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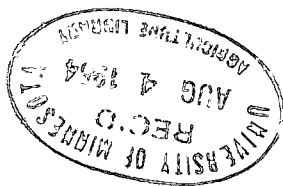
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# **The Problem of Surplus Agricultural Population**



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*Mr. Clayton E. Whipple, Director of Rural Education, Near East Foundation, and Educational and Extension Advisor of the Royal Bulgarian Ministry of Agriculture, and Dr. A. U. Toteff, Agricultural Economist in the Institute of Agricultural Economic Research, Sofia University, deal at considerable length in this joint paper with the problem in Bulgaria and in south-eastern Europe generally. The efforts towards solution in a country where the congestion of agricultural population is great, and where the outlets into industry or by emigration are severely limited, are of special interest.*

THE intensity of population seeking to derive a livelihood from agriculture, which Dr. J. D. Black of Harvard University referred to at the Fifth International Conference of Agricultural Economists as the man-land ratio, is one of the most fundamental factors governing the structure of agriculture in the peasant lands of Europe and Asia. It is also one of the most important economic, social, and political problems of the governments, financial organizations, and educational and social agencies of countries comprising at least half of the world's population. Not only does the situation, which has been serious for centuries and is constantly becoming intensified owing to the natural increase of population in practically all of these countries from year to year, seriously affect the financial structure and stability of these nations, but it creates social unrest and conflict and exerts pressure resulting in frequent political crises and even changes in the form of government. Finally, it leads to dislocations in the international financial and trade relationships resulting in trade wars, and even in armed conflicts.

Nor is this situation important only to the predominantly agricultural nations of the east and south-east of Europe and Asia, it is equally important to the industrial or relatively industrialized nations of the west. These countries must import the major portion of their food-supplies and large quantities of raw materials for their industries, an important part of these imports coming from eastern and south-eastern Europe which in return, at least in relatively prosperous periods, imports large quantities of manufactured goods from the west, and is potentially virgin soil for expansion. A study of the relationship between the two Europes reminds one of the development of the industrial depression in America which occurred after several years of agricultural depression. Similarly in Europe the lack of purchasing power of eastern

Europe following the War has been an important factor in the recent financial depression of the west.

As stated by Tiltman:<sup>1</sup> 'The peasant millions represent the one undeveloped reservoir in Europe. Short of everything, from farm tractors and kitchen ranges, to hats and plates, the peasants lack only purchasing power to initiate the greatest industrial boom of the twentieth century.' Germany now secures between 13 and 15 per cent. of its total needs in food and raw materials from these countries in exchange for manufactured goods through its clearing and compensation systems, and takes about half of the total exports of all these countries. For example, in the case of Bulgaria this reaches 70 per cent. of its total exports, 97 per cent. of which are products of its agriculture. Thus they are not merely, as often believed, subsistence farmers who are relatively self-sufficing and neither sell nor buy on the world markets.

Much has been written about the transition between Medieval Europe and Modern Europe, but it will be useful to examine briefly the factors leading to the development of a more advanced agriculture and to the industrial revolution in the west as contrasted with no corresponding development in the east. An increase in the population throughout the Continent at a relatively constantly accelerated rate was made possible by an increase in the available food-supply, the lack of which, combined with frequent epidemics and lack of political, economic, and social security, had made the life of the individual and society itself most precarious during the early period. In western Europe better transportation facilities, improved agricultural methods, scientific developments in hygiene and sanitation and even social medicine, radical changes in education, and the organization of society accompanied and even assisted the accumulation of wealth. A better financial structure found expression in the industrial revolution, great scientific progress in industry, and an improved agriculture, and gave an outlet for surplus agricultural population in the industrial and transportation industries, as well as improving the situation of the remaining agricultural population. The opening up of the New World and development of colonial empires not only accelerated the industrial development and commercial relationships but, until very recently, have provided a most useful outlet for surplus population from

<sup>1</sup> Tiltman, H. Hessell, *Peasant Europe*, pp. 17-18.

western Europe. By contrast, the emigration from east and south-east Europe began at a later date and was effectively checked by restrictions before it had proceeded very far toward assisting in the solution of the problem of providing an outlet for its increased population which was almost entirely agricultural.

Isolated geographically from western developments, hampered by civilizations whose political and social institutions tended to stress the perpetuation of the traditions and existing social-economic conditions of the past, suffering from invasions, dynastic struggles and epidemics, the eastern countries did not participate in the progress of the west, and the increased population was forced to continue to seek its living from the land. Educational agencies, health services, financial organization all remained undeveloped. Even after the various Balkan countries, for example, secured their freedom and national status during the nineteenth century or the first decades of the twentieth century, their poverty of wealth, education, &c., presented a most difficult and discouraging situation for governmental and private agencies, who strove to develop constructive policies and programmes for eradication of the economic, social, educational, and other ailments of the population. It was difficult to secure the necessary funds either by taxation or domestic and foreign loans, and the latter when secured were usually on terms resulting in heavy national debts requiring a major portion of the annual budgets to be devoted to payments on these foreign debts. This was intensified after the Balkan and World wars.

This 'other half' of Europe, which may well be grouped under the heading of a famous phrase as the 'forgotten men', is at least 75 per cent. agricultural. As stated by Tiltman:<sup>1</sup>

'According to League of Nations figures 82.4 per cent. of the population of Bulgaria is engaged in agriculture, 75 per cent. in Poland, 80 per cent. in Roumania, 60 per cent. in Hungary, and 80 per cent. in Yugoslavia. About one hundred millions of men, women, and children in Eastern Europe, outside the frontiers of Soviet Russia, are peasants. Add to that total the Russian hosts west of the Urals and thirty millions of Ukrainians under the Soviet state and the peasants living east of Vienna total one hundred and fifty millions, 10 per cent. of the world's total agricultural population which inhabits Europe's vast peasant lands. . . .'

In discussing the problem of this vast group of the world's

<sup>1</sup> Tiltman, H. Hessel, *op. cit.*, pp. 16, 25.

agricultural population, we learn, through discussion, correspondence, and exchange of literature with men working in other regions, that similar problems exist among the more than 500 millions of rural people of Asia and even to some extent in the countries of central and western Europe, where there are many small-holdings similar to the peasant farms of eastern Europe, and the available land is also almost entirely devoted to agriculture. To quote only one example Michael<sup>1</sup> writes: 'Of the 5,702,752 landowners in France 4,853,000 possess on the average only 6.4 acres of land.' Here, however, there are in general better outlets for the surplus agricultural population in industry and emigration to colonies, &c., not available in eastern Europe.

In eastern Europe much unproductive and agriculturally unsuitable land has been plowed, forests liquidated and unreplaced, with resulting erosion which has not only had harmful effects upon the people attempting to live on the agriculturally unsuitable portions of this land, but has eventually ruined much formerly suitable and often rich farming land in the valleys below. From the health point of view, streams have been converted into marshes where much fertile land has been lost, and the entire surrounding country has become a prey to the malaria-bearing *Anopheles* mosquitoes breeding there. In Greek Macedonia, for example, the Government has spent millions of dollars from its slender resources to make this soil again available for agriculture, to wipe out the malaria which has sapped the life of a large part of the nation, and to replace eventually the forests. Similar conditions exist to some extent in other Balkan and Near-eastern countries.

One is reminded here of the flood-control work in the Ohio and Mississippi valleys in America, and the work of the Resettlement Administration. There in recent years the tendency has been to reduce the amount of land devoted to agricultural production, removing people from land unsuitable for agricultural purposes, this land in general to be reforested or planted with soil-conserving crops. In eastern and south-eastern Europe practically no other land is available for resettlement.

Briefly stated, eastern and south-eastern Europe is not only

<sup>1</sup> Michael, L. G., *Agricultural Surveys in Europe: France*. Technical Bulletin no. 37, U.S. Dept. Agric., 1928, p. 39.

predominately agricultural but an intensely populated region with a rapidly increasing population. As stated by Tiltman:<sup>1</sup>

'This vast world of the peasant, lying remote from railways and even roads, is growing in numbers and importance. The population of the Soviet Union is increasing by three million persons every year—an increase equal to the whole of the rest of Europe combined. The excess of births over deaths in Bulgaria is 14·8 per thousand inhabitants, in Hungary 9·9 per thousand, and in Poland and Roumania 15 per thousand. In all those countries this annual increase in population is almost entirely confined to peasant regions.'

He adds that:

'Given more efficient health services and especially aid during maternity, this annual growth in numbers would be very much greater. Bulgaria's increase has taken place despite the highest death-rate from tuberculosis in all Europe; while the lack of medical facilities for the rural populations is reflected in the infant mortality rates, which vary from 197 deaths under one year per thousand live births in Roumania to 137 in Czechoslovakia and Bulgaria.'

This statement would neither comfort nor help health ministers in securing funds for rural health work expansion from finance ministers viewing the problem in countries already taxed to the limit of their ability to pay. Perhaps the statement that many working days are lost, and ability to work efficiently is diminished, because of malaria, intestinal diseases, tuberculosis, &c., would be more helpful. Likewise many individuals survive to become practically a complete burden to their families or society. Fortunately since Tiltman wrote in 1933 there is abundant evidence available in peasant countries to prove that the natural increase of population is becoming less from year to year, despite great progress in improving the rural health services of these countries both qualitatively and quantitatively. This has been effected despite a falling off in both the infant mortality and the general mortality rate and in the face of some improvement in rural economic conditions in the region. This is chiefly due to a great decrease in the number of child births.

Again this also cannot be credited directly to health work as birth control cannot legally be taught in these countries; but peasant people are rapidly realizing the value of having fewer children and raising them to be better people, with the help of rural health workers and associated agencies. Hence we may

<sup>1</sup> Tiltman, H. Hessel, *op. cit.*, pp. 16-17.

visualize that the present annual natural increases, reaching, for example, 80,000 for Bulgaria with 6,090,000 people, about 200,000 for Yugoslavia with 15,000,000, and 250,000 for Roumania's 19,000,000 population, will level off within the next generation. But, as will now be indicated, the present situation is sufficiently serious without considering the anticipated natural increase of population for at least one future generation.

Wilcox,<sup>1</sup> quoting from East's *Mankind at the Crossroads*, states: 'Professor East, an accomplished biologist . . . in close contact with practical agriculture in the United States, could prove that under contemporary agricultural conditions it requires 3.2 acres (1.28 hectares) of land to feed one average individual for one year at an American standard of living.' He adds (p. 25): 'the best that Professor East could do was to obtain an estimate that the annual produce of 2.5 acres (1 hectare) of average land is required to maintain one average person, if that average person will be content with the limited diet and the few material comforts enjoyed by the European peasantry.' In other words, at least 12.5 to 15 acres (5-6 hectares) are required to maintain the average peasant family of five or six persons at present levels. A careful study of Professor East's calculations conclusively indicates that each family concerned must conduct its little farm enterprise on a level equivalent to that of the better farmers in each region in order to produce the yields required. In many cases this will of course consist largely in farm reorganization, resulting to some extent in the substitution of other crops for those now grown, and increased attention to animal husbandry, vegetable gardening, &c. But an increase in yield of the basic crops, such as wheat, maize, &c., is also required.

The peasant countries could be classified roughly into two main groups, those where there are many large estates or farms employing numerous farm labourers, and countries where the small peasant farm worked by the peasant and his family is almost the only type found. Hungary is the best example of the former group and Bulgaria of the latter. This could involve a comparison of the merits of the large and small farm, but we do not consider such a discussion advisable nor pertinent to this paper. Land reform is being carried out in all countries having large estates, and hence, at least relatively speaking, the small family farm will eventually

<sup>1</sup> Wilcox, O. W., *Nations can Live at Home*, 1935, p. 17.



be the predominating type in all. Moreover, it is obvious that this will not alter the basic problem of the man-land ratio as the land will be assigned chiefly to people now working as labourers upon it. The total amount of land available for agriculture is already being exploited in practically all cases, and, as will be pointed out later, there is very limited opportunity for migration to or from the land. Hence, while discussing the situation from the point of view of the small peasant farm, the discussion will apply almost equally well to the large holdings not only as regarding farm income and standard of living, which a careful inspection of studies in various countries shows to be about the same, but from the point of view of the man-land ratio of the rural population.

In these predominately rural countries the arable land is not only already exploited but is not as plentiful as would be expected. To give a few examples of the percentage of arable land in peasant countries we find the following figures:

	%		%
Hungary . . . . .	63.6	Yugoslavia . . . . .	51.0
Poland . . . . .	50.0	Lithuania . . . . .	47.1
Roumania . . . . .	45.0	Bulgaria . . . . .	40.0
Estonia . . . . .	22.8	Greece . . . . .	22.0
Albania . . . . .	8.0		

Even more significant are figures given by A. Reithinger and G. Balicki<sup>1</sup> with regard to the density of population in terms of arable land. Per square kilometre (100 hectares or 247 acres) Bulgaria has 116 agricultural people, Yugoslavia 114, Roumania 97, Poland 91, Italy 90, Hungary 72. By contrast they give the following figures for more industrialized nations: Germany 52, France 48, United States 17, Canada 11, and England 30. Commenting on this they state: 'If we accept 35-45 persons per square kilometre of arable land as normal, the South-eastern European countries are in fact considerably overpopulated, especially in view of their low level of agricultural technique, owing to which the yield per hectare is insignificant.'

On the basis of Professor East's calculations Bulgaria and Yugoslavia already have slightly less than the 1 hectare (2.47 acres) required per person to maintain life at present low standards of

<sup>1</sup> *Vierteljahreshefte zur Wirtschaftsforschung*, 12 Jahrgang, Heft 2, Neue folge, 29 September 1937.

living, and Roumania, Poland, &c., are just about at marginal levels, while on the basis of 35-40 persons per hectare there would be on the average about  $2\frac{1}{2}$  times as many people as could comfortably be supported on the arable land available. Ray<sup>1</sup> states that the average size of holding in a typical Indian village was 7.3 acres (under 3 hectares) in 1926-7 as compared with 14.02 acres in 1900-1. Buck<sup>2</sup> found the density of population on 2,640 Chinese farms to be 282 per square kilometre and the average size of farm 2.52 hectares (6.22 acres), which are representative for Chinese conditions.

A study of the statistics available in the various countries regarding size of holding merely confirms the above figures. Bulgarian figures, which are representative, show that 63 per cent. of all farms are less than 5 hectares (12.5 acres) in size and 90 per cent. are less than 10 hectares (25 acres), while the average size for the 884,869 farms according to the 1934 census was 4.94 hectares (11.1 acres) as compared with 5.72 (14.1 acres) in 1926. The average size of farms in Greece, China, India, and some other countries is even lower, while the average in other Balkan and Near-eastern countries, disregarding a few large farms, is not much higher.

The 4,372,529 hectares (10,931,320 acres) of arable land in Bulgaria are divided into no less than 11,862,159 plots of land which are hence less than an acre in size and constitute one of the most serious problems for improved farming. This is now being rapidly improved in Bulgaria and other countries through so-called 'comassation' (amalgamation) by which all of the landholdings of a peasant farmer are consolidated into one to three or four fields instead of being in 10-15 plots scattered all over the community. Information available shows that this is almost the only source for increasing farming land. On the average nearly 5 per cent. of the arable land is lost under the strip farming system in the form of boundaries and paths between strips owned by different farmers, while at least 80 per cent. of this formerly unused land is being now cropped in villages where 'comassation' has already been carried out.

Likewise this indicates that measures must be taken to prevent

<sup>1</sup> Ray, S. C., 'Economic Conditions of Peasants in British India', *Proceedings of the Third Conference of Agricultural Economists 1934*, p. 113.

<sup>2</sup> Buck, J. Lossing, *Chinese Farm Economy*, 1930, pp. 34, 351.

the same situation developing after land reform creates small farms and the usual practice of land splitting through inheritance begins to work.

Farm incomes, gross and cash, are very low throughout the region, as is the standard of living. Dr. Assen Tschakaloff,<sup>1</sup> of the National Bank of Bulgaria, states that on the basis of the national income and farm income in 1929 and in 1934 the average gross farm incomes were respectively 35,000 leva (\$350) and 14,000 (\$140), while the cash incomes received from all sales from the farms was 10,000 leva (\$100) in 1929 and only 4,200 (\$42) in 1934. These figures, which are representative of those for other south-eastern European countries, show not only the low gross and cash income per farm in relatively normal times, but also the sharp reduction resulting from the inception of the economic crisis in 1929-30. Figures from account books kept on 109 farms in different parts of Bulgaria under the direction of Professor Molloff's Institute of Agricultural Economics Research show that the average gross income in 1935-6 on the basis of a 5-hectare (12.35-acre) farm was 26,150 leva (\$261.50) and the cash income from all sources 5,750 leva (\$57.50). These figures come from farms slightly above the average both for Bulgaria and the peasant lands in general.

Both the above studies indicate that on the average 35 per cent. of all products of Bulgarian farms are marketed from the farm. This differs widely, as in other peasant countries, from region to region and farm to farm. Some farms are largely self-sufficing and sell and buy little. On the other hand are the small 1 to 1.5 hectare (2.5 to 3 acres) tobacco farms of Greece, Turkey, Yugoslavia, and Bulgaria (chiefly in Macedonia and Thrace), which produce only tobacco and buy flour, vegetables, and everything else which they need and their income will permit. Similarly there are many vegetable producing farms, while many villages near Sofia and other cities have sufficient cows to require purchase of grain and even forage from nearby general farming sections. These small farms are generally more prosperous, though in a year with a poor tobacco crop or lack of market demand the families are left with a crop they cannot consume, and face starvation unless loans can be secured adding to the already heavy debt burdens.

<sup>1</sup> Tschakaloff, Assen, 'The Debt Situation in Bulgaria', *Social Economic Structure of Bulgarian Agriculture*, Sofia, 1935, p. 140.

Cash for purchasing items in addition to the basic peasant family needs of salt, kerosene, and matches, &c., is very scarce for the peasant families, who do not specialize or produce intensive cash crops for market. A recent economic study<sup>1</sup> states: 'the annual average monetary needs of a peasant household in the Varna district do not exceed 2,000 leva (\$20 at current rates).' These figures in general are confirmed by other Bulgarian studies as well as studies made by Cornatzeanu, Ionescu-Sisesti, and Gusti in Roumania, Franges and Bicanic in Yugoslavia, Moussouros' studies in Near East Foundation areas in Greek Macedonia, as well as those of Elmhirst, Darling, Hatch, and Higginbottom in India, and Buck in China. Perhaps the most extreme example available is that given by Torgasheff<sup>2</sup> in China, who states: 'A peasant family of five persons in China can live on 25 Chinese dollars a year, that is on \$2.08 a month or on 40 Chinese cents per month per capita. This annual expenditure of \$25 covers not only cash expenses of the family but value of food production on the farm as well.' He adds: 'as far as clothing is concerned the summary of various information on hand brings us to an approximate estimate that the rural population of China spends for clothing an average of two dollars per year.' All of the above figures leave an impression that the average peasant family cannot purchase much either to improve its standard of living or to assist local or international industry, but potentially the purchasing power is there to be developed by improved agriculture.

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An interesting home accounting study by Mocheva<sup>3</sup> of 939 farm households averaging 6 hectares (15 acres) located in 193 Bulgarian villages showed that the average family of 6.1 members, equal to 4.66 adult consuming units, had an annual home budget of 24,093 leva (\$240.93), including the value of both products produced on the farm and purchased or secured by exchange. Of this \$164 or 68.43 per cent. was for food, \$23.91 or 9.93 per cent. for clothing, \$10.48 or 4.35 per cent. for shoes, \$10.40 or 4.32 per cent. for

<sup>1</sup> British Department of Overseas Trade, *Report on Bulgaria 1934*, p. 35.

<sup>2</sup> Torgasheff, B. P., 'Cost of Living by Masses to Keep Alive', *The Peking Leader*, 19-20 July 1929.

<sup>3</sup> Mocheva, Christina, *The Bulgarian Village Agricultural Household during 1935-6*, Sofia, 1938 (English summary), pp. 97-9.

heating, \$3.27 or 1.36 per cent. for lighting, \$4.40 or 1.83 per cent. for furniture, \$7.28 or 3.02 per cent. for cultural and religious needs, \$0.97 or 0.40 per cent. for personal needs such as tobacco, &c., \$5.82 or 2.42 per cent. for medical help, and \$0.61 or 0.25 per cent. for repairs and improvements to the family home. Only \$73 worth or 30.3 per cent. of the above items were secured from outside sources. The same authority gives figures showing how unbalanced and inadequate is the diet if judged by western standards. This is especially true when one recalls the arduous and laborious way the people carry out their tasks during the busy season and that the women not only work in the fields but have no labour-saving devices at home. Bread, often of a poor quality, comprised 72 per cent. of the food consumed. Meat constituted only 10 per cent. of the value of food consumed, dairy products and eggs 6 per cent., vegetables 5 per cent., fruit 4 per cent., alcoholic beverages 2 per cent., and sugar and rice 1 per cent.

Further light is thrown upon this question by a survey made by the Bulgarian State Statistical Bureau concerning annual food consumption of government officials, labourers, and farmers.

### *Annual Consumption of Products*

<i>Product</i>	<i>Government official</i>	<i>Worker</i>	<i>Farmer</i>
Flour . . . . .	192 kg.	214 kg.	363 kg.
Meat . . . . .	34 "	10 "	26 "
Milk . . . . .	59 "	32 "	83 "
Eggs . . . . .	112 "	..	..
Cheese . . . . .	8 kg.	6 kg.	10 kg.
Vegetables . . . . .	92 "	93 "	19 "
Fruit, melons . . . . .	34 "	23 "	19 "
Alcoholic beverages . . . . .	11 "	6 "	38 "
Sugar . . . . .	14 "	10 "	2 "

Peasants feel that they must sell all eggs, milk, &c., possible and cannot afford to buy sugar. Hence the emphasis placed upon malnutrition as a factor in rural ill health by Dr. Stampar<sup>1</sup> of Zagreb, Yugoslavia, who states:

'A survey undertaken in several rural countries on the nutrition status of the population showed that there exists undernourishment among a large number of the rural population, and that agricultural products are exported from rural

<sup>1</sup> Stampar, Andreyka, 'Observations of a Rural Health Worker'. The Cutter Lecture, *New England Journal of Medicine*, vol. 218, no. 24, pp. 991-7, 16 June 1938.

countries without consideration of the nutritional requirements of the people. The reasons are purely commercial. The industrial products imported into the rural countries in exchange serve mainly the urban population and industrial establishments, from which the farming population derives comparatively very small benefit. To cover their money requirements the farmers owning small holdings are usually compelled to sell the best products of their farms to the town people. Thus they are helping the cities and industry, themselves remaining far in the rear in regard to sanitation, housing, health, and general education.

'The unfavourable social and economic conditions of a very large part of the rural population, which have been pointed out here only in a general way, were followed by other phenomena such as illiteracy, illness, a high general and infant death rate, poverty, unrest and migration.'

Apart from benefits to be secured from 'comassation' and indirectly from land reform, it seems to us that there are three possible solutions of this problem of surplus agricultural population in peasant countries. These are: emigration; diversion of surplus agricultural labour to industrial and other non-agricultural occupations; and finally, reorganization and improvement of the production and marketing systems of the present small peasant farms, utilizing co-operative agencies to the largest possible extent. Governmental and private agencies within the countries themselves can and are co-operating, especially with regard to the third solution, and it is advisable and necessary that governmental and private financial, educational, and philanthropic agencies in other non-peasant countries do likewise, if only from the point of view of enlightened self-interest.

The emigration solution obviously is relatively unimportant when viewed either as a present or future solution, especially in view of the present world-wide refugee situation which not only seems difficult of solution, but bars the road to doing anything to transfer people already settled and occupied on the land. Whelpton<sup>1</sup> writing in 1934 suggested this as a possible solution and at the same time recognized the extreme nature of the difficulties to be met in the following words: 'Emigration from these countries on a large scale seems quite improbable . . . these nations now have a population growth sufficiently large to furnish each year many thousands of immigrants to the countries of western Europe. Whether the transfer occurs will depend largely on economic conditions, and

<sup>1</sup> Whelpton, P. K., 'The Population Prospect', *Proceedings of the Third International Conference of Agricultural Economics* 1934, p. 257.

on governmental rules and regulations.' Conditions and policies as they are in the United States and elsewhere indicate that even less immigration will be permitted than the present insignificant quotas.

More important numerically are another group who may be called semi-emigrants, namely a group of peasants who journey annually to other countries during the working seasons. For example, about 10,000 Bulgarian market-gardeners leave in February of each year for all parts of Europe and return in the late fall to their homes. At present Germany is importing farm labourers to some extent, but the total in all peasant countries effected by the above measures is very small. Within the boundaries of most of the peasant countries there is considerable seasonal migration of labour due to the fact that the younger peasants from the mountain sections, where the harvest is later, walk to the large farms in the plains and valleys to participate in the harvesting there and return with a small amount of money to supplement the meagre cash income secured from the home farm.

Much has been written about further development of industry in these agricultural countries and many solutions offered. Higginbottom,<sup>1</sup> speaking at last year's conference of agricultural economists, stated: 'I would like to take 30 per cent. of India's population off the land and put it into industry, and I would like to introduce farm machinery because that is the only way, as I see it, to raise the standard of living.' There is, to be true, a considerable amount of small-scale industry existing in all peasant countries and even a few large-scale enterprises, but we cannot feel very optimistic about any great increase in the degree of industrialization in the near future for a number of reasons.

The financial resources and structure of the countries, lack of technical knowledge and research and of skilled labour are, and will continue to be, heavy handicaps for competing with the west. Before embarking on industrial enterprises, the peasant countries must study the question carefully from the point of view of the local possibilities for the proposed industries and of the international trade structure. Much local and foreign capital has been dissipated in unprofitable and unwise industrial enterprises.

<sup>1</sup> Higginbottom, Sam., 'Discussion on Farm Labour and Social Standards', *Proceedings of the Fifth International Conference of Agricultural Economists 1938*, p. 246.

Moreover, it is becoming increasingly apparent that in order to sell agricultural products in Germany and other industrial nations the peasant countries must take the approximate equivalent of the products of the industries of these countries. This is not only true where payment is received on a compensation basis but where cash is paid by England and other countries, which also insist on reciprocity.

At present wage levels, industrial workers are on the average no better off financially than the average peasant, lack the security of home and food in case of unemployment, and work equally long and hard. A survey of an industrial section of Sofia shows that the average family secures an annual income of only 18,000 leva (\$180) per year, which is less than the average gross farm income given above. Social and labour legislation might force better conditions but would increase the cost of production, and artificial tariff rates, which now exist, would be forced even higher. On the other hand, much part-time home industry is developing, as for example canning fruits and vegetables on a local community basis. Silk-worm raising and preparing silk cloth and other examples of industry that can employ some people full time and others part time in peasant communities could be given. Many more people are now needed for transportation and marketing services.

Equally important is the inherent love of the soil and rural life on the part of the peasant. As stated by Tiltman:<sup>1</sup> 'The true peasant is he to whom the soil is sacred and the plough the symbol of life. The millions are peasants not by any accident of fate but by desire.' He quotes from *World Agriculture: An International Survey*: 'Farming in Eastern Europe is indeed a tradition, a way of life, a civilization, and any attempt to regard it merely from the cash aspect, essential as that aspect is, must fail.' Even though these pictures of peasant life and activity may be considered rather optimistic and sentimental, they will impress all familiar with peasant life as being fundamentally sound. To this we must add that the peasant has apparently little outlet apart from agriculture. Again it is a fundamental error to regard the terms peasant and poverty stricken as being synonymous. Every peasant country, region, and even village has peasants who must be considered as

<sup>1</sup> Tiltman, H. Hessel, op. cit., p. 18.



being well to do and living relatively comfortable and satisfying lives, when compared with the standard secured by city workers and even the majority of teachers, agronomes and other professional men and government employees. These peasants are the exceptions, but there are whole peasant communities in various peasant countries where this is the universal rule and not the exception. These particular peasants and peasant communities can be compared favourably with the average farmer of western Europe and even with a large percentage of American farmers.

This leads us to a discussion of the third solution, namely reorganization and improvement of the present small peasant farms, utilizing co-operative agencies to the largest possible extent. All peasant countries have educational and economic agencies working for the improvement of agriculture and rural life, and they are rapidly increasing in size and efficiency. An important factor in the improvement is the increased amount of contact with the peasant which gives knowledge of the actual problem and a better appreciation of the basic worth of the peasant and his realism. Formerly such workers came from the cities and towns as peasants could not educate their children, but the principle of mass education and equal opportunity is rapidly developing as is the desire for education. Schools giving simple, practical instruction combined with supervised practice are located in many communities and are widely attended; animal husbandry stations cease to be exhibits but concentrate on supplying breeding sires for peasant communities; agricultural science is being taken to the peasant in many ways which he can understand and accept.

The conservatism of the peasant is, generally speaking, an asset and a necessity in that it prevents him from risking his meagre financial possibilities on doubtful investments. Studies made by Professor Molloff and others indicate that peasant farms are often over-capitalized with regard to buildings and equipment as well as regarding labour, and that actually men with 1 to 1.5 hectares ( $2\frac{1}{2}$  to 3.5 acres) often have enough land to make a good living from intensive agriculture, employing all of the available labour over most of the year. Nor is the average peasant farmer lacking in intelligence, though he is in education, and he has ample desire for improvement if it is made possible for him to carry out the improved practices and they are demonstrated in his own environment.

The poverty and backward state of the peasant is actually an asset to the agencies working to help him to improve it, as he is acutely conscious of the need of improvement. Many have observed that it is often easy to double the income on a peasant farm through a few improved practices and reorganization which would enable him to use his surplus labour without much increase of farm inventory.

Professor Laur of Zürich has stressed the value of co-operation in peasant countries, and shown that it enables the small farms to bear comparison with the larger ones. We believe that small farms are likewise the essence of co-operative effort. The peasant farmer with two cows or buffalos, three acres of wheat, an acre of orchard, and fifty hens cannot own a bull, a threshing machine, grain drill, or incubator, but he can own and use one co-operatively with other peasant farmers. Great increases in production of wheat per hectare have been secured in peasant countries through disinfection of seed and use of seed drills for planting on a co-operative basis, plus planting a leguminous forage crop in the rotation. In the demonstration village of Zhiten near Sofia it was found that the value of the seed saved annually on the area planted with three grain drills was sufficient to buy two grain drills, and this practice is being rapidly developed elsewhere. Pure bred, disease-free chicks are being hatched by community incubators and sold to peasants at cost prices, which are much less than he has had to pay for hatching inferior chicks in the past. State nurseries sell fruit trees for a fraction of the former price. Community owned bulls are used to improve cows now better fed, decreasing the cost of milk production as well as providing enough milk for the family and the market demand. With an average production of 60-70 eggs per hen and 700-800 litres of milk per cow, few eggs and little milk were left at home, but now the production of 120-150 eggs and 1,200-2,000 litres of milk on the average in many regions has improved the farm family diet as well as increasing the farm income and permitting the purchase of products of local and foreign industry. Here co-operative effort has played an important role, giving the small farmer many advantages which the large farmer enjoys and at the same time giving him a vision of further benefits to be secured through still further development of co-operation.

Peasant costs of production are too high, marketing too poorly organized, and standards of quality not high enough, but these are improving and subject to further improvement. One might feel that improved agriculture would merely add to the present national and world surplus of wheat, corn, cotton, &c. But careful investigation of the situation shows that the area devoted to wheat and corn is being reduced and vegetables, fruit, dessert grapes, and other crops required by the industrial countries are being substituted together with forage crop production for animal feeding and soil improvement.

Vegetables and fruits are produced and sold at much lower prices and are being purchased by workmen, clerks, and others alike. Probably more attention has been paid to the foreign markets than to the local markets, but they are now developing. As shown by the food consumption table above, there is a large market on the peasant farm itself for its own products. This is equally true for the wool, cotton, silk, and linen produced there. It has been shown in Zhiten and elsewhere that an improved kitchen can be equipped for \$25, and cash incomes are developing sufficiently to do this over a period of one or two years. Here the agricultural and home-making services are working together with the local people in this development. In fact, artisans and carpenters are returning to the villages from which they came and building cooking stoves and furniture there for the peasants. Owing to the increased demand and volume of sales, products of foreign and local industries are also being sold cheaper as a result of the increased farm income. Here again the co-operative movement has filled a vital need. Hundreds of local consumer co-operatives in each country sell at lower prices because of large-scale buying by the central organization. Likewise most of the export marketing and some of the local marketing is done by co-operative organizations, alive to the need of standardized products of high quality. They are likewise prominent in developing insurance, saving institutions, and cultural and educational work.

Surplus agricultural population in peasant countries is and will remain a serious national and world problem, but the levelling off of population increase together with an intensification of agriculture and slowly increasing farm income, which is being translated into a higher standard of living, are making the situation gradually less

serious. The continued development of foreign trade will be a valuable factor, and one can be somewhat optimistic about this despite the present restrictions and the tenseness of the present international outlook.