seloste: Metsänhoidolliseen toimintaan vaikuttavat tekijät*. Commun. Inst. For. Fenn. 73 (2): 1–107.
- MYRDAL, G. 1957. Economic theory and underdeveloped regions. London.
- REUNALA, A. 1974. Structural change of private ownership in Finland. *Seloste: Yksityismetsänomistuksen rakennemuutos*. Commun. Inst. For. Fenn. 82 (2): 1–79.
- RIIHINEN, P. 1970. The forest owner and his attitudes toward forestry promotion. Acta For. Fenn. 109: 1–46.

SELOSTE:

METSÄTALOUS JA MAASEUDUN KEHITTÄMINEN

Teollistuminen ja uuden aikaistuminen merkitsevät usein syväleikkäviä muutoksia yhteiskunnan taloudellisessa ja sosiaalisessa rakenteessa. Taloudellisia muutoksia voidaan kuvata kasautuvan kasvun teorian avulla. Teorian mukaan kasautuvaa kehitystä ohjaavat voimat synnyttävät taloudellisen toiminnan kasvualueita, leviämismuutosten alueita ja supistumisalueita. Sosiaalisen rakenteen ja sosiaalisten arvojen muutokset, kuten sosiaalisten toimintojen eriytyminen omiksi osa-

järjestelmiksi ja saavutusmotivaation yleinen voimistuminen, ovat myös merkittäviä.

Teollistumisen ja uuden aikaistumisen vaikutukset yhteiskunnassa ilmenevät monien sellaisten hyvinvointitavoitteiden saavuttamisena, joita pidetään yleisesti toivottavina. Eri teollisuuden haaroilla ja taloudellisen toiminnan aloilla on kuitenkin erilainen vaikutus yhteiskuntien ja paikallisyhteisöjen kehitykseen. Metsätaloudelle ja metsäteollisuudelle on ominaista, että ne vai-

kuttavat suoranaisesti maaseutuyhteisöjen kehitykseen voimakkaammin kuin useimmat muut taloudellisen toiminnan alat. Metsätaloutta ja metsäteollisuutta kehittämällä onkin mahdollista ehkäistä teollistumiseen ja uudenaikaistumiseen yleisesti liittyvää taloudellisen kehityksen alueellista erilaistumista ja siitä aiheutuvaa alueellisen kehityksen epätasaisuutta.

Perinteisissä, teollistumattomissa yhteiskunnissa metsätalouden kehittämällä voi olla huomattava merkitys sellaisen taloudellisen ja sosiaalisen kehityksen alkuunpanijana, joka on tarkoituksenmukaista sekä paikallisten yhteisöjen että koko yhteiskunnan kannalta. Metsätaloudella voi kuitenkin olla myös sosiaalisesti vähemmän toivotta-

via vaikutuksia. Perinteisissä yhteiskunnissa kysymys on siitä, että metsätalouden voimaperäistäminen saattaa edesauttaa perinteisten sosiaalisten instituutioiden ja rakenteiden hajoamista. Uudenaikaisissa, teollistuneissa yhteiskunnissa metsätalouden eräänä tärkeänä tehtävänä voidaan sen sijaan pitää maaseutuyhteisöjen elinvoimaisuuden ylläpitämistä ja kasautuvaan kasvuun liittyvien alueellisten erojen tasoittamista. Metsätalouden merkitys maaseudun kehittämisessä näyttää kuitenkin pienenevän teollistumisen ja uudenaikaistumisen myötä. Tämä aiheutuu mm. siitä, että kasvava kaupunkiväestö haluaa käyttää metsiä muihin kuin metsätaloudellisiin tarkoituksiin, kuten virkistykseen ja luonnon suojeluun.