

REGIONAL FLUCTUATIONS IN RUMANIAN AGRICULTURE:  
A CASE STUDY OF GRAIN PRODUCTION, 1956-1966

The essential distinctiveness of the economic geography of Eastern Europe has always depended upon the emphasis given to the primary sector of production, that is upon extractive industry (particularly the production of fuel and minerals), forestry and above all agriculture. When viewed against the background of the past three or four generations, therefore, despite local differences in political organisation and a varied physical environment, these countries have much in common, not least their general position in the so-called «famine fringe» of Europe. At a local or regional level the prime factors of physical geography have been strongly felt, yet on a wider scale the behavioural context has been all important. Even at the present time the distinguishing features of Eastern Europe's agricultural system derive not only from the key principles of post-1945 government policy and the attempted application of socialist theory but also from the relics of deeply-rooted subsistence peasant farming<sup>1</sup>.

This is not to deny that substantial progress has not been made during the past twenty-five years. As far as Rumania is concerned, in terms of million lei foreign currency, her exports of foodstuffs have increased from 180.7 in 1950 to 1,243.3 in 1968, the contribution of this commodity group to the total value of exports remaining fairly stable at about 14%, though during this period the value of all exports increased by over seven times from 1,274.2 to 8,811.4 million lei<sup>2</sup>. The level of foodstuffs imported has also followed a persistent upward trend but represents only 2.5% to 3% of total imports by value<sup>3</sup>, so that there has been in recent years a positive net balance in foreign trade in food of between 800 and 1,000 million lei, providing a major contribution to the Rumanian economy. The purpose of this paper is to examine the foundations of this achievement and to highlight regional trends in the grain sector over a ten-year period. The decade 1956-1966 was chosen, partly in the context of a broader analysis of East European agriculture conducted by the writer some years ago, and partly because it stands astride the Rumanian collectivisation campaign which was declared to have been completed in the spring of 1962.

1. G. W. Hoffman, «The Problem of the Underdeveloped Regions in southeast Europe: a comparative analysis of Rumania, Yugoslavia, and Greece», *A.A.A.G.*, 57, 1967.

2. *Anuarul Statistic al Republicii Socialiste Romania 1969*, Bucureşti, 550-1.

3. *Ibid.*, 552-3.

Between the two World Wars Eastern Europe had in fact been a prominent exporter of foodstuffs, particularly grain, a feature that in general has become completely altered since 1945 in favour of self-sufficiency, relatively small-scale trade between socialist bloc countries or reliance upon imports from outside the area in adverse years. Moreover, directly related to this transformation, the accession of Communist governments in the early postwar period resulted in considerable upheavals in the administrative structure and operation of agriculture, based upon extensive confiscation of private estates, redistribution of land among the peasantry, and subsequently by collectivisation on the Soviet model or amalgamation of plots into various forms of co-operative production units, all coming under rigorous centralised control, a mechanism of planned production targets and norms, delivery quotas to state agencies and so on<sup>1</sup>.

Whereas the rural landscapes of Eastern Europe have in some areas been drastically re-shaped by these processes, the crop pattern now does not differ greatly from its predecessor of a generation ago, in so far as arable land still plays a very prominent role in land utilisation and is itself still dominated by cereals. The most impressive feature is the high proportion allocated to one or two main field crops, usually rye and oats or potatoes in the northern countries, paralleled by a wheat-maize combination in more southerly latitudes. Very often the first two ranking crops together contribute up to 60% to the total agricultural surface within any administrative unit. Those districts which exhibit both high intensities of production in terms of surface area occupied and also high yield characteristics may be regarded as environments in which exist the ecological optimum and cultural optimum conditions for the cultivation of specific crops. In other words, tracts such as the middle Danube plains focussing on the Yugoslav Vojvodina and the Banat district of western Rumania, or the lower Danube Valley, encompass favourable experience of edaphic and climatic factors which in turn have been selected for the application of methods aimed at capitalising on these inherent advantages to the full. Here one would expect to find heavy investment in modern machinery, the elimination of archaic practices of production, widespread use of chemical fertilisers, irrigation projects where necessary and any other schemes designed to stimulate agricultural productivity.

Analysis of Rumania's grain production, therefore, is important because grains dominate agriculture, because they are key indicators of the country's post-war development, and additionally because the country includes two regions which stand out as core complexes as defined above, where human

1. J. F. Karcz, (ed) *Soviet and East European Agriculture*, New York, 1967.

activity appears to be harmonised with ecological potential to a high degree.

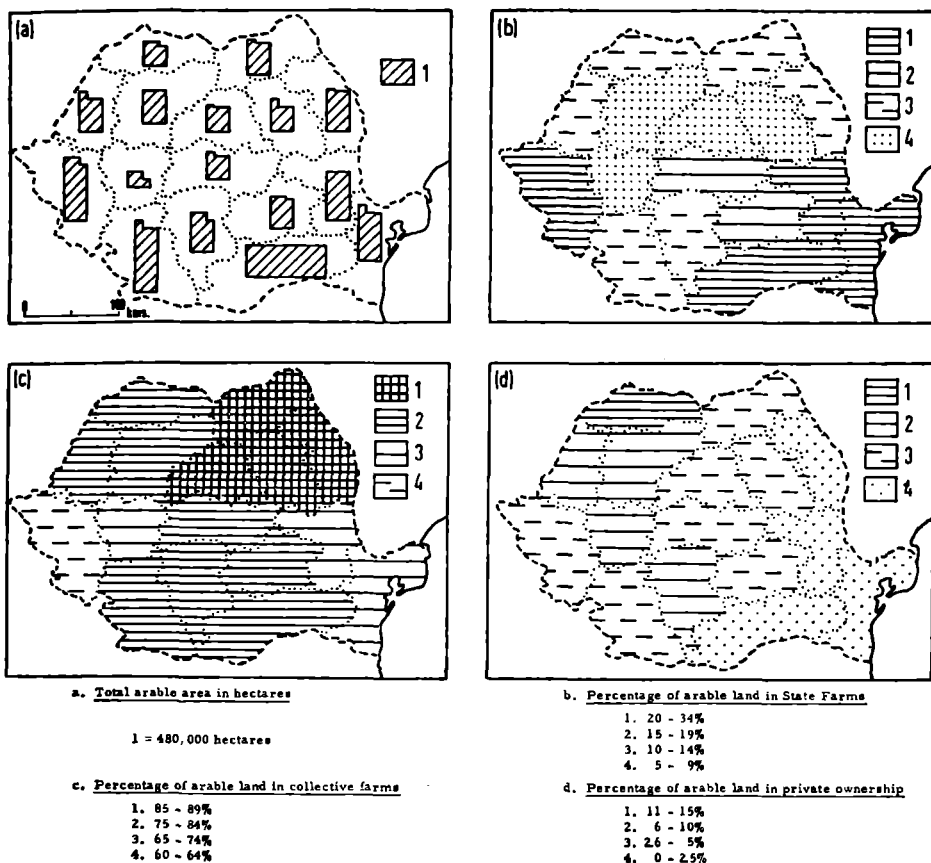
During the period 1948-68 aggregate cereal production in Rumania more than doubled, one of the most interesting aspects being the way in which maize has gradually come to play a greater part, sometimes at the expense of the area sown to wheat, and certainly at the expense of coarse grains such as barley, rye and oats (Table 1). In addition to the total output and composition of grain

Table 1. *Area occupied by the major agricultural land use elements in Rumania, 1948-1968. (thousand hectares)*

	Maize	Wheat	Barley	Oats	Fodder Grops	Total Cultivated Area
1948	3,673	2,545	479	566	682	9,185
1949	—	—	—	—	—	—
1950	2,853	2,785	534	520	757	9,142
1951	2,871	2,807	510	467	784	9,179
1952	2,960	2,775	502	473	749	9,285
1953	2,886	2,758	517	484	779	9,315
1954	3,302	2,457	438	435	852	9,235
1955	3,265	2,948	390	385	742	9,442
1956	3,571	2,894	299	339	799	9,449
1957	3,722	2,968	303	352	783	9,583
1958	3,645	2,973	292	311	831	9,517
1959	3,554	2,988	289	299	850	9,681
1960	3,572	2,836	266	270	1,097	9,733
1961	3,428	2,969	284	243	1,206	9,709
1962	3,107	3,043	250	173	1,479	9,649
1963	3,379	2,874	224	130	1,382	9,743
1964	3,319	2,959	195	89	1,489	9,804
1965	3,306	2,983	233	116	1,339	9,692
1966	3,288	3,034	246	138	1,244	9,732
1967	3,221	2,913	257	127	1,339	9,661
1968	3,344	2,817	292	132	1,303	9,743

harvested, analysis of the spatial variations in cultivation also provides themes of considerable intrinsic value. For the period under consideration (1956-66) the foremost producers of cereals were the provinces of București, Oltenia, Banat, Dobrogea and Galați, each with over a million tons to its credit in 1966<sup>1</sup>,

1. *Anuarul Statistic al R.S.R. 1967*, 292-3. The administrative units referred to in this paper are those that existed during the period under discussion. These have now been replaced by a less coarse mesh of 41 units which facilitate more accurate analysis, but data for this framework is not available for the earlier period. The theme of administrative adaptation is



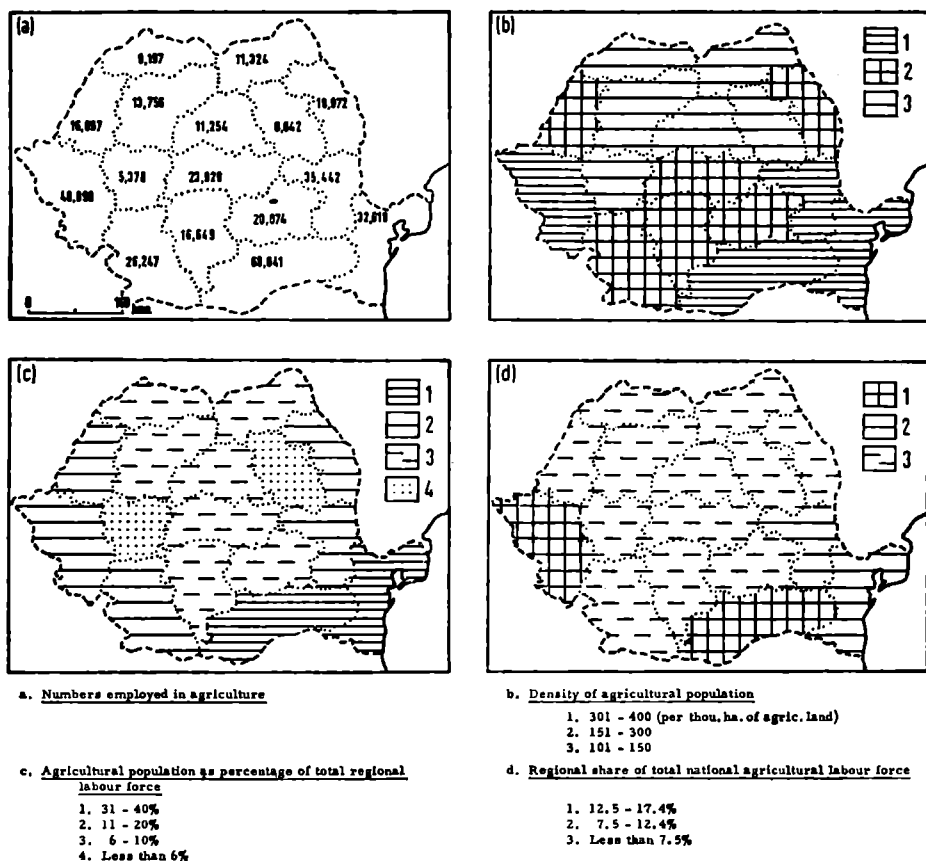
### 1. Ownership of arable land in Rumania.

so that these five areas may be regarded as the real granary of the republic, and together with Argeş and Iaşi they constitute the regions of surplus grain production, while the remainder are deficit areas. Moreover these regions conform with the criteria designated for «core» areas noted earlier, namely that the cultivated area under grains is consistently large and that yields are high.

In order to place these features in their context, before going on to discuss in greater detail patterns observed over a decade, one may refer briefly to facets of the behavioural environment summarised in Figures 1 to 4<sup>1</sup>. The fun-

dealt with in R. A. Helin, «The Volatile Administrative Map of Rumania», *A.A.A.G.*, 57, 1967, 481-502.

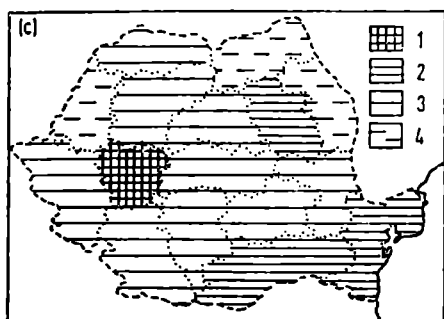
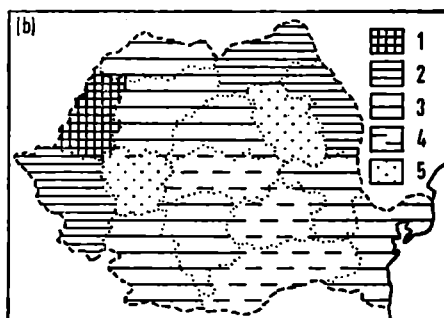
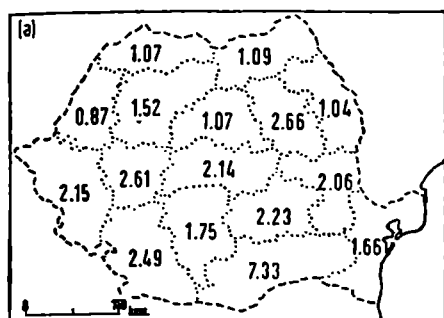
1. Based on data in *Anuarul Statistic 1963*, 79, 128, 215-20, 228-9, 340-2.



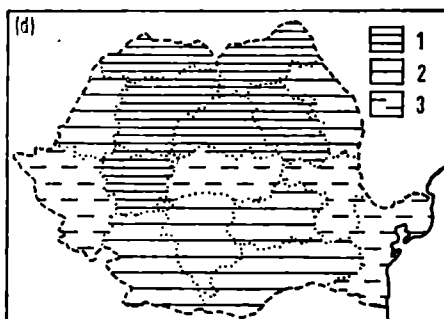
## 2. Agricultural population and labour force in Rumania.

damental physical framework need not be described in detail but it may be noted that in broad terms the republic is characterised by a curved central spine in the form of the Carpathian Mountains, bordered on the northern and western sides by the Transylvanian Basin and on the east by the Moldavian Depression, both of which fade out into the peripheral lowlands of the middle and lower Danube plains respectively. Such a pattern is in turn reflected fairly faithfully in «nucleus» and «fringe» contrasts within the realms of climatic, edaphic and vegetation distributions, the lowlands having the benefit of brown earths and chernozem soils developed on alluvial terraces, together with continental influences of a long, warm and sunny growing season, creating problems of drought and wind erosion on the steppes<sup>1</sup>.

1. The broad picture is described in N. A. Radulescu, I Velcea and N. Petrescu, *Geogra-*



a. Total investment in 1962 in million lei



b. Percentage of total investment devoted to agriculture

1. 40 - 49%
2. 30 - 39%
3. 20 - 29%
4. 10 - 19%
5. 5 - 9%

c. Total investment per capita (in lei)

1. over 3000
2. 2100 - 3000
3. 1100 - 2099
4. less than 1100

d. Agricultural investment per unit of agricultural labour force (in lei)

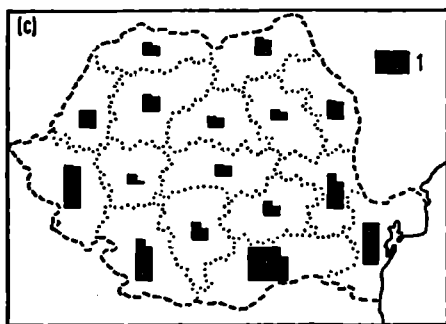
1. 26,000 - 30,000
2. 16,000 - 25,000
3. 11,000 - 15,000

### 3. Regional investment in Rumania.

In common with other East European countries, the rural scene before 1939 was controlled by the existence of vast estates on the best quality soils and the dependency of a peasant population. In 1864 and 1921 attempts made to modify this agrarian structure met with limited success, so that after World War II Communist governments proceeded to expropriate landlords, to redistribute property and create new farmsteads on a smaller scale, and eventually to introduce collectivisation<sup>1</sup>. Modern rural organisation therefore has a territorial expression at three levels:

*fia Agriculturii României*, Bucureşti, 1968, 48-102, and in V. Tufescu, (ed) *Atlas Geografic Republica Socialista Romania*, Bucureşti, 1965.

1. J. M. Montias, *Economic Development in Communist Rumania*, London, 1967, 87-134; J. Poncet, «Les transformations de l'agriculture roumaine», *Annales de Géographie*, 73, 1964, 540-67.

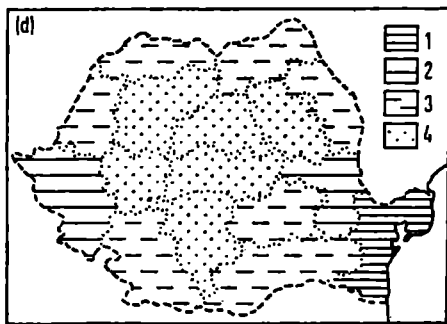


a. Number of 15 h.p. tractors per thousand hectares of arable land

1. 6 - 6.9
2. 5 - 5.9
3. 4 - 4.9

c. Number of grain combines

1 = 24,000



b. Percentage of total cultivators which are mechanised

1. 20 - 29%
2. 10 - 19%

d. Self-driven combines as percentage of total grain combines

1. over 10%
2. 5 - 10%
3. 3 - 4%
4. less than 3%

#### 4. Mechanization in Rumanian agriculture.

1) the landscape of the Socialist sector is totally different both from its own predecessor and from the private sector,  
 2) the Socialist sector is more in evidence in certain types of production than in others, particularly in the ownership of arable land and vineyards,  
 and 3) it follows that the Socialist sector is rather more prominent in some localities than in others.

The regional contrasts in the distribution of «the forces of production» based on this infra-structure soon become apparent. The evolution of such patterns also had its regional phases, since, in the interest of the national economy, collectivisation was completed first in the cereal-producing areas of the south and east of the country, and it has been suggested by Professor Montias that the mountainous districts did not participate as readily in this process not

only because of practical problems of the terrain but also because of cultural factors, such as the presence of significantly large minority groups in the population<sup>1</sup>.

Apart from land, one of the critical variables is the labour force. From Figure 2 it will be seen that in terms of absolute numbers employed in agriculture, the density of the agricultural population and concentration of agricultural workers the peripheral arc stands out, as is the case with regard to each province's share of the total national agricultural labour force. In many ways these distributions depict a transitional stage and reflect the over-all distribution and density of population. The former system had sustained a high level of population growth and density which could not be dispersed or creamed off purely by introducing secondary and tertiary employment to rural districts and small towns, or by improving mechanisation, a process which itself demanded large numbers of qualified personnel, both technicians and bureaucrats.

Needless to say, mechanisation is but one element in the investment programme and it may be argued that the indices used in Figure 4 overemphasise the arable sector, yet broad distinctions between «nucleus» and «fringe» are revealed again. In the context of aggregate investment, the Rumanian situation may be compared with any other European Communist state in so far as agriculture still receives a disproportionately low share, for example 16% of the total, compared with 50% for industry in 1966<sup>2</sup>. At the same time when one compares the 1951-55 average with that for 1961-65, investment in agriculture has increased nearly five-fold, that is at a higher rate than in any branch of the Rumanian economy, while it should not be forgotten that rural life also benefits from developments in construction, transport, education and industry.

Superimposing all these considerations it is possible to say that the outer arc of lowland provinces represent a fair measure of agreement between the ecological and cultural optima as far as grain cultivation is concerned.

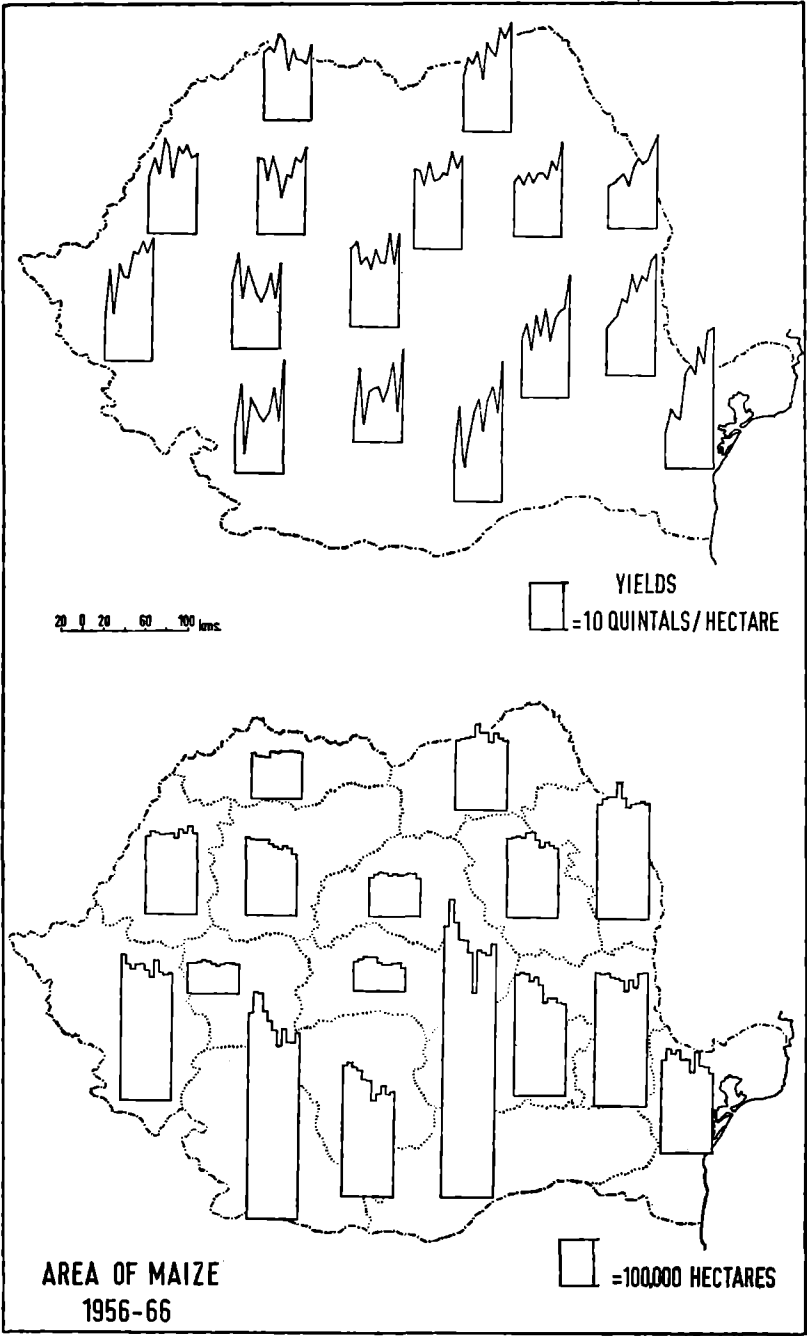
### *Rumanian Grain Production, 1956-66*

Wheat and maize, by virtue of their economic status, clearly demand greatest attention and in the remaining discussion of trends in area, output and yields reference to barley and oats, the only other significant grains here, will be made only for comparative purposes. Figures 5 to 8 illustrate the annual fluctuations in both the cultivated area and the yields per hectare of the four

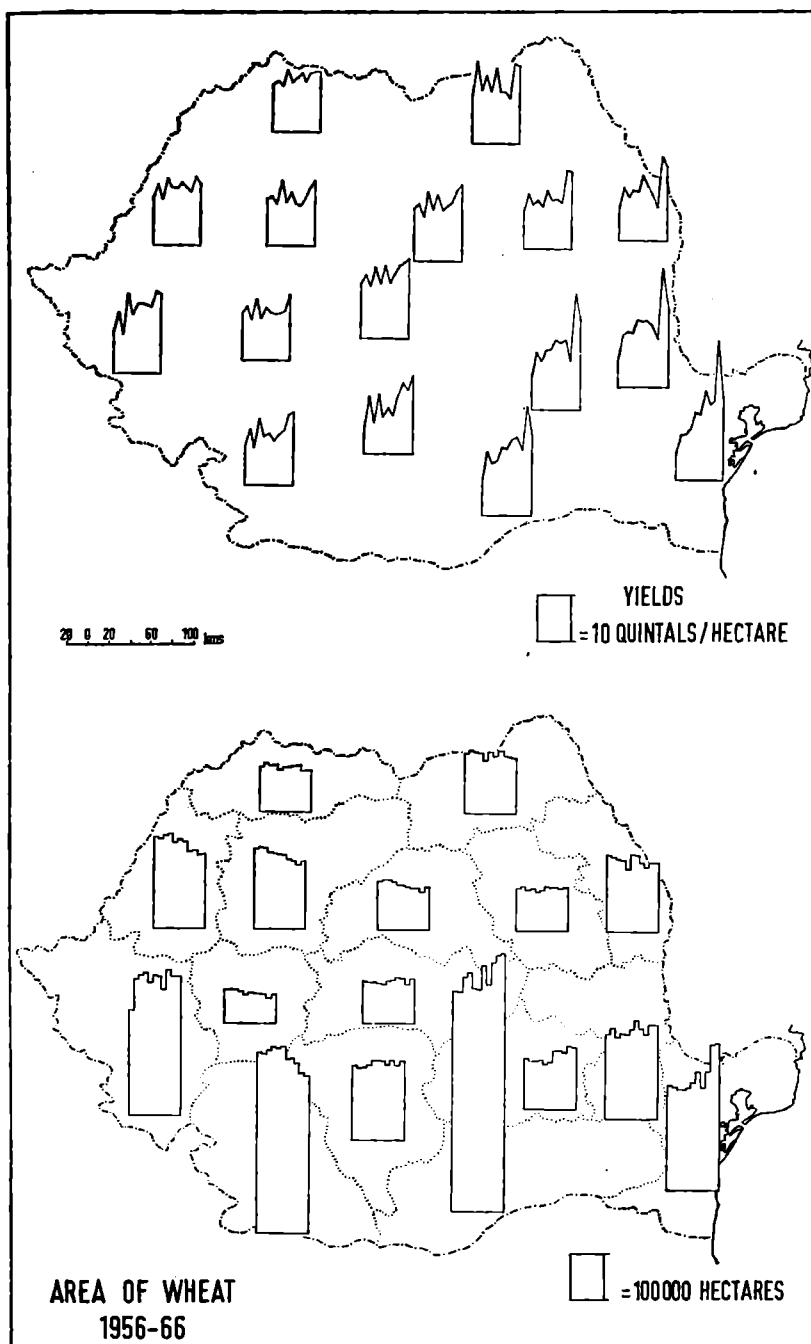
1. Montias, *op. cit.*, 92.

2. *Anuarul Statistic 1967*, 361.

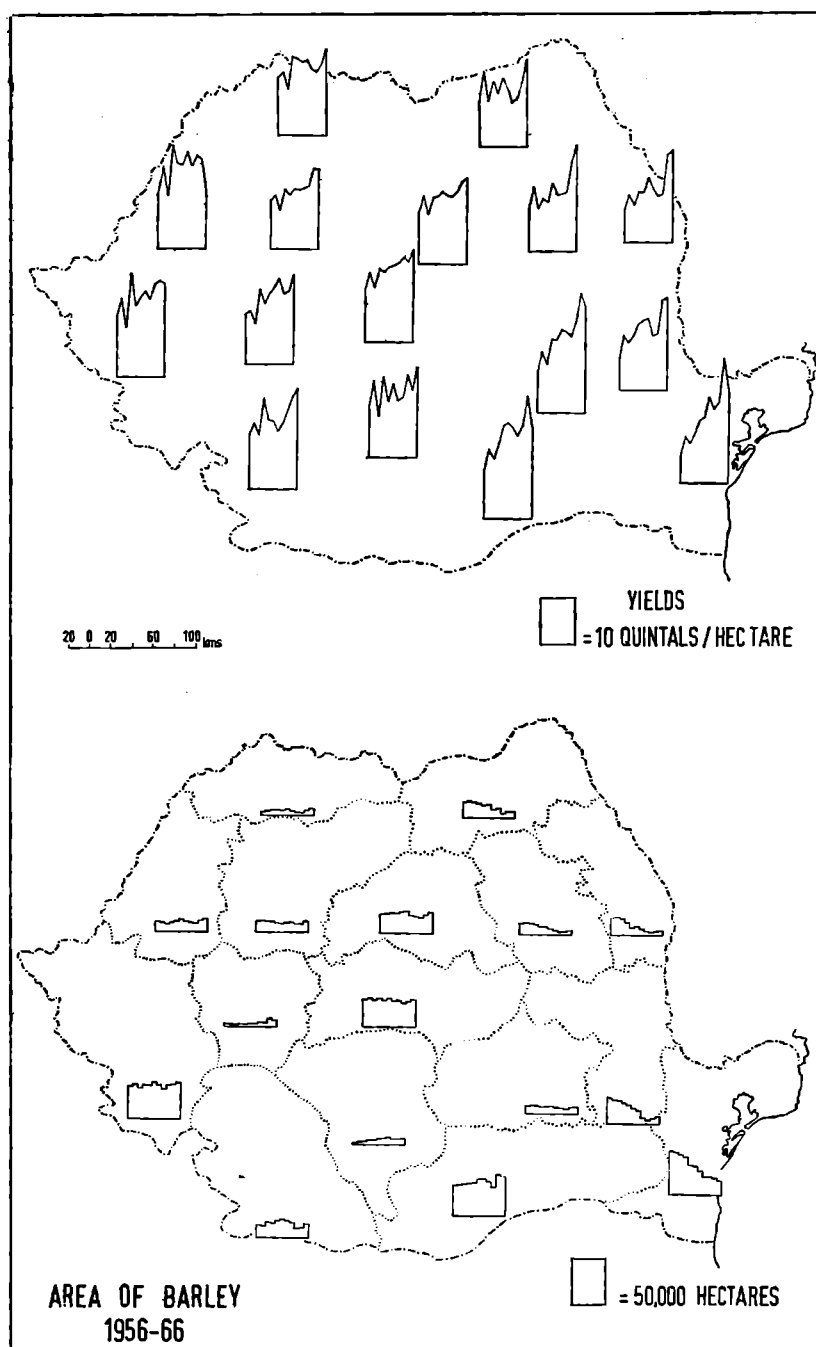




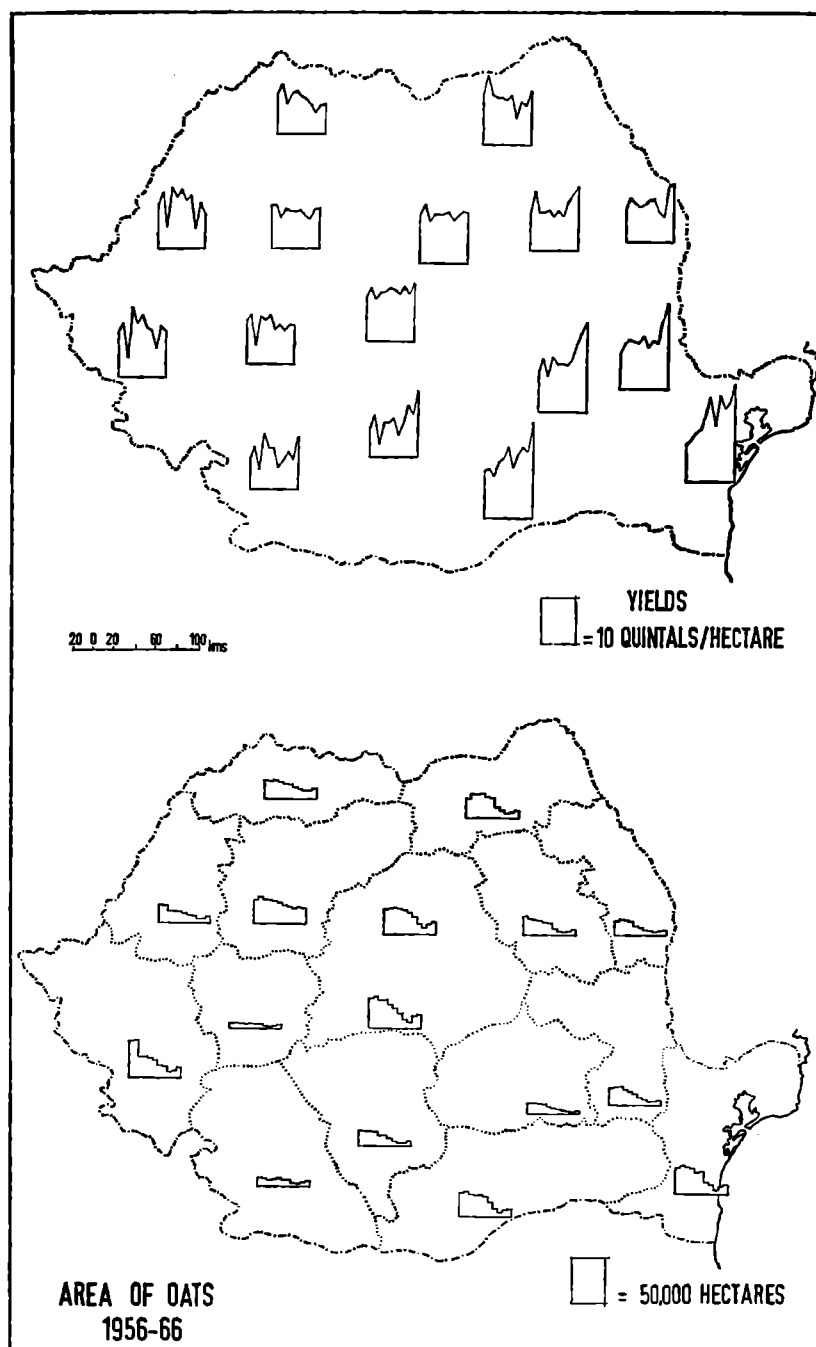
5. Area and yield of maize, 1956-1966.



6. Area and yield of wheat, 1956-1966.



7. Area and yield of barley, 1956-1966.



8. Area and yield of oats, 1956-1966.

grain crops, and it should be remembered that these features may be explained both in terms of spontaneous reactions to environmental hazards at a local level and in terms of government policy at a national level. For example, the occurrence of a severe drought may produce one of two responses: either the position of any given crop may be consolidated by a policy of retrenchment, incorporating reduction of the sown area, or alternatively there may be an attempt to balance out losses by expansion of the area or diversification of the cropping system. In Rumania's case there has been a concerted attempt to reduce the area under grains to make way for industrial and fodder crops, a reduction that has been most spectacular in its effects on the nature of barley and oats cultivation during this period. The replacement of horses by a greater amount of mechanised power, in the state sector at least, has meant a substantial decline in the demand for oats and it is apparent from Figure 8 that such needs as remain are being met from increased yields per unit area under cultivation. Similar results can be seen with reference to the area sown to maize in the districts of Oltenia, Argeş, Bucureşti, Ploieşti and even in Dobrogea at the end of the period under consideration. With regard to wheat the only major reassessment of its status in the total land use pattern occurred in Oltenia, and to a lesser extent in Cluj, Crişana and the north-central Magyar Autonomous District, though such a trend was counteracted by expansion of wheat growing along the plains of the lower Danube.

It is in the context of registered yields per hectare that the degree of harmony achieved with the environment is best illustrated. During the 1956-1966 period yields of the major grains tended to improve, in some cases remarkably and consistently, for example with reference to maize in the eastern districts of Iaşi, Galaţi and Dobrogea, or wheat in Dobrogea. Behind these achievements two basic reasons are prominent: firstly the development and application of superior irrigation techniques in the south and east, chiefly affecting maize but also sugar beet, lucerne and vegetables in sub-urban areas of intensive production; and secondly the great availability of phosphates, nitrates and other chemical fertilisers, for example as a consequence of the extensive investment in the Navodari works near Constanţa which processed raw phosphate imported from the Kola peninsula of the U.S.S.R., Viet Nam, Morocco and Tunisia<sup>1</sup>. Nevertheless, yields still do vary alarmingly from one year to the next, and also from one region to another, so that the analysis of the total situation was approached in several ways, outlined below.

1. Over 200,000 tons were imported in 1966. *Anuarul Statistic 1967*, 456.

*Variability of Yields, 1956-1966 (Table 2)*

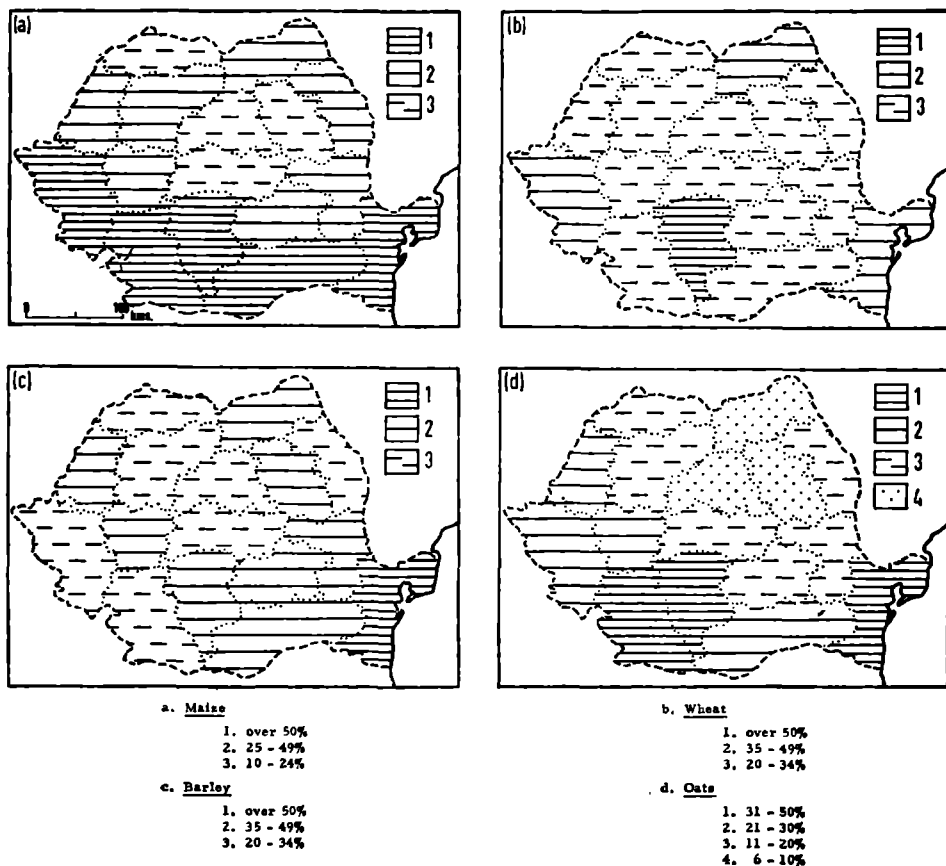
For each of the four major grain crops the provincial yields for each year were plotted, the upper and lower quartile value identified and the quartile deviation calculated. This latter figure, when divided by the median value and expressed as a percentage, was then taken as an index of variability for the individual provinces during the period specified. The general results of this

*Table 2. Variability of yields, 1956-1966.*

Province	1966 Production of grain (‘000 tons)	1966 Grain Surplus or deficit (‘000 tons)	Percentage variability of yields $\left(\frac{Q. D.}{M}\right) \%$ 1956-66			
			Maize	Wheat	Barley	Oats
Argeş	780.4	s. 6.8	68	63	40	45
Bacau	505.1	d. 227.7	15	26	39	11
Banat	1,365.5	s. 517.2	59	48	33	30
Braşov	362.7	d. 367.8	23	27	30	19
Bucureşti	2780.4	s. 694.7	76	25	46	28
Cluj	504.6	d. 292.3	35	21	21	16
Crişana	555.3	d. 7.0	37	27	49	27
Dobrogea	1,172.1	s. 703.6	78	45	53	48
Galaţi	1,119.9	s. 390.4	42	27	42	17
Hunedoara	232.1	d. 210.3	46	22	40	30
Iaşi	797.5	s. 92.6	34	23	35	18
Maramureş	311.8	d. 213.8	17	24	25	19
M.A. Maghiara	396.6	d. 143.9	16	29	28	8
Oltenia	1,570.7	s. 538.0	50	33	23	47
Ploieşti	817.1	d. 144.3	39	31	45	21
Suceava	627.5	d. 34.4	31	43	48	7

exercise are shown in Fig. 9 and it is worth noting that the highest variability of maize yields in Dobrogea (78%), Bucureşti (76%), Argeş (68%) and Banat (59%), while wheat variability was most pronounced in Argeş (63%), Banat (48%) and Dobrogea (45%). As far as oats was concerned the only districts where there was significant variability were Dobrogea, Oltenia and Argeş (48%, 47% and 45% respectively) and the results for barley yields produced a less regular spatial and environmental pattern, though it should be stressed that the levels of fluctuation in these crops were appreciably lower than those for maize and wheat.

When the results relating to the four crops were superimposed on each other, the aggregate situation was clarified in so far as it became obvious that



### 9. Variability of yields, 1956-1966.

the most productive provinces were precisely those whose yields were least reliable, a conclusion that offers at least partial explanation of such heavy investment in the agricultural sector in the areas concerned. At the same time it is worth remembering that while spectacularly improved yields have been recorded in recent years, they still lag behind those achieved in the Yugoslav Vojvodina, the ecological characteristics of which are fairly close to those experienced in the Banat and along the lower Danube<sup>1</sup>.

1. For example, whereas maize yields in the Rumanian Banat reached their peak at about 30 quintals per hectare in 1965-66, throughout the preceeding decade maize yields in the Yugoslav Vojvodina were varying between 30 and 45 quintals per hectare. *Statistički Godišnjak SFRJ 1966*, Beograd, 390.

*Means of Increasing Production, 1956-1966*

An accentuated sequence of boom and crisis can be recognised if one looks at all the regional patterns of production, sown area and yields of wheat and maize. For example, the years 1957, 1959 and 1961 were successful; 1958 and 1960 were universally marked by poorer performance, while the output of grain in 1962 was marred by droughts experienced in the lower Danube plains. In the later period success with one crop dove-tailed into failure with another: for instance wheat flourished in 1965, but maize declined, only to recover well the following year<sup>1</sup>.

Consequently it was found to be expedient to examine the relationship between the sown area and the yield achieved in the *preceding* year, and also the extent to which increased production in any given year could be attributed to improved yields or to extended cultivated area in the 16 provinces, the two alternatives being the standard methods adopted particularly in underdeveloped countries to increase food supply<sup>2</sup>.

The results of this breakdown are shown in the table below

*Table 3. Processes responsible for increasing grain output in sixteen Rumanian provinces, 1956-1966.*

Method	Wheat	Maize
Extended area only	8	4
Improved yield: contracted area	35	43
Improved yield: extended area	45	45

From this summary it would appear that the environmental hazards, especially climatic ones, were combatted by sophisticated means of land amelioration or more effective husbandry rather than by simple extension of the sown area, a method which was not only the least successful, but positively harmful to output. Of the 70 instances in which the cropland was increased from the

1. Knowledge and acceptance of this phenomenon is undoubtedly one element which contributes towards an explanation of the traditional polyculture demonstrated by many peasant economies in south-eastern Europe.

2. The reaction of farmers to the environmental hazards experienced in the American plains has been the subject of some research in recent years and experience of various cropping systems on early experimental farms in Idaho and elsewhere is discussed in K.H.W. Klages, *Ecological Crop Geography*, New York, 1949, 111 et seq. See also T. F. Saarinen, *Perception of the drought hazard on the Great Plains*, Chicago, 1966, and G. F. White, R. W. Kates and I. Burton, *Natural Hazard Research Papers*, Toronto, 1968-70.



previous year's level, an actual fall in yield was registered on 20 occasions with regard to both wheat and maize to such an extent that total production also declined. Such set-backs occurred particularly in 1958 and 1960 when adverse climatic conditions intensified the error. As might be expected the alternative method was practised more often and with greater success in the 1961-1966 period, during which several technical and organisational forces operated in its favour. In spatial terms the greatest improvement of yields was accomplished not so much in the Danube plains core area, but rather on its northern flanks, in Galați and even in the Magyar Autonomous District.

### *Surplus and Deficit Regions, 1966*

The third procedure was to relate production of various foodstuffs to consumption, or at least to theoretical demand, in each of the provinces. The amount of grain exported was deducted from the total production to give the quantity available for consumption within the country, a figure divided by the aggregate population, thus offering an approximation to the mean per capita consumption for the country as a whole. In the second stage this national mean was used as a multiplier for each province's population to indicate the hypothetical provincial grain requirement, which was then subtracted from that province's production as a crude measure of surplus or deficit<sup>1</sup>.

In 1966 the arc of seven districts extending from Banat along the Danube to Dobrogea constituted by this index areas of cereal surplus, producing 2.9 million tons more grain than their population required if they conformed to mean national consumption levels. The remaining nine districts to the north were subject to a deficit of 1.6 million tons, leaving an over-all surplus of 1.3 million tons of cereals which coincided with the amount exported in that year<sup>2</sup>.

When these conclusions are interwoven with those drawn from a study of other crops, such as vegetables and potatoes, there can be little doubt that regional specialisation of production exists within the apparently wide distribution of individual cereals and other foodstuffs, and moreover it may be reasonable to suggest that specialisation is of a particular type whereby the provinces which yield large surpluses supply the export market and are planned

1. It is appreciated that this method assumes uniform standards throughout the country and minimises the influence of regional emphasis of one sort or another on diet. In the absence of detailed information, however, it may be regarded as adequate for the purpose of this general study. See also C. Thomas, *Food Production and Consumption in Rumania, 1948-1968*, University of Birmingham, (Centre for Russian and East European studies, Discussion Paper RC/B No. 4), 1973.

2. *Anuarul Statistic 1967*, 455.

with that function in mind<sup>1</sup>. A major problem is that in the realm of yield fluctuations the contrast between surplus and deficit provinces is very marked: in 1966 surplus districts had mean variabilities of 38% for wheat and 58% for maize, compared with respective means of 28% and 29% for those crops in deficit districts, all of which implies that the Rumanian grain surplus and export potential rests uneasily on a relatively unstable base. Furthermore, the balancing of discrepancies within the country depends primarily upon access to road and rail transport facilities and here, too, much evidence supports the view of widespread regional containment or self-sufficiency outside the exporting regions of the south. Nearly two thirds of the food tonnage transported is moved by road and the average distance per ton varies only between 25 and 30 kilometres. By rail the average length of journey of food freight is no more than 220 kilometres, that is only to provinces adjacent to that in which the commodity is produced<sup>2</sup>.

Despite the oscillations from year to year that were discussed above, the 1960's saw about 10% of these cereals finding markets abroad while at the same time, again in spite of population growth of a million persons, per capita consumption of cereals increased from 0.4 tons to 0.66 tons per annum<sup>3</sup>. In a speech made at the Ninth Party Congress on 19th July, 1965 President Ceaușescu maintained that «co-operativization of agriculture has created conditions for a steady advance in stepping up agricultural output in all regions of the country, for an improvement in the living conditions of the peasantry»<sup>4</sup> and stressed that increased use of new wheat strains and high-yield maize hybrids had been aided by «strengthening the technical and material basis of agriculture», particularly mechanized cultivation and harvesting<sup>5</sup>. Additional investment in mechanization programmes, output of chemical fertilizers, pesticides and fungicides, notably from the works at Turnu Magurele, Craiova and Tirgu Mures, and reclamation of the Danube flood plain would all have as their objective the even greater output of cereals and fodder crops<sup>6</sup>.

1. Following the writer's visit to Rumania in the summer of 1970 under the British Council's Cultural Exchange Programme, work is proceeding on a study of regional contrasts in various aspects of the Rumanian economy.

2. *Anuarul Statistic 1967*, 404-7. While a slight increase occurred in the average distance for which cereals are transported by road in 1967 and 1968, little or no change is recorded in that by rail, and indeed when compared with the situation before 1950 there would seem to be a marked decrease. *Anuarul Statistic 1969*, 508-11.

3. Derived from data in *Anuarul Statistic (comerț interior)*, various years.

4. N. Ceaușescu, *Romania on the way of completing socialist construction*, București, 1969, vol. 1, 12.

5. *Ibid.*, 13.

6. *Ibid.*, 35-6.

Nevertheless, it seems fair criticism that money has been invested increasingly in the most productive regions<sup>1</sup>, and that the gap between the backward and progressive areas is growing rather than diminishing. Consequently, agriculture's share of total investment varies enormously from one province to another—in 1962 it stood at 5.4% in Hunedoara and 47.9% in nearby Crisana—but as background to this situation one must remember that the more developed regions can afford to put less, relatively and absolutely, into agriculture because of capital accumulated over a long period, in contrast to the backward areas which receive less in any case.

The inevitable conclusion was therefore that, at the close of the period under consideration in this paper, Ceaușescu in addressing the plenum of the Central Committee of the Rumanian Communist Party in December 1966 was obliged to dwell at some length on shortcomings, not only in agriculture (which were partly attributed to misconceptions upon which investment policy was founded) but also in the effectiveness of the internal transport system and the country's comparative weakness in foreign trade<sup>2</sup>. It was hoped subsequently that reforms in the administrative structure put forward in February 1968 would facilitate the remedies being advocated<sup>3</sup>, but it will be some years yet before an objective judgement can be made<sup>4</sup>.

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1. *Anuarul Statistic 1967*, 370-1, 374-5. București city and province still receive more than three times as much investment as any other province. Investment concentration on the plains is confirmed by statements in *Viața economică*, 14, 1971, 5-6.

2. Ceaușescu, *op. cit.*, II, 134 et seq.

3. *Ibid.*, III, 9-34.

4. It is intended to conduct a similar analysis for the new 40 județ divisions of Rumania when a decade has elapsed since their creation and data became available.