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**The Consolidation of
Farms in Six Countries
of Western Europe**



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REDEFINITION OF FARMS IN SWEDEN¹

LIKE most other countries Sweden is confronted by several difficult agricultural problems. Her climate and the development of modern industry and world trade have had a great influence on her agriculture and created new problems for the redefinition of farms.

To obtain an understanding of these problems, it is necessary to look first at the historical background. Right up to the beginning of last century, agriculture remained the chief occupation of the country and it was only a couple of decades ago that industry began to employ more people than agriculture. The agricultural population has decreased from a little over three millions seventy-five years ago to considerably less than two millions now, but agricultural production has increased during this period and is still increasing. This is due to larger crops per acre and more efficient livestock; the cultivated area has not increased, and practically all land fit for agriculture is now cultivated. There is still a little that could be brought into cultivation, mostly by draining or embanking, but on the other hand, some land which is now cultivated—mostly small, stony, distant fields in the forests, which are not economical—is being laid down to forest.

From the Middle Ages onwards the state has tried to regulate agricultural development, the principal motive recently being not only to support agriculture's own interests, but to maintain and develop agriculture as a good tax contributor. The state has therefore favoured land settlement, land reclamation, and the improvement of existing farms. On the other hand, it has tried to prevent the splitting up, or parcelling of farms.

Swedish farmers have always been free men. There has never been any villeinage in Sweden. During the seventeenth century some attempts were made in this direction by the nobility, but they were not successful, and the owner-occupier has always predominated. Most estates are small and are farmed only by the owner and his family. The landlord-and-tenant system is far less common than in England. On the relatively few larger farms a good deal of the work was done until recently by day-work tenants and farm servants in return for

¹ A revision of an article under the same title by Evert Andersson and the present writer in *The Farm Economist*, v, 9 and 10, 1947.

allowances, but this system came to an end some years ago, and now all farm workers are paid cash wages.

The great majority of the Swedish agricultural population have always worked on their own land, and this has given them a strong feeling of ownership. It has been of great importance for the stability of the state and society. On the other hand, the conservatism of the agricultural population has retarded and hampered agricultural reform. Further, the Swedish farmer's attachment to land and family interests have led to the parcelling of farms in spite of the state's prohibitions. Contrary to the English principle of primogeniture, farms were often divided between all the sons.

It was 200 years ago, when the farm buildings were mostly collected in villages, and the fields were often splintered in very small strips, that the first enclosures began, called *storskiftet*, the intention being that the many small strips should be changed into a few large parcels. This was to be done by official land surveyors, and was controlled and confirmed by judicial procedure, but it was not entirely successful, owing largely to the suspicions of the farmers. As a result, there was certainly some reduction in the number of strips, though many remained.

Shortly after 1800—partly influenced by agricultural progress in England during the eighteenth century—the next form of enclosure was introduced called *enskiftet* (one-parcel change), modified twenty-five years later by *laga skiftet* (legal change), by which all the fields belonging to the same farm were to be brought together. By these two processes the Swedish countryside was thoroughly altered during the nineteenth century. The farm buildings were moved from the villages to the fields, and the fields were brought together. This made for great progress and led to widespread agricultural development.

At the end of the nineteenth century, however, many of the anti-parcelling restrictions were removed under influence of liberal ideas, and many farms were parcelled again, often very unsuitably, to satisfy temporary owners who wanted to make as much as they could in a short time without thinking of the future of their farms. It is necessary for economic farming in most parts of Sweden for a farm to have a sufficient area of forest in addition to its cultivated land. But during this period the forest part was often split off from the rest, and restrictions had soon to be introduced again. In 1926 there came a new Act, *jorddelningslagen* (estate-parcelling act), by which any parcelling of land has to be supervised by official land surveyors, and only such

changes and parcelling as can be done without injustice and such as will contribute to form good farms, is permitted. This act is still in force.

The legal methods of estate parcelling are mainly two: *Laga skifte* (legal change) and *avstyckning* (separation). *Laga skifte* may be used for parcelling an estate in fixed proportions, for instance, for dividing a farm between the sons of the owner, or it may be used for improving the layout of farms by rearranging the fields belonging to different farms. Parcelling is permitted only if the parts of the farm are so large that each can remain as a self-supporting and economic unit. Improvement by exchanging or rearranging fields is permitted if a majority of the landowners concerned agree, and if it can be done without detriment to anybody concerned. This *laga skifte* is difficult to manage; the value of every plot of land has to be estimated separately, the sum of the values representing the total value of the farms concerned.

Avstyckning requires much less labour. There is no fixed proportion between the size of the original estate and the separated piece, but the part to be separated must be fit for some acceptable purpose (for instance, for farming as a self-supporting unit, or for a building lot), and the rest of the estate must also be fit for its former or for some other acceptable purpose.

In 1926 there was another Act, *sammanläggningslagen* (act of joining) which is still in force. According to this Act, two or more estate-units or parts of estate-units separated by *avstyckning* can be joined together to form one estate-unit.

The present methods for transforming estates have been criticized, and better methods are being sought, but before they can be explained it will be as well to describe the present farm units. They are mostly small. Of the 307,000 which have tilled areas exceeding 5 acres, not less than 114,000 are between 5 and 12½ acres, 97,000 between 12½ and 25 acres, 60,000 between 25 and 50 acres, and only 36,000 have arable areas of more than 50 acres. Many of the smaller estates are so-called 'supporting farms', where the occupier obtains his main income from other work. Further, most Swedish farms combine agriculture and forestry, with forestry occupying a very important place, partly because of the ready income which the forest brings in, and partly because climatic conditions are such that agriculture cannot be carried on during the winter, when the forestry work makes a fitting complement.

The great importance of the forest for balancing the work has been

recognized in recent legislation. At *avstyckning*, sufficient so-called supporting forest must be included in any part separated for agricultural purposes. Of course, the appropriate proportion between cultivated land and forest varies a good deal. In southern Scania a farm can be balanced without forest, but in north Sweden the convenient proportion of cultivated land to forest is 1:10 or more, depending on the quality of the forest land.

With regard to their size and labour complement, farms in Sweden are often classified as supporting-farms, incomplete farms, family farms, and larger farms. Supporting-farms have already been described. A family-farm is a farm of such a size that its demand for labour corresponds with the labour strength of an average family. Larger farms must have hired labourers. Incomplete farms are principally those with insufficient work to maintain their labour complements in steady and effective employment.

A large farm with insufficient forest for giving the necessary agricultural labour full employment during the winter is an incomplete farm. But the most usual incomplete farm is the one which contains too little land under cultivation to give the family reasonably effective employment in agriculture and to enable machines to be used economically. This is what is called an incomplete farm in everyday parlance. It has been estimated that there are 200,000 of them in Sweden.

Looking at the existing farms as productive units, it is found that there are only a few which have fully satisfactory layouts for modern mechanized agriculture. By layout is here meant the situation of the fields in relation to the buildings, the roads and ditches and their situation in relation to the fields and buildings, and the sizes and shapes of the fields. For example, it is not unusual in north Sweden to find forest-pieces that are only some tens of yards wide and five or six miles long, and sometimes even longer. And, of course, there are many respects in which the layout of farms fixed a hundred years ago, or more, before the beginning of mechanization, cannot be fit for modern conditions.

It is evident that there is much to do. The present methods, the *laga skifte* and *avstyckning*, are considered insufficient for the task, though they have been criticized also from other points of view. *Laga skifte* requires too much labour and too much time, nor is the result always particularly good. The fixed proportions which have to be allotted between the different parcels are too rigid. It is also impossible

to make accurate valuations of small pieces of farms separately, and it is theoretically incorrect to calculate the value of a farm as being equal to the sum of such estimated values of all the small parcels. The need to plan a well-formed skeleton of roads and ditches has not been sufficiently observed by the law. The weakness of *avstyckning* is that it deals mostly with farms individually, without co-ordinating the plans for different farms at different times.

An interim report of a committee, *fastighetsbildningssakkunniga*, appointed by the government to consider these questions, was issued in 1944, but was so severely criticized that it resulted in nothing. The committee, however, worked on and has had better luck with its subsequent interim reports which have resulted in law reforms for simplifying and facilitating the operation of *laga skifte* and *avstyckning*. The committee is now working on a general reform of the whole system of legal methods of estate parcelling and construction.

In 1946 another committee, the *1942 års jordbrukskommitté*, also reported. Their terms of reference were to consider the agricultural problem in its entirety. For reasons of climate and topography Swedish agriculture cannot compete in cost of production with the large overseas countries, and her agriculture cannot be based on export. On the other hand, the last two great wars have shown how important it is for Sweden to maintain sufficient agriculture. The country is now about self-supporting in food, some years there is even a little surplus in certain items, and given food restrictions, she can endure total isolation. The committee found that the present level of agricultural production cannot be kept up without subsidies, but regarded the importance of being able to survive isolation as justification for maintaining that level.

Another problem the committee had to solve was how the low incomes of the agricultural population could be raised. Agricultural wages were estimated to be about 20 per cent. lower than average wages in other occupations for comparable skilled work. This has accelerated the flight from the countryside. The rationalizing of agriculture in Sweden is bound to involve a reduction of the agricultural man-power, but this ought not to lead to a reduction, with unhappy political and social consequences, of the population in the countryside. A fuller treatment of this subject, however, would take too much space.

The committee made a difference between 'inner' rationalizing, 'outer' rationalizing, and 'running' rationalizing. The inner rationaliz-

ing deals with improvement in buildings, soils, &c., and the running rationalizing with improvements in cattle, manuring, mechanization, &c. This rationalizing can well be realized by private enterprise, though it has been assisted by the state for many years. The committee proposed co-ordination and certain improvements in the methods by which assistance might be given. It also emphasized that measures for inner and running rationalizing must depend on the progress of outer rationalizing, by which is meant improvements in the layout and size of farms. The necessary co-ordination of the outer rationalizing cannot be done by private enterprise; it can be done only with the co-operation of the state.

With regard to the sizes of holdings, the committee introduced the terms 'base' farms and 'norm' farms. Base farms are those of the minimum size for complete farms, i.e. family farms which the committee estimates at between 25 and 50 acres of cultivated land, a size which it favours for social reasons. The most important aim at present, according to the committee, is to convert incomplete farms into base farms. Somewhat larger farms, however, are more profitable and permit more mechanization. Referring to certain statistics, the committee established as a fact that farms of between 50 and 75 acres of cultivated land have most of the advantages of larger farms, which give only about the same interest on capital and little more output per worker. It is farms of this 50- to 75-acre size that the committee called norm farms, and recommended as the aim for the future, though for the near future this aim cannot be reached, as the majority of farms are so small that even to convert all incomplete farms to base farms means a reduction in the number of farms to about two-thirds of their present number.

It is proposed to co-ordinate the replanning measures by regional planning and individual planning. The regional planning will investigate and recommend what sizes of holdings, what proportion of arable land to forest, what sort of production, &c., are most suitable for different parts of the country, thus giving a sort of background for the individual planning, which will deal with the size and layout of the individual farm. As a rule the new photogrammetrical map of Sweden (scale, 1:10,000) will be used for the plans.

The principal way to realize the plans will be by voluntary transfers. But in order to facilitate and hasten the work, official loans will be given to farmers who agree to the plans. The state will also buy farms, or parts of farms, in order to facilitate transfers. It is proposed

that the state shall have the right to purchase any farm which is not to be transferred to near relations. Exceptionally, expropriation will be used.

The report of the committee was criticized in various respects. Trade and industry and also the workers' organization said that agricultural production in Sweden on this scale is not economical, and that the idea of being always ready for isolation ought not to have so much weight, that the lack of workers is a difficulty, that it is not economic to have so many people working on small farms, and that the rationalizing ought to go ahead, aiming at even fewer and larger farms than was proposed.

The objections raised by the farmers' organizations were that to have a great number of owner-occupier farmers is a national asset, if only for social reasons, during times of depression, and that to rationalize large numbers of farms out of existence is an injustice to the individuals concerned.

Finally, the report was criticized by enclosure technicians, who were of the opinion that there must be more space for progressive rationalizing, that the committee had not fully understood the importance of planning and providing for a well-formed skeleton of roads and ditches (all the changes must be co-ordinated, and the skeleton is the basis for this), that it is impossible to fix certain sizes as the most convenient for certain farms, as the convenient size for the individual farm varies with local topographical and other circumstances, while it is important to allow for subsequent changes.

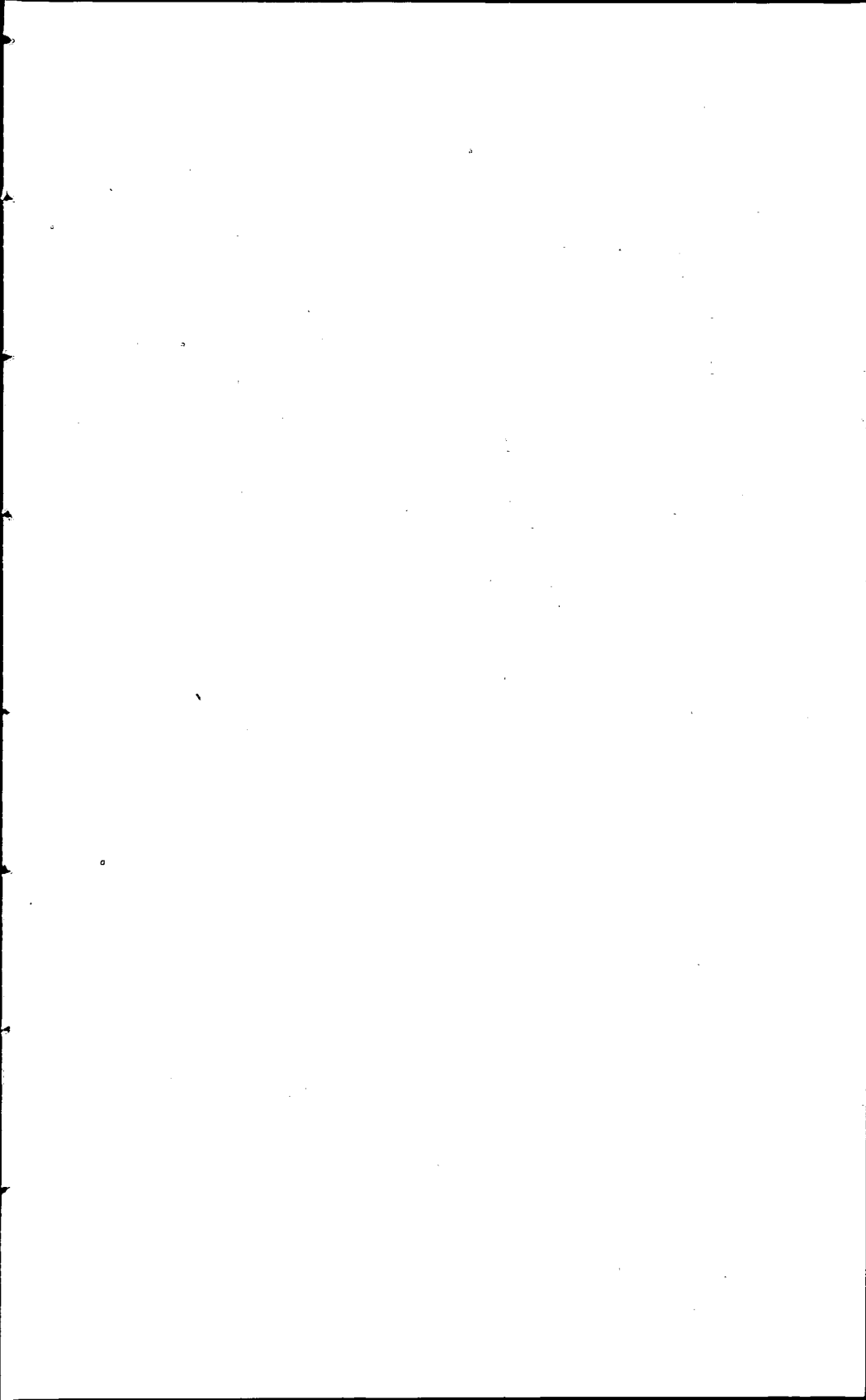
Parliament, however, accepted the proposals of the committee with few modifications, and in order to carry out the work, a special board, *lantbruksnämnden*, was established in each province. These boards have now been in operation for some years. The running rationalizing, with improvements in cattle, mechanization, &c., is going on as was intended, and so are some measures of social relief, which have been entrusted to the boards. But the outer rationalizing work moves very slowly, and it is evident that its objects are not so easily attained as the politicians in power thought. The practical results of the regional planning are unimportant and as the kind of regional planning proposed by the committee has such little practical value, there will be little or nothing of it in the future. The results of the individual planning are more important, but the speed of the work and the number of plans per year is much lower than was expected by the committee and the politicians. This perhaps is a good thing. Individual plans should not be forced against the will of the people; it

is better if they come when the time is ripe, and when those most nearly concerned call for them. Their results will be better, too, if enough time is allowed for thorough exploration of the technical and economic problems in each planning project. It is doubtful, however, if it was necessary to establish such a large new organization as the special provincial boards, the *lantbruksnämnderna*. Probably it would have been better to entrust the outer rationalizing entirely to the existing authority *lantmäteristyrelsen* (the land-survey board) and its subordinated personnel who are handling the legal work of estate parcelling and amalgamation, and have the greatest knowledge and experience of estate rationalizing.

During recent years there have been quite a few researches on subjects which are of importance for the rational transforming of estates. At *avdelningen för lantmäteri* (the Department of Surveying) at *Kungl. Tekniska Högskolan* (the Royal Institute of Technology) in Stockholm some papers and dissertations have been written on such subjects as the economical significance of the distance between the fields and the farm buildings, the best construction and most economical layout of agricultural roads, ditching from the point of view of real-estate technology, and the income value of marginal areas on farms. There have also been researches on the optimal size and shape of fields and the optimal distance between agricultural roads. Following these, *Institutionen för fastighetsteknik* (the Division of Real Estate Technology at the Department of Surveying) has drawn up principles for the rational redefinition of farms. These principles have been tried out in some large planning schemes undertaken by the Division. Each of them comprised an area of from 8,000 to 10,000 acres. For these plans, photogrammetrical maps were used, and experience shows such maps to be well fitted for planning purposes, though the scale should be larger. A scale of 1 : 4,000 or 1 : 5,000 would be more suitable.

Avdelningen för lantmäteri at *KTH* is now being reorganized and new professorships are to be established. This will provide better conditions for research work on the important subjects connected with agricultural rationalization.

Redefinition of farms must be very different, of course, in various countries, depending as it does upon historical background, climatic, topographic, economic, and sociological conditions, but there are many points of agreement too. People dealing with these problems have much to learn from other countries, and certainly a more lively international collaboration should be very valuable.



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