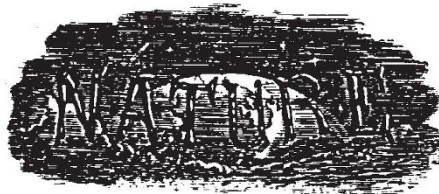


Editorial & Publishing Offices :

MACMILLAN & Co., LTD.  
ST. MARTIN'S STREET  
LONDON, W.C.2



Telegraphic Address :  
PHUSIS, LESQUARE, LONDON

Telephone Number :  
WHITEHALL 8831

Vol. 144

SATURDAY, DECEMBER 16, 1939

No. 3659

## THE PRESSURE OF POPULATION

THE word 'science' normally connotes physical and chemical science to the public mind and the lay press, to whom biological science is part of medicine, and it is not realized that there is also a science of world affairs and economic problems. Yet if the problems of peace, already beginning to be agitated, are not this time solved largely in a scientific manner instead of being left to politicians and international financiers, the result will be no better than the unsuccessful attempt at a new world which came into being after the ill-fated Treaty of Versailles.

Most of the immediate problems arise as the result of pressure of population, a phrase which is sufficiently elastic to extend to many problems, all of them capable of scientific analysis. One column of the daily newspaper informs us of the number of unemployed in Great Britain or in the United States, whilst in another there are statements in regard to the inevitable consequences of the fall in the birth-rate. The average citizen cannot make up his mind whether there are too many or too few people in England. He is at least aware of the economic conditions which make him unable to afford a larger family himself if he has to feed and clothe and educate them; he also knows that the absence of domestic help is another factor against the larger family. He cannot understand either, why there should not be ample work and a livelihood for a larger population in Canada, where there has been so much unemployment. In the end, he asks the question, whether there are too many people or insufficient capital?

This is a question which merits the attention of the man of science. There are many methods of approach to its study, one of which is the historical.

Something may be learned by a comparison of the state of development in England at the end of the eighteenth century and that existing to-day in the Balkan countries.

There was then a population surplus in England; indeed it was in 1798 that Malthus published his famous essay and predicted a sorry fate for mankind, which he pictured as growing faster than the food supply. Sir William Crookes was equally concerned about the food situation in his now famous address to the British Association at Bristol, only a year or two before the chemists learned how to make nitrates from the air and so put an end to any fear of food shortage. To-day the world can produce such an excess of the staple foods that their value, as the result of competition, shows no profit to the grower over the cost of production.

Statistics indicate a population of about 60 inhabitants per square kilometre for England and Wales in 1800, whereas, according to Prof. Ernst Wagemann, who has recently published (in German) a most exhaustive study of this question, that of the Balkan Peninsula to-day is about 62 ("Der Neue Balkan", Hamburg, 1939).

In 1800 conditions were very bad in England. Bad harvests, the ill effects of war, financial and trade disturbances brought the country near to famine and the brink of ruin. Large land holdings and pasturing were spreading and exerting pressure on the peasantry. There existed an ever-increasing agricultural population surplus which had to be cared for by somebody. In the Balkans this surplus exists to-day. The relative figures are significant. Only 63 per cent of the actual labour supply is being used; in Bulgaria at least 750,000 men could be withdrawn from agriculture



without injuring production. Some 114 persons are employed per 100 hectares of cultivated land against 50 in France and Germany, 17 in the United States. Life is said to be quite comfortable for the peasants who own their own farms.

The population density figure of 60 is small compared with highly industrialized countries; in Belgium it is more than 200, and it is clear that the Balkans are over-populated only in relation to their economic and technical development. As Wagemann puts it, they are "under-technicalized" rather than "under-capitalized".

It is desirable to stress the implication to Britain and British industry of this conception of countries with "too many people". It has long been the policy of Great Britain to expect the world, and her Dominions and colonies in particular, to produce foodstuffs and raw or quasi-manufactured materials, and to leave to Britain the elaboration of these in her technical industries. There are to-day "too many people" in several parts of the world and the belief is gaining ground that only by "technicalization", that is, by becoming industrial, can a balance be effected. In the British Empire we have perhaps opposed the trend too long; the Dominions at least are resolute in their intention to establish industries. It is true that their products cannot compete for cost and even for quality with those produced at home on a large scale and with long experience, but the Australian is prepared to put up with this and to tax English products to make them competitive in order to have work for his people.

The industrial apparatus of the world is already over-developed, and the older countries were, before the war, meeting with difficulties in selling their goods. Indeed it is clear that the solution of the over-population problem is to be sought least of all in the establishment of highly technical 'machine industries'.

The greatest possibilities in the Balkan countries lie in the introduction of crops which require intensive labour for their cultivation, such as tobacco, flax, hemp, rape seed, soya beans, etc., vegetables and fruit which are either easy to export or can serve as raw materials for domestic industries. Further, stable-feeding of stock can be substituted for pasture feeding. Humidity and fertility would permit much to be done in the above directions as the climate is favourable: irrigation and rational farming are claimed to make it possible to double the employment on the

land and the yield per hectare in south-eastern Europe.

Such a change would take many years to perfect, but it would largely solve the Balkan population problem and at the same time cause a great increase in the purchasing power of the farmers, which in turn would react on the industries of the countries.

The low intellectual level of the population may be measured by the small consumption of paper: less than 10 per cent of that in Germany, which in turn was much less than it is in the United States. The peasants hoard their money, a custom which still more restricts the amount of capital available for development.

It is not always realized how employment is adversely affected even in England by the very great difficulty experienced in getting money for new enterprises and new factories, especially on a modest scale. The complexity and cost of modern machinery and the regulations of the Factory Act make it almost impossible to start from small beginnings as in the past. Sooner or later a method of solving these financial problems of the small manufacturer will have to be discovered.

Here also there has been a tendency both on the part of banks and individuals to sterilize credit by placing money on deposit. The Government has been forced to finance much of the capital work of rearmament, and we are undoubtedly in consequence advancing towards the nationalization of capital. The pressure of population can only be met by the existence of enough credit to provide new enterprises.

There is much talk of freedom but very little of responsibility, of which we are only just becoming conscious. Democracy has "a responsibility to guide, to understand, to upbuild and to make a world of the twenty-first century" in the words recently used by Dr. Nicholas Murray Butler. Each one of us has a part to play, a responsibility; the one to invent new processes, a second to carry them out, a third to do the manual work, a fourth to find the capital moneys for their installation, a fifth to bring the products to the public. The chain is a continuous one, the links are of equal strength; if anyone fails to do his share there will be failure of the whole, and his is the responsibility. There need not be "too many people" if the responsibility is accepted: all concerned will have to work together much more than they have in the past. This must be done willingly and not under compulsion.