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LAND REFORM

in

HUNGARY

by

Folke Dovring
University of Illinois

June, 1970

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AGENCY FOR INTERNATIONAL DEVELOPMENT

SPRING REVIEW OF LAND REFORM

HUNGARY

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AID Spring Review 1970 - Land Reform

HUNGARY: From Smallholding Reforms to Forced Collectivization

Folke Dövring

I. SUMMARY

Hungary, a small homogeneous and densely settled country, entered the twentieth century with an agrarian structure where large - sometimes very large - estates played a greater role than in most European countries. Even so, both small and medium-sized peasant farms were also an important part of the system. Subdivision of large estates into smallholdings was done twice - to a minor extent in the 1920s and radically from 1945 to 1947. From 1950 to 1960, most of the family farms have again been brought together into large collective farms.

Expansion of agricultural production was rendered difficult by geographical adversities, while a slow-growing population and a sluggish rate of development of the prewar economy gave less apparent urgency to the need for it than was the case in many other low-income countries.

For an underdeveloped agrarian nation with incipient industry, pre-reform Hungary was a reasonably well organized country. Its land was fully occupied with hardly any wilderness areas, and much of the basic infrastructure was in place. Literacy was widespread and landed property registered in a good cadastre.

Bookkeeping data from the 1930s show Hungary's small and medium-sized peasant farms to have been reasonably efficient. Large estates were widely believed to be more so, an opinion which conflicts with the evidence of their recurrent debt problem.

The first attempt at land reform, implemented from 1920 to 1929 in a rather restricted way, touched only about one-tenth of the country's agricultural resources, and maybe one-fifth of those in the previously existing large estates. The holdings created were all very small, and as a result the farm structure became even more obviously unequal, when numerous formerly landless farm workers received subsistence

holdings. Additional reform initiatives shortly before World War II led to very little result.

At the end of World War II, the smallholding reform was resumed in much more radical form, touching about one-third of Hungary's total area and a somewhat lesser share of its agricultural resources. Holdings over 58 hectares disappeared almost entirely, and all the smaller sizes increased in number and in area. About two-fifths of the land sequestered in this reform was not distributed but was converted into State property, for the most part to be managed as large-scale State farms, by the pattern in the USSR.

Also by the pattern of the Soviet Union, most of the peasant farms - old and new - were subjected to propaganda and pressure to form "agricultural production cooperatives," i.e., collective farms. This drive was pursued with uneven success, and suffered a distinct setback in 1956. About or shortly after 1960, most of the collectivization program had been achieved.

Even under the collective system, large parts of the productive resources remain under the control of individual families. This takes place in the remaining individual farms, in "simple cooperatives" mainly of scattered horticultural farms on the Great Plains (which are not true collectives), and on the family plots in State and collective farms. There is also some practice of leasing of land to individuals, and entrusting land parcels to semi-independent work groups, but the extent of these practices could not be ascertained. The resources under individual control include, above all, labor intensive enterprises in horticulture and animal husbandry, but also field crops requiring much manual labor.

Data on employment and the use of labor show a strong decline in the agricultural labor force in the early 1960s, but because of early mechanization also much underemployment. More than half the workload is in individual (non-collective) enterprises.

Agricultural production has not increased much under collective management. Crop production rose hardly at all until the use of fertilizers was stepped up in the 1960s. Animal husbandry increased more because of a switch from grain exports to net imports of feed grains.

The use of externally generated factors of production, especially machines and fuel, is unusually high for the level of productivity and the general economic situation in Hungary. Net product of agriculture grows slowly and the incomes of farm people continue to lag behind those of the rest of the population.

Collectivization is not popular in Hungary. It can be understood mainly against the background of the political and sociological objectives of the Communist régime, based on the specific doctrines of the ruling party.

The evaluation and critique indicate that the reforms in Hungary have been untimely and would have yielded better economic results on a different time pattern. The smallholding reform in the 1920s was too narrow in scope and would better have been done, with more boldness, before World War I. The smallholding reform in 1945-47 could still have laid the bases of a family-farm system, west European style, had its results been allowed to work out. The introduction of large-scale agriculture through State and collective farms was at best premature in the still very labor intensive situation of Hungary at the time, and the units created were often too large - many of them belong in size classes which tend to show decreasing returns to scale in the most advanced countries. The premature adoption of large-scale operation has entailed a waste of resources and is likely to have damaged rather than improved the relations between society's leaders and the working farm people.

II. PRE-REFORM PERIOD

Land reform in Hungary has been attempted, in one sense or another, at least three times. These are:

The smallholding reform begun in 1920 and concluded in the main before 1930;

The smallholding reform 1945-47; and

Land socialization, begun shortly after World War II and in the main concluded in the early 1960s.

There was also an abortive attempt at land socialization under the short-lived Communist regime in 1919. Another land reform attempt was started in 1936, but produced no results of any consequence.

As "pre-reform" period we treat the time span from the turn of the century until 1945. In so doing we must keep in mind the differences between the situation of the interwar period as compared with the years before World War I.

A. Introduction: Economic and Political Background

Modern Hungary, a landlocked country the size of Indiana, is the residual of a much larger state which was dismembered after World War I. The significance of this fact, for our subject, is in the way in which the pre-reform land system was a legacy of a remote past. The situation of military frontier in the centuries-long battles with the Ottoman Turks underlies in several ways the strong concentration of land ownership which prevailed, and also the peculiar forms of rural settlement in a large part of the country.

As to climate, topography, soils, etc., Hungary may appear to the outsider a rather homogeneous country,^{1/} and for most purposes we need not specify provinces or other territorial subdivisions. It will be convenient, however, to remember the three principal subdivisions used in Hungarian geography:

1. Western Hungary or Dunántul, the land to the west of the Danube, mainly low hills and undulating valleys with several low river plains. This part is of relatively old settlement, usually in villages of moderate size. It contains about three-eighths of the country's agricultural land.

2. The Great Plains, or Alföld, the country east of the Danube and south of the upper Tisza. It is mainly a flat plain around the Tisza and its tributaries; most of it was a steppe in the natural state. Settlement is on the whole younger than in the west, population was quite sparse still in the 18th century, and the original settled points have grown into villages of sometimes enormous size, being the home of most of the numerous landless workers. Later on, mainly after the frontier situation had ceased, smaller farms often took the form of isolated farmsteads (tanya), contrasting against the gigantic villages, and not always well served by roads and market connections.^{2/} The Alföld contains about half of Hungary's farmland

3. The North, or Eszak, the country to the north of the upper Tisza and toward the border of Czechoslovakia east of the Danube. Filled largely by the foothills of the Carpathians, this part differs from the rest of the country by more broken terrain as well as more scattered village and hamlet settlements. The North accounts for somewhat over one-eighth of Hungary's farmland.

Within this geographical framework, modern Hungary came out of the World War I peace settlement with proportionately more of the cities and the industry of the old monarchy than did the severed parts, but also with more of the concentration of farmland property among a small number of landed noblemen, the magnates of the Hungarian Crown (still in the twenties and thirties, the country was officially designated as "The Land of St. Stephen's Crown").

The magnates were still a leading class in the interwar period. With agriculture the mainstay of the economy as well as of their private incomes, they maintained a traditionalist, backward looking attitude toward both agricultural and industrial development. Their outlook had hardly been made more modern by the losses they had suffered of those parts of their estates that were in territory lost to neighboring states with a more radical approach to land problems than Hungary.

B. Land Tenure

1. Characteristics

Hungary before World War II was, by European standards, a country of pre-dominant large property in agricultural land. The inequalities in land ownership and farm size were somewhat greater than in England, but by far not as great as in most parts of Latin America at the time. Table 1 shows data on holdings over 50 kataszteri hold (1 k.h. is 0.5755 ha, thus 50 k.h. = 28.8 ha) in 1939.

These larger holdings, between themselves, held a little over half of all the country's farmland, and a somewhat lesser proportion of the land areas subject to intensive use.

Thus there were already large areas held by small and medium-sized peasant holdings. The significance of this is enhanced by the fact that most farms at the time were owner operated; leasehold and sharecropping were both of minor importance - hardly enough even to provide a convenient "ladder" for the advancement of landless young men.

The table shows some interesting features by regions. The Alföld had the two largest estates (of 82,000 and 64,000 k.h., respectively), but otherwise less than its share of large holdings and somewhat more than its share of the moderately large ones (50-100 k.h. = 28.8 - 57.55 ha).

Table 1. Holdings over 50 kataszteri hold (28.8 hectares), 1939

Size class, kat.hold.	Dunantul	Alföld	Eszak	Total Hungary
50-100	4,146	9,279	1,977	15,402
100-200	1,765	3,252	964	5,981
200-500	1,325	1,913	821	4,059
500-1,000	502	587	401	1,490
1,000-3,000	332	367	169	868
3,000-5,000	68	53	31	152
5,000-10,000	62	35	16	113
10,000-20,000	33	12	8	53
20,000-50,000	12	10	2	24
50,000 and over	2	2	--	4
TOTAL	8,247	15,510	4,389	28,146

Source: Annuaire statistique Hongrois, N.C. 47, 1939, pp. 66-67.

The size of ownership holdings does not necessarily appear from the table, since some large landowners could hold several estates and still have them formally "owner-operated" through hired managers.^{3/}

A special tenure problem concerns the large occurrence of entailed estates. In the 1930s, nearly half of all the land in the holdings above 50 k.h. was in entailed estates, with however a lesser proportion in the cropland and a larger one in the forest lands.^{4/} Most of the entailed-estate land was not private property but belonged to the State, the churches, communal entities and "compossessorates" (groups of joint landholders, usually of pasture and forest land).^{5/}

The Hungarian estate system before 1940 had undergone less change since 1900 than was the case in most of Eastern Europe. But it was not altogether immune to change. The modest amount of land reform that was started in 1920 managed to transfer 7-8 percent of the farmland of the country, and a somewhat greater share of the cropland, thus the land distribution before 1920 was that much more uneven than indicated by Table 1. Moreover, this limited reform had partly had the purpose of bringing relief to indebted landowners who could pay their mortgages with the compensation monies they received; the indebtedness of large landowners may also have led to some attrition of the estate system, albeit at a slow pace.

A point where not much change can be discovered is in the occurrence of entailed estates. A report from the 1890s shows them with a role similar to that in the 1930s.^{6/}

C. Land Resource Information

1. Land Availability

Modern Hungary has had its land resources under control and survey for a long time. Retrospective data are shown in Table 2.

Variations since 1900 have been moderate. Agricultural uses occupy 75-80 percent of the total physical area of the country. Cropland use (and agricultural use generally) increased slightly since 1900, reached the peak position in the 1930s, and receded slightly again, allowing some reforestation.

Behind this seemingly static picture lie problems inherited from dramatic changes in the preceding century. The unruly river systems of these lowlands have of themselves caused widespread flooding and long forced large potentially arable areas to be used as pasture. Over long periods of the 19th century,

several rivers were controlled, above all the Tisza system, and large pasture areas could be plowed up, mainly on the Alföld. A great success to begin with, this interference with natural processes eventually led to problems of increased drought incidence and of salinity in some sections of the plains. Subsequent land use adjustments have included conservation works, modifications of the river control systems, and irrigation to wash out salinity. Before such measures took effect, the problems just mentioned contributed to the slowness of development in the country as well as to the financial distress of some large landowners.

Table 2. Land resources, selected years.
Data in thousand hectares, 000's omitted.

Year	1 Arable land	2 Horti- cultural land ^{a/}	3 Meadows and Pastures	4 Sub-total 1+2+3 = agricul- tural land	5 Forest land	6 Swamps	7 Other land	8 Total
1895	5,107	270	2,068	7,445	1,193	48	528	9,215
1915	5,507	312	1,670	7,489	1,050	28	566	9,132
1935	5,614	330	1,614	7,558	1,105	29	556	9,248
1950	5,518	383	1,475	7,376	1,166	29	728	9,299
1960	5,310	393	1,438	7,141	1,306	26	830	9,303
1965	5,085	565	1,304	6,954	1,422	28	904	9,303
1968	5,058	555	1,290	6,903	1,455	32	914	9,303

Sources: Mezőgazdasági adattár 1, Budapest 1965, pp. 2-3 (data for 1895-1964); Mezőgazdasági adatok 1968, 2, p. 6 (data for 1935-67); and *ibid.*, 4, p. 8 (data for 1966-68).

^{a/} Land used for vegetables, fruits, and vineyards.

In addition to the classifications shown in the table, the sources also specify horticultural land as land used for vegetables, for fruit orchards, and for vineyards; meadows and pastures are also shown in separate figures.

Although irrigation plays an important role for land melioration in some sections of the country, the areas irrigated at any one time are relatively small: 100,000 - 200,000 hectares a year in recent years, or 2-4 % of the cropland of the country.^{7/}

2. Identification and Titling

This issue has not been much of a problem in modern Hungary. The country inherited its part of the Austro-Hungarian cadastre, one of the best of its kind in the early modern period.^{8/} In large parts of Hungary, the application of a cadastre system was also facilitated by the rectilinear system of field and parcel layout introduced in the "military frontier" areas of the old monarchy.^{9/}

D. Rural Production and Productivity

Both of these aspects appear as rather static during the pre-reform years for which comparable data are available.

Crop yields are not completely known for the whole period. Data for the years since 1920 indicate no major development (1920-40)^{10/}, at most a rise in output at par with the increase in population, which was not very rapid (see further below). Crop yield data from the 1930s also show no perceptible change over most of the decade.^{11/} Those for 1938 and 1939 are consistently higher than the average for the decade, but they do not exceed earlier peak years, thus no clear trend can be discerned.

Livestock numbers also moved very little; cattle and sheep numbers hardly at all, while pigs showed some increase in the late thirties.^{12/}

Data on labor needed for existing crop and livestock enterprises also indicate a rather static pattern of production and resource use (see below).

Against this background of an essentially static farm industry, some observations can be made on production and productivity by size of holding.

Large landowners in interwar Hungary often opposed the land reform and advanced as a reason against it that it would hurt productivity. The large farms, so the argument ran, achieved higher crop yields, especially of wheat, an important article in Hungary's exports at the time. Crop yield data from 1939 are shown in Table 3.^{13/}

Table 3. Crop yields, 1939, by size of holding. Holding size in kat. hold. (= 0.5755 ha), crop yields in quintals per hectare.

Crop	H o l d i n g s i z e				Total
	Under 20	20-100	100-1,000	1,000 and over	
Wheat	15.6	15.6	17.7	20.9	16.5
Rye	12.2	11.6	13.2	14.8	12.4
Barley	14.1	14.1	15.5	17.9	14.8
Oats	13.4	13.4	14.9	17.4	14.3
Corn	18.2	17.9	19.1	21.2	18.5
Potatoes	72.1	71.2	78.7	91.2	74.0
Sugar beets	214	202	213	230	221
Fodder beets	238	241	252	291	246
Clover	35.6	36.0	36.5	37.5	36.1
Alfalfa	44.3	44.8	46.2	45.7	45.0

Source: Annuaire statistique Hongrois, N.C. 47, 1939, p. 75.

How misleading such figures may be is best appreciated if they are read in connection with those on land use. Selected data are shown in Table 4.

Table 4. Land use by size of holding, 1939. Holding size in kat. hold. (=0.5755 ha), area data in thousand hectares (000's omitted) and percentage terms

Holding size	Total area	Thereof agri-cultural	Agric. as % of total	Of the agricultural area was, in percent:				
				Arable	Vege-tables & fruit	Vine-yards	Meadows	Pastures
Under 100	4,840	4,546	93.9	81.4	2.1	3.9	8.8	3.8
100-1,000	1,791	1,401	78.2	62.0	0.8	1.0	7.4	28.8
1,000 and over	2,623	1,603	61.1	65.6	0.8	0.5	8.9	24.2
Total	9,254	7,550	81.6	74.4	1.6	2.8	8.5	12.7

Source: Annuaire statistique Hongrois, N.C. 47, 1939, pp. 68 sqq.

In the crop yield table, the advantage of the larger holdings is the most striking in the more area extensive crops, such as the small grains. In the more labor intensive ones, such as corn and root crops, the differences are smaller. In some of the latter, it is also clear from the averages that the larger farms grew relatively less of these - the general average is too close to that of the smaller farms. Apparently the larger farms made somewhat less intensive use of their cropland than the smaller farms.

Such a conclusion is strongly suggested also by the data in Table 4. Here there is no doubt whatever that the small farms practiced more intensive land use. The reason is not hard to guess, because the smaller farms with their large overhead of family labor could easier invest a large amount of labor, where the large landholders would have to hire labor for contractual wages, such as they were, and such intensification would not always enhance the net profit of the large landowner. From these general indications it appears plausible that, despite the higher crop yields, the larger farms may have produced less value-weighted output from all their land - or even from all their cropland - than the smaller ones.

This general picture of smaller farms as having a higher output intensity per area unit is confirmed, for the farms up to 100 kat. hold., by a series of bookkeeping accounts from sample farms from the years 1929-38. The results were published only as late as 1941, hence they have attracted little attention.^{14/} The relevant farm-size information is shown in Table 5.

Table 5. Gross return on sample farms, 1929-38, and shares of the same consumed on the farm and sold, respectively. Data in pengő per kat. hold.

Holding size, kat. hold.	Total gross return	Of which consumed	Sold	Percent of total	
				Consumed	Sold
-10	248	109	139	44	56
10-20	193	76	117	39	61
20-30	174	70	104	40	60
30-40	146	59	87	40	60
40-50	141	55	86	39	61
50-100	134	36	98	27	73
Averages	165	63	102	38	62

Source: Kulin and Pataky, op.cit., p. 111E.

The conclusions are not hard to draw. The smaller farm sizes produced very considerably more output per area unit. Because they were smaller, the holders and their families would consume a larger part of the output themselves - this follows immediately from the greater population density on the small farms. But despite this, the higher output intensity on small farms led to the result that the amount of produce sold off the farm, per area unit, was still greatest on the smallest farms. Thus the small farms were by no means disconnected from the market; they even made a proportionately greater contribution to market supplies than the larger farms.

Thus the small farms, which occupied a large part of Hungary's agricultural land, represented a fully viable part of the country's farming system. The magnates' propaganda against the land reform, based on crop yield data, was as misleading as it was self-serving.

E. Rural Population, Employment and Underemployment

Hungary's population growth has been slow since the beginning of the twentieth century. A few selected data are shown in Table 6.

Table 6. Population of Hungary and four main parts, 1910 and 1965.
(Thousands 000's omitted).

	1910 (end of year)	1965 (Jan. 1)	Index 1910-65
Dunántul	2452	3058	124
Alföld	3328	3803	114
Eszak	955	1339	139
Budapest	880	1935	218
TOTAL	7615	10135	132

Sources: 1910 data from *Annuaire statistique Hongroise*, N.C. 47, 1939, pp. 10-11;
1965 data from *Megyék, városok, járasok...adatai*, 1966, p. 53.

The slow movement of agricultural population is suggested by the data from Alföld. Gross figures for population and labor force over time are given in Table 7. Some detail as to labor force composition in 1930 is shown in Table 8.

The agricultural labor force appears to have risen slowly from 1 3/4 million in 1900 to 2.2 million in 1941; there was some increase in the labor-force participation rate, among other things because of aging of the population, so the population dependent on agriculture must have increased even less. In 1960, the total still stood at 1.9 million, thus rural exodus has gained momentum only in the 1960s (on which see further below).

Table 7. Population and labor force, selected years, 1900-1965.
Data in thousands, 000's omitted.

Year	Total	Thereof active	Of which in agriculture	Agricultural labor as percent of total
1900	6,854	2,901	1,735	59.8
1910	7,612	3,144	1,685	53.6
1920	7,987	3,653	2,128	58.3
1930	8,685	3,822	2,031	53.1
1941	9,316	4,297	2,165	50.4
1950	9,293	4,167	2,135	51.2
1955	9,767	4,522	1,952	43.2
1960	9,961	4,827	1,929	40.0
1965	10,135	4,902	1,530	31.2

Source: Mezogazdasagi adattar, 2, p. 3.

Table 8. Active population 1930. Data in thousands, 000's omitted.

Categories	M e n		W o m e n		Both sexes	
	Total active	Agri-culture	Total active	Agri-culture	Total active	Agri-culture
Own-account workers	951	580	274	120	1,225	700
Employers	177	5	76	.2	253	6
Family workers	331	321	224	216	555	537
Foremen	76	1	1	0	78	1
Workers	971	434	256	131	1,227	565
Apprentices	74	.3	11	0	85	.3
Other	352	218	224	3	577	222
Total	2,933	1,560	1,066	471	3,999	2,031

Source: Annuaire statistique Hongroise, N.C. 47, 1939, p. 21, cf. p. 20.

The social situation is suggested by the fact that workers and "other" account for 40 percent of the agricultural labor force at the time. This proportion was one of the highest in Continental Europe at that time, but still not as high as in England. Some of these workers were also holders of dwarf holdings, while on the other hand some of the own-account workers with very small holdings were also to a varying extent available for wage work on the larger farms, as were many small-town dwellers classified as nonagricultural.

The amount of work to be done in Hungarian agriculture at various dates has been measured by using standard labor norms (per area unit under each crop and per animal of each species and description). Using a single set of such norms over time, the following figures were arrived at (in thousand man-years of work required in a year).^{15/}

Years	Million man-years
1911/15	1,226
1931/35	1,194
1947	1,150

The difference between the first and the second period is less than the margin of error in both data and method of estimation. In 1947, Hungarian agriculture had not yet recovered from war damages.

The lack of expansion in the scope of the agricultural job of the country is striking. Thus ongoing melioration works, and such tendencies toward intensification as there were, had just about been offset by extensification elsewhere, particularly because of the drought and salinity conditions mentioned above. The large farms cannot be left entirely blameless for not providing more employment through more intensive land use.

With the scope for employment nearly static over these several decades, the level of employment of the agricultural labor force appears to have been slowly declining during the pre-reform period, or may at best have remained static. By the principles used in computing these employment data, agricultural work may have absorbed about two-thirds of the agricultural work force. Other estimates from the 1940s indicate levels of employment varying from 50 to 75 percent, depending on the bases for computation.^{16/} Whatever the base chosen, the static nature of the situation can hardly be denied, nor can the existence of a high degree of underemployment.

F. Income Distribution

Direct data were not discovered. From the very unequal farm size distribution, with many dwarf holders being in fact agricultural wage workers and the large percentage of the agricultural labor force shown as wage workers in the census, it can be safely concluded that income distribution was highly unequal. On an income level such as that prevailing at the time, this must have meant deep poverty for large parts of the agricultural population.

G. Supplementary Services and Supplies

1. Information

Hungary had a basic school system and elementary literacy was fairly widespread also among its peasants. The higher and intermediary education systems were proportionately better developed than the primary schools, however. State supported research institutes began around the turn of the century to develop a body of knowledge that could be of use to agriculturists, and a network of chambers of agriculture acted in some ways as an extension service.

The effects of this, as of other efforts to improve the economy, are likely to have been greatest among the large landowners and the well-to-do among the peasants, not merely because these people were better prepared by previous schooling, but also because in as outspoken a class society as Hungary, the information that was offered was first and foremost of the kinds that these people needed and could use.

2. Credit

Agricultural bank credit has a long history in Hungary,^{17/} and the public powers have supported it in a variety of ways, including partial funding of the credit cooperative system. The amounts loaned to agriculturists have been considerable and apparently contributed to the indebtedness of many among the large landowners. Credit was usually not supervised and normally the loans were in cash, not in goods. With such a system, it is logical that bank credit extended to small-scale peasants was restricted and occurred mainly through the cooperative part of the banking system.

In connection with the crisis years beginning around 1930, the government made great efforts to shore up indebted farm owners, to prevent numerous forced sales of farm real estate. The effect of these efforts was, among other things, to maintain the value of farm real estate, hence to prevent a mobilization of the land market which might have broken up the existing estate system.

3. Supplies

Before World War I, supplies to agriculture were small in volume and on the whole not organized. In the interwar period, with the increasing autarkic tendencies in Europe and Hungary's consequent difficulties in maintaining its agricultural exports, the government began to support and to organize increased supplies of several inputs to agriculture, among these improved seed varieties,

especially those of wheat which became widespread in the 1930s, and of threshing machines - wheat being both a mainstay (with livestock products) of the export economy and a principal enterprise of large-scale farmers. Thus some mechanisms for aiding agriculture were being built up, even if at a slow and halting pace.

4. Infrastructure

Modern Hungary is densely settled nearly everywhere and was relatively well supplied with railroads and principal highways early in this century. Feeder roads were not always fully developed, especially among the isolated farms (tanya) of the Alföld, but progress was gradually made.

Other facets of infrastructure buildup in which the government took an interest include the school system, health service, provision of drinking water, and rural electrification. As of 1939, about one-third of all communities (numbering some 3,300) in the country had electric mains.^{18/} Health service admittedly made slower progress, but the basic school system was fairly comprehensive if poorly funded. A program of providing improved water wells was started in 1932 and had by 1939 provided several hundred wells out of a total 8,200 deemed to be necessary.^{19/}

5. Crop procurement and marketing

Control of sales and markets was started in a comprehensive way in 1929, when an abundant harvest the year before and crisis conditions abroad and at home created difficulties for the exports.^{20/} The wheat farmers were the first to benefit, by an export bonus (boletta), but other relief was given producers of other commodities.

Grade standardizing of dairy products had started in 1925, and a law of 1931 made possible wide extension of State control of the quality of other agricultural commodities.

H. Peasant Associations and Power

1. Cooperatives and other associations

For a country with as many large estates as Hungary, farmer cooperation was well developed at an early date. Influence of the German and Austrian cooperative movements were felt stronger than elsewhere in eastern Europe, and hundreds of societies were founded already before the turn of the century.

The credit cooperatives approached a thousand societies, i.e., not far from one-third of the number of communities, already before 1914, with a membership of some 200,000 at that time and doubling until the 1930s, thus representing a substantial part of the independent peasantry.^{21/} Dairy cooperatives were also numerous already in 1900, and exceeded a thousand unions before the 1930s were over, with more than 100,000 members owning a quarter million cows, or more than one-fourth of the milk cows of the country.^{22/}

On the face of it, this might be an exception to the rule that farmer cooperation does not thrive in the presence of a rural aristocracy. But maybe the exception is seeming only, for cooperation in Hungary was unusually centralized and in many ways not only protected by the State but also supervised by its organs, close as these were to the ruling classes of the country. The credit cooperative movement was in a very high degree administered by the central union which in turn was protected by the State even to the extent of a modest endowment,^{23/} all of which made the movement more a part of the banking system than an independent peasant movement.

2. Political power.

Hungary before 1940 was not an autocratic state; its constitutional tradition (largely unwritten) accorded certain functions to a parliament. The rules about

voting were at times restrictive, but this did not prevent farmers from influencing elections and parliamentary politics. In the 1920s and 30s there were at times peasant parties of some consequence, but more often they made themselves heard through their representatives in a leading parliamentary party.

But even with this modicum of political freedom, Hungary was far from being a true democracy. The uneven distribution of wealth and income secured to the rich classes a predominant influence which could only be bolstered by the long historical tradition of an aristocratic society. The turbulent episode of Bela Kun's Communist regime in 1919 ended with a reaction against any leftist tendencies and this, with the overshadowing nationality questions, rendered Hungarian politics of the 20s and 30s a game of at best conditional democracy, before the Fascist elements took over during the war.

III. LAND REFORM PROGRAMS

A. Legislation

The Land Reform Act of 1920 (Act 36, Dec. 7) foresaw land acquisition by the Government, for the purpose of creating rural building sites and small agricultural holdings. Acquisitions could be by purchase (Government preemptive option on land coming up for sale) and by expropriation from large estates. In the latter case, only a specified fraction could be expropriated, except if the present owner had bought the estate recently, in which case the whole might be expropriated.

Act 11 of 1936 restricts the use of entail in agricultural land and foresees the conversion of most of the entailed land into freely negotiable property.

Act 18 of 1936 aimed at promoting land settlement and a better distribution of landed property by the creation of smallholdings, and at furthering home

ownership by the rural population. The terms of reference were so restrictive that application would perforce be of small consequence.

A 1939 amendment to the preceding Act widened the terms of reference so that larger areas might have been touched by the provisions.

The land reform law of 1945 is a Decree of March 18 of that year, on redistribution of farmland, which broke up the inherited land system. It did not, as in the USSR, nationalize all land or abolish the concept of private property in land, but it placed maximum limits on the amount of land an individual is allowed to own, detailed complete confiscation of land belonging to certain categories of owners (members of the Arrow Cross Party and the German Volksbund, as well as other "enemies of the people") and of any land in an estate exceeding 10,000 kat. hold. For expropriations reducing an estate to less than 10,000 kat. hold, from people other than those specified as enemies, compensation was to be paid.

Further efforts at reforming the land system in ways that would conform with the objectives of a Communist State were not directed at making individual holdings more equal than they had become by the land reform of 1945-47. Instead they aimed at creating and consolidating the "socialist system of land holding" in the forms of State farms and "Production cooperatives" (collective farms). The laws governing these processes have been changed several times. Two strata can be identified:

- a) the laws on "social property," and
- b) the model statutes for collective farms.

The rules about social property are part of the Civil Code (Section 2, Title 2 in the 1959 codification). The rules concerning land operated by collective farms have been modified in a new statute of 1968 which presumably will be integrated into the Civil Code.

The rules about property of the State are relatively simple, except for the cases where land belonging to the State is entrusted to collective farms.

Land used by collective farms is of several kinds. These farms may operate state owned land, given them in permanent usufruct free of charge; private-property land owned by members; and private-property land owned by non-members (absentee owners). The latter two categories might cause problems because in principle their land might be withdrawn from collective use, and ostensibly it was under this clause that a great many collective farms were dissolved in 1956. A recent comment maintains that the contract of individual landowners (members or absentee) with the collective farm is in fact permanent as much as that of the State in regard to its land held by collective farms.^{24/} In the 1968 revision, this problem was solved by stating a duty for absentee landowners to sell their land to the collective farm by which it is currently used, and for members to sell to the collective rather than withdraw the land from it.

The model statutes for collective farms are largely patterned on those from the USSR and are similar to those in other east European countries. There have been several changes over time. Originally four different "types" were recognized, from "lower" to "higher" degrees of cooperation (or collectivization). At present only two types are recognized, "production cooperatives" and "simple cooperatives," the latter being associations mainly of fruit and grape growers for whom pooling of land and work may be less essential or functional than it is deemed to be in other lines of production.

The production cooperatives (collective farms) are left relatively wide latitude for the internal organization of their affairs,^{25/} which gives the authorities a policy instrument for varying the degree of coercion or permissiveness which they may find expedient.

A special problem, from the viewpoint of Communist social organization, is in the contractual association between collective farms. Joint ventures often make sense, but if given too free a rein, this might encourage them to go into lines of production which central authorities want to reserve for the State. A decree of 1961 (No. 10/1961/VI./IV.30, Ministry of Agriculture) restricts such ventures to specified classes of enterprise judged to be auxiliary to the collective farms' main business.^{26/}

B. Institutional Arrangements.

In the 1920 reform, an independent land reform court was established to designate lands to be acquired and to determine the allotments to be made to beneficiaries. The latter were subject to a certain amount of supervision to ensure proper cultivation of the land.

The 1945-47 reform was to a large extent carried out by local committees appointed by the Communist Party, following the advancement of the Soviet troops. The decree of March 18, 1945, empowered these same local committees to act as arbiters in regard to claims as to injustices in the dispossession of individuals.

The State farms are administered by the Ministry of Agriculture. In the drive toward collectivization, local leadership was exercised by the local Communist Party organizations, acting on instructions from the center. Procedures and applications are under the supervision of the Ministry of Agriculture.

C. Program Objectives: Economic, social and political

Even in the 1920 reform there was no clear notion of the economic merits or demerits of small versus large farm holdings; in the late 1930s an official report refers to a vague notion of a balanced size structure of small, medium-sized and large holdings as being preferable.^{27/}

Then as later, the main motive for reform was social: to meet the existing land hunger and alleviate rural poverty while interfering as little as possible with the inherited social order.

The 1945 reform was on the surface a fulfillment of expectations among the peasantry, expectations which the part-reforms of 1920 and 1936-39 had kept alive but not satisfied. As a matter of long-term policy, this reform was intended, on the part of Soviet and Hungarian Communist politicians, as a way of preparing for a policy of collectivization to which the Communist party was pledged.^{28/} As a first step, to break the power of the old landowning class, this reform was deemed useful, but for the development of agricultural production as well as for evolving a socialist society, collectivization was thought of as the only correct way.

Part of the confiscated land was not distributed but organized as large State farms, or else retained as State property although left to collective farms to use.

D. Program Implementation and Enforcement

1. Redistribution of land ownership

The reform started in 1920 was carried out according to its limited scope, transferring about half a million hectares and creating several hundred thousand homesites and dwarf holdings. The law of 1936 was implemented to an extent which represents a small fraction of the reform activity under the 1920 law; and the 1939 amendment even less.

The 1945-47 land reform had in fact begun before the date of the decree. In a short time it changed the ownership of about a third of the country's farm land and eliminated nearly all holdings over 100 kat. hold, except of course those converted into State farms.

The objective of collectivizing the private farms was carried through more gradually, using various forms of coercion piecemeal here and there rather than in a single sweep in the whole country. The program was less than half achieved when part of it was undone during the 1956 uprising. After 1956, the program was taken up again, eventually with increased speed, and was in the main completed at the beginning of the 1960s.

2. Changes in tenancy systems

There was initially very little change in the incidence of tenant farming. The reforms of 1920 and 1936 had not addressed themselves to this question, only in the little-implemented 1939 law was the objective set to create tenant farms rather than ownership holdings. Immediately after the 1945-47 reform there still existed in Hungary about as much tenant farming as before, which was not a great deal.^{30/} Lease of agricultural land still occupies its traditional place in the 1959 Civil Code (its Chapter 38). As will be seen further below, this is more than just a dead letter of inherited law text, but rather a significant reality in recent years.

3. Colonization

There have been laws favoring colonization in Hungary since the late 19th century,^{31/} and the 1936 law tried to amplify its very limited scope by re-introducing the subject of colonization. Founding new settlements was of some importance in the territories severed from Hungary after World War I, and especially before 1900, but in modern Hungary and in recent decades the land has been so completely occupied, and since so long, that colonization could not possibly account for much progress.

4. Consolidation and enclosure

The subject of consolidating fragmented farm holdings has, generally speaking, been overrated in the literature, ever since the English enclosures of the 18th century. In modern Hungary the scope for such reforms was small, for two sets of reasons. For one thing, Hungarian agriculture was dominated by the very large and the very small farms, and land fragmentation is seldom much of a problem for either category; it is sometimes for medium-sized farms, but these did not play as much of a role in Hungary as in western Europe, for instance. At the same time, in the regions recolonized since the 18th century, the rectilinear land layout of the "military frontier" areas is so rational for most modern purposes that less change was required than in most European peasant areas.

Nonetheless, the subject was taken up in a statute issued in 1949, offering the services of the Ministry of Agriculture when the landowners so desired.^{32/} In view of the collectivization program, it is not likely that much came out of this departure.

5. Classification, identification and titling

As mentioned above, the inherited cadastre rendered this subject among the least problematic in the Hungarian situation. Even after the close of collectivization and the now much reduced significance of private land ownership, the cadastre is being maintained and further improved upon.^{33/}

E. Financial Aspects

1. Valuation procedures

In the cadastral system, land in Hungary is valued in an extinct and therefore fictitious currency, the "gold crown." Even in quite recent publications, one finds this valuation applied, and this includes State property and other lands which are effectively removed from the possibility of commercial circulation.

Given the nearly static nature of land settlement and occupancy of cultivable land, the gold-crown valuation may well serve as a basis for establishing value in the day's currency, and valuation was therefore among the lesser problems facing land reform, in 1920 and 1936 as in 1945.

2. Program financing

a) - b) Landowner compensation and peasant repayments

The program started under the 1920 law foresaw full compensation to landowners, whether the land was acquired by preemptive purchase or expropriation. Up to 1929, beneficiaries were supposed to pay the purchase price directly to the former owners; up to that time, only a minor portion of the prices had actually been paid. From 1929 onward, a special credit institution was created to act as intermediary. The depression created difficulties of repayment, and in 1937 the payments were reduced to one-third of their original amounts.

The 1936 law also foresaw easier terms of payment for beneficiaries who were farm laborers who had become unemployed because the estate on which they worked had been subdivided by the land reform.

The 1945 reform foresaw outright confiscation for some categories of land (see above) and compensation to the former owners in other cases. This writer discovered no information about payments for land under the 1945 law. With runaway inflation in 1945 and 1946, the issue may have been of slight interest.

c) Government expenditures

Under the laws of 1920 and 1936, the Government should have had mainly administrative costs but remained responsible. When payments by beneficiaries had to be reduced in the 1930s, the Government shouldered the financial burden.

In 1945, there cannot have been great financial outlays on the part of the State. Henceforth the land taken over as State property would often create financial liabilities which rest with the State. The collective farms, by contrast, are

self-financing organizations yielding tax revenue and commodity deliveries at (often low) command prices. To what extent they receive any net subsidies in connection with State deliveries of production requisites is difficult to disentangle, as is also the financing of fixed investments.

F. Supplementary Services

Those for the interwar period have been treated above, under the pre-reform period.

Under Communism, information, credit, supplies, and most procurement and marketing are centralized, while infrastructure is to a large extent at the charge of the local collective farm.

G. Mobilization of the Peasantry

The mechanism by which recipients of land reform grants were selected under the 1920 law does not appear clearly from available literature. The recipients of homesites and dwarf holdings amounted to several hundred thousand, in fact a large part of the rural workers benefited if in a small way, so the demand for allotments must have been brisk. It is reported, among other things, that most recipients of homesites built their new houses themselves which testifies not only to primitive living conditions but also to active participation. Politically, these people found some expression in the cooperative movement such as it was, and in the peasant political parties.

In 1945, "mobilization" was turbulent and dominated by the movements of Soviet troops.

Shortly after the war, the peasants' party won the political election but was unable to consolidate its political power in the face of Soviet demands for a strong position to the Communist Party.

Collectivization also meant some kind of mobilization of local peasants, but may in fact have required more of a silencing of sentiment; there is no doubt that collectivization was long resisted in most Hungarian localities.

H. The Politics of Implementation

The 1920 law was probably applied in a low key, because of resistance and propaganda on the part of the large landowners.

In 1945, the Communists' purpose of removing the old class of large landowners happened, for the time being, to require the same policy as that demanded by the land hungry small peasantry and the landless farm workers.

The politics of collectivization has evidently been an uphill fight for the authorities. The setback of 1956 was a clear reminder of peasant sentiment, and this may have influenced some of the temporizing which is cloaked under the official data on collectivization achievements (see further below):

IV. EFFECTS OF THE LAND REFORM

A. On Land Tenure Structure

The results of the smallholding reform started in 1920 have been briefly touched upon above. A recent official source^{34/} gives the following figures for land transfers from 1920 through 1929:

Land acquired for land reform purposes, 640,000 hectares, or 6.9% of the country's area:

Land distributed to beneficiaries, 603,000 hectares.

Number of beneficiaries: a) Building lots, 260,000,

b) Dwarf-sized and small agricultural holdings, 424,000.

In terms of cropland, the 1920-29 reform transferred over 10% of the country total.

The reform of 1945-47^{35/} sequestered somewhat over 3.2 million hectares, or close to one-third of the total area of Hungary. Ninety-six percent of all rural communities were touched by the measures. Only about one-tenth of the area was confiscated, the rest was redeemed. Of the area sequestered, 1.88 million hectares were distributed to 642,000 individual beneficiaries, of which 110,000 were house servants, 261,000 agricultural workers, 214,000 holders of dwarf farms, 33,000 holders of small farms, and the rest industrial workers and others.

In consequence of the two reforms, the numbers of farm holdings changed as follows:^{36/}

	Auxiliary holdings, 0.25 - 1 kat.hold.	Individual farm holdings, over 1 kat. hold	(thousands, 000's omitted)
1918, Dec. 31	151	576	
1935, Feb. 28	214	1,005	
1949, Dec. 31	219	1,441	

Comparable size distributions of holding numbers and holding areas in 1935 and 1949 are given in Table 9.

Table 9. Farm holdings and holding agricultural areas, by size of holding, 1935 and 1949 (private holdings only in 1949).
Data in thousands of holdings and thousands of hectares, 000's omitted.

Size, kat.hold. of total area	Numbers of holdings		Agricultural land	
	1935	1949	1935	1949
0.25-1	214	219	82	93
1-5	557	665	766	1,180
5-10	204	458	815	1,932
10-20	143	240	1,115	1,888
Over 20	101	78	4,743	1,413
Total	1,219	1,660	7,559	6,535

Sources: Census of Agriculture 1935, and Mezőgazdasági adattár 1965, 1 pp. 9-11.

The crude numbers of 1918 and 1935 give some notion as to how many more farm workers had become smallholders through the reform started in 1920. The data in Table 9 show that through the 1945-47 reform, all size classes below 20 kat. hold (= 11.5 ha) had increased in both number and agricultural area. The decline of the total holding agricultural area reflects the transfer to State property of such land.

Some features of the history of land socialization are shown in Table 10 (numbers of State farms, cooperative farms, etc.), and in Table 11 on the use of land within these various categories of farms.

Table 10. Categories of socialist farms, selected years (December 31 in each case)

Year	State farms	State forestry farms	Machine stations	Cooperative farms	Cooperating farm groups	Fishing co-ops	Simple co-ops
1949	375	72	361	2,149	36	40	
1955	472	35	312	3,759	1,057	22	1,113
1956	466	35	287	1,617	472	23	1,531
1960	333	32	243	4,507	69	21	1,576
1964	211	29	198	3,413	254	22	1,453

The decline in the State farm system in recent years is evident and the reason is likely the same as in the USSR: the difficulty to avoid financial losses in this type of operation. The temporary decline in the "cooperative" sector in connection with the 1956 uprising is evident in the numbers in Table 10 but has become masked in the area data in Table 11.

The grouping of area data in Table 11 serves to show how much land is in fact under cultivation by private households in one way or another: not only in the remaining individual farm holdings (about 140,000 in 1968), but also in the household plots on the State farms ("auxiliary") and on the cooperative farms,

and also in the "other" co-ops which are merely cooperative groups of individual farmers. The total of these four categories shown in the last column still exceeds 20 percent of Hungary's agricultural land. From the detail of the data in the sources one can also see that these various private categories hold a much larger share in the more intensive forms of land use, above all land in vegetables and in vineyards.

Table 11. Agricultural land, selected years, by sectors and farm categories. Data in thousand hectares, 000's omitted.

Year	1 State sector	2 Co-op sector	2a Co-op joint culti- vation	2b Family cultiva- tion on co-ops	2c "Other" co-ops	3 Auxiliary hold- ings	4 Sub- total 1+2+3 "Social- list sector"	5 Indi- vidual holdings	6 Total	7 Sub-total 2b+2c+3+5 under indi- vidual cul- tivation
1949	814	54	44	--	10	124	992	6,414	7,406	6,540
1950	995	286	246	17	23	122	1,403	5,972	7,376	6,134
1955	1,560	1,142	877	78	187	237	2,933	4,307	7,246	4,572
1956	1,568	1,464	1,204	115	145	219	3,251	3,963	7,214	4,442
1960	1,379	3,955	3,449	434	22	220	5,555	1,587	7,141	2,093
1966	1,103	5,385	4,430	666	289	6,928	1,395
1968	1,071	5,393	4,427	678	288	252	6,716	..	6,902	1,405

Sources: Mezőgazdasági adattár 1965, 1, p. 14; Mezőgazdasági adatok 1968, No. 4, p. 8; Statistical Yearbook 1967, p. 134.

The ways in which individual cultivation has survived show some interesting regional features. To begin with, the incidence of land reform in 1945-47 was not entirely the same, as shown by these figures^{37/} (in thousand hectares, 000's omitted):

	Total reform area	Thereof transferred to individual beneficiaries
Dunántul	1,486	786
Alföld	1,236	851
Eszak	500	238
Total	3,222	1,875

Thus the Alföld was proportionately less touched by the land sequestrations than the other two main parts, but the proportion was partly restored in the figures for land transferred to individual beneficiaries - this because the Alföld has less forest and proportionately more cropland and pasture than the other regions. But the Alföld also had proportionately more holdings of moderate size before the reform, and that accounts for some of the difference. The same difference is still seen in data for cropland by sectors in Table 12.

Table 12. Cropland, in 1964, by sectors and regions. Data in thousand hectares, 000's omitted.

	Total	State	Co-op joint ^{a/}	All indi- vidual ^{b/}	Individual as % of total
Dunántul	2,055	344	1,310	401	19.5
Alföld	2,876	374	1,779	723	25.1
Eszak	719	106	441	172	24.2
Total	5,650	824	3,530	1,296	22.9

^{a/} Corresponds with the concept in col. 2a in Table 11.

^{b/} Same concept as in col. 7 of Table 11.

Source: Mezőgazdasági adattár, 1, pp. 117-121.

The larger occurrence of individual cultivation in the Alföld is above all at hand in the so-called "simple" or "other" co-operatives, mainly groups of vineyard owners. How this concession came about is made clear by the writers about the tanya, the characteristic isolated farmsteads of the Alföld, above all in its southwesterly parts.^{38/} The tanya invites individual husbandry, above all as regards its vineyards and other intensively-used land, which is often grouped around the farmstead, as can be seen on some excellent air photos in the article just quoted. In what ways such land could be collectivized appears altogether mysterious, and the writer of the article just quoted, despite formal homage to land socialism, emphasizes that regrouping of settlement and land use is expensive and must perforce take time. Thus previous practices have to some extent forced the hand of modern policy makers. The village settlement in the Dunantul did not raise similar constraints.

In this connection we should also note the sectoral distribution of livestock, which is another factor modifying the relative size of agriculture's tenure sectors. In 1935 and 1942, more than half of all the cattle and pigs were in holdings under 20 kat. hold.^{39/} As late as in 1964, the household plots and other private holdings had nearly half the cattle and over half the pigs,^{40/} while the bulk of all poultry was on private holdings.^{41/} Thus individual production still held important assets in Hungarian agriculture in the middle and late sixties, above all in the most labor intensive enterprises, despite the high rate of socialization.

But this is not all. Inside the State and collective farms, land is sometimes allotted to individuals and groups to cultivate at their responsibility, as in the "zven'ia" in the USSR.^{42/} In other places again, land belonging to

State farms or to the collective land fund of cooperative farms is rented outright, usually by sharecropping and mostly to members but sometimes even to transient nonmembers.^{43/} Both systems are said to be widely used in row crops and other intensive crop enterprises as well as in animal husbandry. Only the small grains are said to be consistently grown under the large-scale scheme of the State and collective farms.

The extent to which these arrangements are used cannot be ascertained for lack of data in official sources. The indications about them serve to remind one of the vitality of individual small-scale cultivation under conditions as they exist in modern Hungary in recent time.

B. On Production and Productivity

Some prewar data were discussed under the heading of pre-reform period. At that time, with few external inputs and an obviously quite large labor surplus, output per area unit was what counted most, and the data show that, amid a generally static situation, smallholdings were the most productive.

In the postwar period, the whole of Hungary's agriculture has been under the influence of, first, the smallholding reform and second, the policy of forced collectivization. Productivity can then be discussed only for agriculture as a whole; separate accounting for the sectors is hardly feasible with the data at hand, and would in any event not be free of political bias when pressures and counterpressures for and against sector change have been alive all the time.

Table 13 shows indexes for gross and net product of Hungarian agriculture for selected periods.

Table 13. Indexes of agricultural production, 1934-38 = 100.

Gross product:	1950/54	1955/59	1960/64	1965/67
1. Total agriculture	97	114	124	136
2. Crop production, incl. forestry	91	104	109	122
3. Crop production, excl. forestry	88	97	101	..
4. Animal husbandry	98	118	132	145
Net product:				
5. Total agriculture	94	105	101	97
6. Crop production, incl. forestry	91	99	95	..
7. Crop production, excl. forestry	87	91	87	..
8. Animal husbandry	99	116	111	..

Sources: Mezőgazdasági adattár 2, p. 399; Mezőgazdasági adatok 4, 1968, p. 3.

The gross indices are gross not only of external inputs but also of intra-agricultural transfers. Thus the "total" line includes double counting for the use of crops as stockfeed; since such use has been increasing (even relatively) over the period, the total index is to some extent inflated by this. The two lines for crop production show a higher index when forestry is included than when it is excluded; evidently, forestry has been expanding, as has the forested area. The line for gross product of all crops excluding forestry is close to being an index of composite (price weighted) crop yields. Thus there was virtually no increase in crop yields until around 1960. With some reduction in the cropland acreage, a few percentage points would have to be added for an index of per-area-unit yield. Further, the details show that in 1963 and 1964, the index rose to

106 and 109, and in even later years by another 5-6 points to about 115; accounting for cropland contraction, the per-area-unit yield may now be some 20 percent above that of the 1930s. This modest increase has been achieved in the last half dozen years while the use of fertilizers rose from 29 kg. in 1960 to 91 kg. (pure content) per hectare in 1967.^{44/} By that kind of fertilizer increase, similar or better production increments would have been obtainable under any farming system.

Animal production increased more than crop production, most conspicuously so in gross terms. There are two major explanatory factors. One is in the dwindling of the numbers of horses, from 800-900 thousand in the 1930s to about 275 thousand 1967-68^{45/}, thus by about 600 thousand units, corresponding to about 15 percent of the total animal stock of the 1930s. The saving in feed crop consumption may be of the magnitude of the output from 9 percent of the cropland.

The other factor that helped increase animal production is in the smaller volume and changed composition of agricultural exports in recent years as compared to the 1930s. Before 1940, wheat was a leading article, with meat and meat animals, in Hungary's exports. In recent years, the country has had substantial net imports of grains (feed grains), while agricultural exports have been dominated by horticultural products and animal products - thus the exports now consist mainly of products from intensive farm enterprises. With the switch from exports to imports of grains, the feed base in the country could be increased without any appreciable change in the yield levels on the cropland.

The lines for net product are net of both external inputs and of interfarm transfers. Here, crop production never seems to get back up on the prewar level, and net product of animal husbandry rises much less than in the gross index. Total agriculture does not rise at all.

Hence, increases in net product per worker has so far depended entirely on the reduction in the farm labor force, from 2.2 million around 1940 to 1.5 million recently. The decrease is by 50 rather than by 30 percent, however, because of the changed sex proportion (the male part of the work force, which is statistically the better established, is now half of its peak number).

The reasons for the sluggishness in output are not entirely clear. A great deal of competent specialist work has been spent on overcoming the country's natural handicaps for agriculture. It is conspicuous that the real increase in crop output in the mid and late 1960s was so directly connected with the increase in fertilizer use, and it is puzzling why this type of improvement should have been started at so late a period, when other and more expensive lines of modernization were entered upon earlier and at greater costs.

The lack of any increase in net product is the consequence both of the sluggishness in growth of output and the high level of external costs. Easiest to get are the data on investments, see Table 14.

These gross investments represent, in recent years, four percent or more of Hungary's national income (Communist concept - without "nonproductive" services, at most 20 percent of the United Nations concept) and from 12 to 20 percent of all investments of the country. By no stretch of reasoning can it be said that Hungarian agriculture has been starved of investments.

But these investment outlays are not directly considered in the computing of the difference between gross and net product of agriculture. For this we need data on current annual inputs of external factors, plus an estimate of depreciation (the latter is, as usual in Communist countries, grossly underestimated in data published so far).

Table 14. Investments in agriculture, selected years. Data in million forint.

Year	Buildings	Machines	Other	Total
1950	312	411	228	951
1955	967	817	884	2,668
1957	392	277	598	1,267
1959	2,527	2,411	816	5,754
1961	2,382	2,197	1,221	7,113
1963	3,422	3,801	1,610	8,842
1967 ^{a/}	3,555	2,520	2,084	8,716

a/ Socialist sector only. In 1964, the difference against the total was about 10 percent.

Sources: Mezőgazdasági adattár, 2, p. 403; Mezőgazdasági adatok 4, 1968, p. 114; or Statistical Yearbook 1967, p. 45.

Current production outlays are nowhere shown in routine tabulations. There are indications in some input-output tables for a few years.^{46/} The data are not necessarily comparable from one table to another, or with current national accounts data published elsewhere. To circumvent this difficulty, only percentages are shown here, each set of percentages being derived entirely from data in one and the same document.

Current external production inputs in agriculture, as percent of:

	Agriculture's gross product (net output)	National income
1957	8	3
1959	16	5
1961	22	6

Data available from the 1963 tables show essentially similar proportions as those for 1959 and 1961.

These rates of current annual external inputs are very high. When gross investment outlays (rather than the spurious depreciation charges) are added, it will be seen that Hungary's agriculture absorbs something in the vicinity of 10 percent of the country's national product for its external inputs. The magnitude is confirmed by a recent article^{47/} which says that agriculture now buys goods and services for 20 billion forints a year, which is about 10 percent of the national income in 1967.

This magnitude of external costs is exceptionally high - higher even than in the USSR which otherwise holds a leading position for high-cost agriculture. In market-economy countries, a magnitude of 3 percent of national income is normal. But still, the lack of increase in net product shown in Table 13 is not the whole story; if capital costs had been properly accounted for, the net-product index would actually be declining.

An outcome of this kind has even so been registered recently, when it was found that the State farms' net-product index had declined because of high external costs.^{48/}

C. On Rural Employment and Underemployment

The farm labor force, which varied but slightly during the pre-1940 period, stayed near its old level until around 1960, then fell abruptly but seems to have remained rather stable in recent years, as seen from the following figures^{49/} (thousands, 000's omitted):

	Men	Women	Total	Total as percent of total active population
1960	1,223	702	1,925	41
1966	902	596	1,498	31
1967	894	600	1,494	31
1968	910	578	1,488	31

The same source, in a different context, gives slightly different totals with a significantly different sex composition:^{50/}

1966	702	824	1,526
1967	699	783	1,482

In connection with these latter data, indications are also given as to the average annual rates of employment in agricultural work, as follows (data in 10-hour days per year):

	Men	Women	Total	Percent of these levels of employment that belonged to the collective part of the farm work		
				Men	Women	Total
1966	188	69	133	69.0	18.5	41.7
1967	191	80	143	72.9	21.5	45.9

From these elements one may conclude that the size of the total job to do in Hungarian agriculture in those years was 200 or 215 million labor days (1966 and 1967 respectively), and that less than half of this was in "collective" jobs and the balance in the various types of individual or household production - mainly in labor intensive enterprises as we have seen.

Thus, in comparison with the computations quoted above from the 1930s and 1940s, the size of the job in agriculture has fallen as much as the labor force, and there is still a very large percentage of underemployment. The collective sector has failed the peasantry by premature mechanization, without compensating rise in output. Thus the remaining Hungarian peasants are still dependent mainly on their individual production for employment and livelihood. There has been an increase in value product in animal husbandry and, one may surmise from production statistics, in labor intensive crop enterprises, but the highly mechanized extensive field crops are likely to have a falling rate of value added.

This relative switch in the direction of dominant labor intensive enterprises, not yet mechanized to as high a degree as the extensive field crop enterprises, should have led to a somewhat more even seasonal flow of the work to be done. Such may well be the case in comparison with previous periods, but there was still, in 1966-67, a strong seasonal variation, with the slack months of the winter requiring less than half of the amount of labor required in the peak summer month (July).^{51/}

It is reported that the remaining labor force has larger components of women and old or very young workers than before, able-bodied men being the first to leave for better-paying jobs elsewhere. From this one may expect continued reduction in farm labor force for still some time to come. In a full-fledged industrial state, as Hungary begins to be, such accelerating exodus would in fact be to expect. In the pre-reform period, the density of people on the land was quite high (the worker-to-land ratio was of the order of 3 hectares per worker) and it still is with only some 5 hectares of agricultural land per member of the farm labor force. Calculations made some time ago showed that, according to the labor-efficiency norms prevalent in the United States in the late 1940s, Hungarian agriculture would employ at most 300,000 workers full time.^{52/} By standards attainable in the foreseeable future, this figure could well be reduced to half. Whenever that happens, the very large size of Hungarian State and collective farms (in hectarage - often several thousand hectares each, some over 10,000 hectares) will be matched by relatively small work crews on each, and the same problem about "collectivity" will come up as in the USSR.

But there would normally be still some way to go before all the labor that would be in excess under high-level mechanization can be employed elsewhere

in the economy. In the meantime, the farm population's employment and earning capacity are impaired by the early achievement of stages in mechanization which could rationally have waited until later.

D. On Income Distribution

Communist society does not claim to be entirely egalitarian, and the earnings of individual farm workers may still depend in part on his own skill and industry. On the whole, there can be no doubt that differences in earnings within agriculture are smaller than in the pre-reform period.

The same is allegedly true of the urban sectors, as far as the data can be trusted to reflect the real situation. A recent inquiry reported a dispersion of family incomes which was not much greater than the dispersion of family size, hence per-capita income should be very close to being equal.^{53/}

The urban-rural disparity is still wide, in any event. From national accounts data on value added by industry one would surmise a disparity ratio (rural to urban, per-capita income levels) of 0.6:1, but there are many other factors that affect the levels of disposable income, and in reality the disparity is likely to be even wider.

E. On Services and Supplies

Agricultural services have been gradually improving throughout the modern history of Hungary, and none of this can be specifically linked with any of the land reforms. Within the existing political constraints, the service system for Hungarian agriculture is likely to be fully on the level of its tasks.

Supplies of essential inputs are partly a different matter. If they were slow in coming forth in the pre-reform period and through the 1930s, this probably was due more to the input-output relations in a market economy than to any advantage or disadvantage of the land system; and again, all of this was not very closely related to the land reform departures. Under Communism, supplies

are centrally administered and the farm sector gets what it is allotted, not what its spokesmen might want if they could have their preferences. This is why Hungarian agriculture has become over-supplied with some inputs, and generally over-capitalized especially in the State sector and the collective sector of the collective farms, but is at the same time relatively starved of some essential inputs, such as fertilizers at least until not very many years ago.

F. On Peasant Participation in Decisions

The position of the peasants in the decision-making processes - co-operative and political - in prewar Hungary was touched on above, under the pre-reform period. Whether present State paternalism is tighter or lighter than the old-fashioned squire-dominated paternalism of old, is hard for an outsider to gauge. On paper, there is a good deal of "co-operative democracy," but how effective this turns out in reality must depend on imponderables of many local situations. It is clear enough that collectivization was not popular and that it somehow was enforced against the will of most among the peasantry. The many persistent concessions to individual husbandry indicate that the tension between official policy and peasant wishes does not always run one way, but how far this happens along the schemas for decision-making on collective farms, would be a study of its own.

G. On Character of Rural Society

The smallholding reform of the 1920s did little to change the basic character of Hungarian rural society which continued to be dominated by the large landowners. In a sense, their authority was further strengthened when so many of the farm laborers became smallholders and hence firmly settled in their community.

The smallholding reform of 1945-47 certainly meant a clean break with the past system of large private estates; the entire social stratification was completely revamped.

State farm system and collectivization again introduced a new kind of paternalism: that of the State instead of that of the magnate class. The effects are in many ways different, but if anything, the cleavage between rulers and ruled is even more accentuated.

H. Broader Effects on the Economy, Society and Polity

Both politically and economically, the smallholding reform of 1920-29 was too weak to cause any profound changes. Economically, the small-scale production system meant no drawback, but whatever its positive merits, the reform was too little comprehensive to affect the overall situation.

The events from 1945 and onward have led to a new authoritarian polity, and a new class of party bureaucracy. The legal and administrative setup is closely similar to that in other Communist countries in Europe, but the application in recent years has been marked by more latitude for individual action than in most of them.

The effect on the economic development of agriculture is complex and mainly negative. Sluggish growth in output has been accompanied by a recently very high level of external costs, making Hungarian agriculture one of the most expensive in the world on that level of industrialization and use of capital. Domestic food needs are met, but at real costs which cannot but have distortive effects on other facets of economic development.

V. CRITIQUE AND EVALUATION

The reform begun in 1920 aimed at alleviating rural poverty without any radical change in the inherited property distribution. By protecting the interests of the large landowners, this reform missed its central objective which was to alleviate poverty. Most of the new holdings were too small to live on, yet too large to abandon lightheartedly. Thus a large part of the rural proletariat

was tied to their rural homes and were made available as seasonal workers to the large estates; the latter really got a more secure existence in this way.

The 1945-47 reform achieved the above mentioned objectives belatedly, but in a situation where future mechanization and rural exodus were a generation closer than they had been in 1920. Yet by disregarding the intrinsic merits of small-scale peasant production, even in a semi-industrialized economy, the Communist regime undermined the existing possibilities of boosting farm production at low social cost and sacrificed unnecessarily large amounts of scarce resources for premature mechanization. The sizes of most State and many collective farms are in fact exaggerated even when the future is kept in mind: many of them belong in size brackets which in highly mechanized situations display tendencies toward decreasing returns to scale. In the situations of the 1940s, 1950s, and even the 1960s, these farm sizes are disproportionate to the farm tasks to be handled.

It is not entirely clear whether the Communist leaders understood the fallacies of their own economic reasoning. If they did, they may still have wanted to pursue forced collectivization for reasons other than those of economic production: the socio-political objectives of controlling the population and of molding it to the image of Communist ideology could have seemed important enough to pursue even though this would be at the cost of some economic sacrifice.

But there is no reason to doubt that the authorities have been subjectively convinced of the superior advantage of large-scale production also in agriculture. Reasoning to this effect is repeated with great frequency in recent Hungarian literature, and draws arguments not only from Soviet experience (specious as

that may be), but also the "successes" of large-scale capitalist agriculture and of farmer cooperation in pre-1940 Hungary are advanced in support of the present policy of very large farm management units.^{5/} Thus the propaganda of the traditional large landowners, fallacious as it was, now comes in handy for their successors in the landowning and land-controlling Communist State.

A radical smallholding reform, begun early in the economic development of Hungary could have created a quite different scene. The best time would have been before 1914, but also in the 1920s it was by no means too late from the standpoint of economic development. Even in the 1940s, a radical reform leaving the peasantry the quiet of a dependable situation could have brought the kind of prosperity associated with west European family farms systems. The case of Communist Hungary is particularly perplexing by the way in which the same fallacious arguments have been perpetuated from one régime to another one.

NOTES

- 1/ On agricultural regions and related topics, see M. Pécsi and B. Sárfałvi, The geography of Hungary, Budapest 1964; several articles in B. Sárfałvi (ed.), Research problems in Hungarian applied geography, Budapest 1969. See also I. Asztalos et alii, Geographical types of Hungarian agriculture, Budapest 1966.
- 2/ See E. Lettrich, "The Hungarian 'tanya' system: History and present-day problems," in Research problems in Hungarian applied geography, ed. B. Sárfałvi, Budapest 1969, pp. 151-168.
- 3/ See, e.g., Conditions de la propriété bâtie et foncière, Budapest 1907 (Publications statistiques hongroises, N.S. Vol. 18).
- 4/ Annuaire statistique Hongrois, N.C. 47, 1939, p. 68.
- 5/ Ibid., p. 69.
- 6/ A korlátolt forgalmú birtokok kimutatása és Magyarország területének művelési ágak szerint megoszlása. Budapest 1893.
- 7/ Statistical Yearbook 1967, p. 139 (data for 1960-67), Mezőgazdasági adattár, 1, p. 655 (1930-64).
- 8/ See, e.g., H. Demelius, Österreichisches Grundbuchsrecht, Wien 1948.
- 9/ Some map examples in E. Petri. "The collectivization of agriculture and the tanya system," in Research Problems in Hungarian Applied Geography, ed. B. Sárfałvi, Budapest 1969, pp. 175 sq. An air photo is shown in Pécsi and Sárfałvi, op. cit., p. 94.
- 10/ Thus according to the per-capita food supply figures in Mezőgazdasági adattár, 2, pp. 410 sq.

- 11/ Annuaire statistique Hongrois, N.C. 47, 1939, p. 75, and several earlier issues of the same publication.
- 12/ Mezőgazdasági adattár 2, p. 112
- 13/ Other similar data are available in earlier years of the same publication.
- 14/ Kulin, S.V., and L.V. Pataky, "The economic situation of peasant farms in Hungary during the period 1929 to 1938," in Monthly Bulletin of Agricultural Economics and Sociology (Rome, IIA - reprint from International Review of Agriculture) No. 4, April 1941 (year 32).
- 15/ F. Dovring, Land and Labor in Europe, 3 rev. ed., 1965, pp. 92, 101, 446 sq.
- 16/ See *ibid.*, p. 447, and literature quoted there.
- 17/ For the older stages, see G. de Ladik, Aperçu de la législation concernant l'administration de l'agriculture hongroise, Budapest 1910, pp. 9-26. For later years, and especially the interwar period, see European Conference on Rural Life, 27, Hungary (monograph drawn up by the Government), Geneva 1940 (League of Nations) pp. 34-37.
- 18/ European Conference on Rural Life, 27, Hungary, *op. cit.*, p. 29.
- 19/ *Ibid.*, p. 28.
- 20/ *Ibid.*, pp. 59 sq.
- 21/ F. Dovring, Land and Labor in Europe in the Twentieth Century, 3 rev. ed., The Hague 1965, pp. 213-14.
- 22/ *Ibid.*, pp. 220 sq.; Annuaire statistique Hongroise 1939, p. 88.
- 23/ G. de Ladik, *op. cit.*, pp. 15 sqq.
- 24/ I. Seres. "K. voprosu ob osnove prava sobstvennosti i ustoičivosti obshchego zemlepol'zovaniia proizvodstvennykh kooperativov," Acta Juridica (Budapest) 8:3/4, 1966, pp. 367-389 (summaries in French and German: Duration and security in the cooperative farms' use of private land).

- 25/ Thus I. Molnar, "Oplata truda v proizvodstvennykh kooperativakh," Acta Juridica 8:1/2, 1966, pp. 91-113 (summaries in English and German: payment for work in the cooperatives), and I. Sárándi, "Die Verträge über Produktion und Verwertung landwirtschaftlicher Erzeugnisse der Produktionsgenossenschaften," Acta Juridica 5, 1963, pp. 187-222.
- 26/ Domé, Maria, "Simple associations and joint ventures of farming cooperatives in Hungary," Hungarian Law Review 1963:1, pp. 5-12.
- 27/ European Conference on Rural Life, 27. Hungary, op. cit., p. 54.
- 28/ Thus A. Sandor, Land Reform in Hungary, Budapest 1947. On the tendencies of this document, see Karin Dovring, "Land Reform as a Propaganda Theme," in Dovring, Land and Labor in Europe in the Twentieth Century, 3 rev. ed., The Hague 1965, pp. 330-332, 363-375.
- 29/ E. Redei, "La nouvelle structure sociale de la population hongroise," Problèmes économiques No. 188, August 7, 1951 (from an article in Társadalmi szemle), pp. 12-14.
- 30/ 1949 census data on tenure in Az 1949 évi népszámlálás. 2. Mezőgazdasági eredmények. Budapest 1949; cf. Report on the 1950 World Census of Agriculture, Vol. 1, Census results by countries, Hungary. Rome 1955 (FAO of the United Nations).
- 31/ G. de Ladik, op. cit., pp. 165-169.
- 32/ "Le remembrement des terres en Hongrie," Problèmes économiques 97, November 9, 1949, with text of the decree of August 30, 1949.
- 33/ E. Niszalovsky, review of Gy. Kampis, Telekönyvi jog (Law of Land register), Budapest 1963, in Acta Juridica 6:3/4, 1964, pp. 399-402.
- 34/ Mezőgazdasági adattár, 1, p. 45.

- 35/ Ibid., 1, p. 45 sq.
- 36/ Ibid., 1, p. 8.
- 37/ Ibid., 1, p. 82.
- 38/ Thus E. Petri, op. cit.
- 39/ Mezőgazdasági adattár, 2, p. 137.
- 40/ Ibid., 2, p. 138.
- 41/ Ibid., 2, p. 141.
- 42/ F.E. Dohrs, "Incentives in Communist agriculture: The Hungarian models," in Slavic Review 27:1, March 1968, pp. 24-29. On the Soviet zven'ia, see F. Doving, "Soviet farm mechanization in perspective," Slavic Review 25:2, June 1966, pp. 287-302.
- 43/ Dohrs, op. cit., pp. 29-33.
- 44/ Statistical Yearbook 1967, p. 139.
- 45/ Mezőgazdasági adattár, 2, p. 134; Statistical Yearbook 1967, p. 140.
- 46/ Tables for 1957, with full detail of agriculture's internal transfers but only summary data for other industries are contained (as long fold-out tables) in Statisztikai szemle, 1962: the 1959 table, published several times, e.g. in article by Aladár Mód in Statisztikai szemle 46:7, July 1968, pp. 683-699 (table between pp. 688 and 689); some 1961 data in A. Rácz, article in Statisztikai szemle 42:6, June 1964, pp. 571-591 (Table pp. 576-77); some 1963 data in A. Csepinsky, article in Statisztikai szemle 46:6, June 1968, pp. 606-627.
- 47/ I. Gergely, "Up-to-date agriculture is everybody's concern," Hungarian Agricultural Review 1969:3, p. 3.

- 48/ Thus L. Bethlendi, article in Statisztikai szemle 47:6. June 1960, pp. 576-580.
- 49/ Mezőgazdasági adatok, 4, 1968, p. 21.
- 50/ Ibid., p. 138.
- 51/ Ibid., p. 123.
- 52/ Doring, Land and Labor in Europe. 3 rev. ed., pp. 95, 101.
- 53/ Ö. Eltető and E. Frigyes, "New income inequality measures as efficient tools for causal analysis and planning," *Econometrica* 36:2, pp. 383-396.
- 54/ Thus J. Bak, *Igazgatás a mezőgazdasági termelészövetségben*, Budapest 1965. Ch. 3, pp. 63-147.
- 55/ Ibid., pp. 11 sqq.

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