

thousands of years on the 'pia dura' or 'pia mater' (physiologists to the rescue!) of the brains of our 'rishis' were nothing less marvellous. And the modern deluge of 'printed devils' naturally makes me wish the whole fabric of the magical art of Fust and Gutenberg to have been consigned to the fire with other witcheries of the day. And lastly it is to be hoped that Edisons would not try to bring out cheaper and more durable nickel-paper but rather only under the seal of the secretariat of culture of 'the Parliament of Man, the Federation of the World' golden thoughts alone were to be bejewelled in true letters of gold to make the real millennium come.

POPULATION AND THE POVERTY PROBLEM IN INDIA.

(CONTRIBUTED BY PROFESSOR DEBENDRA NATH MUKHERJEE M. A.)

In India where almost one-third of the total population is unfed or half-fed and where the average income per head is hardly Rs. 2. a month, it is natural that the poverty problem is a matter of grave and serious consideration on the part of the Government and the people. In fact, the British Government from the beginning, and men like the late Mr. Justice Ranade, Mr. R. C. Dutt, Mr. Gokhale—men who could not shut their eyes to the miseries of their own people—spent a considerable portion of their time and energy in fighting out this problem. But the field of work is so wide, the difficulties are so immense, that their efforts, though not a total failure, are far from achieving any substantial success. It is impossible that the problem can be handled with all its corollaries at the same time. That is why one or the other part of the whole problem has been taken up separately so as to set land-marks towards the attainment of the final goal.

Frequent appearances of famine, dependence of the whole population on agriculture, constant failure of harvests, heavy indebtedness of the peasants and the most conservative and unenterprising habits of the people are some of the various causes bringing

the present distress and miseries of the people. The Government introduced Railways and Irrigation works as preventive measures for famine; the diversification of Industries has been pursued so that the country may not entirely depend upon agriculture; the Punjab Land Alienation Acts, the Co-operative Credit Societies Act, etc., have been passed and facile credits have been introduced to relieve the agricultural people of their indebtedness; the Primary Education Bill which was introduced by the late Mr. Gokhale but rejected by the Governor-General in Council was intended to awaken in the minds of the people a desire to learn and to make them more enterprising and ambitious. All these measures, though apparently ends in themselves, are really the means to attain the ultimate end, namely, the increase of the well-being of the people by removing their distress and miseries. How far these measures have been effective or are suited to the attainment of this object will be beyond the scope of this paper. I will only explain how far the increase of population in India accounts for the growing poverty of the people and how far the institutions of our marriage and marital customs and ideas are responsible for the growth of epidemic diseases and high death-rates in the society; and whether any change in the systems of our marriages can be the means of protection of our society from ruin.

It is more than a century ago that Thomas Robert Malthus explained that in every country population increases in a Geometrical, and food in an Arithmetical, ratio; hence there will appear epidemic diseases, higher mortality and miseries of the people unless the people resort to some artificial checks on the growth of population. We shall examine how far Malthus's law of population applies to the present conditions of India and whether the time has not come when prudential restraints on the growth of population should be imposed.

One American economist observes that although Malthus's law of Population has been falsified in the West by the developments in Science and although in the West now the problem is not how to feed the growing people but how to consume the wealth produced, yet this theory of population is found to hold good in India where

a year of rich harvest is always attended with a large number of marriages and procreation of children, while a year of failure of crops is accompanied by appearances of famine, outbreaks of Epidemics and high death-rates of the people. Mr. P. K. Wattal the assistant Accountant-General of Bombay, whose "the Population Problem in India" is an asset to all students of Indian Economics, has expressed a similar view. Malthus's anxieties have after the lapse of one century again appeared to be quite well-founded, and the reasonings underlying his theory seem to be well warranted by the present facts and circumstances of India. Population multiplying at a much quicker rate than food-supply in India has now, says Mr. Wattal, more than outreached the maximum capacity of India to feed her people. Now the absence of any practical necessity for artificial limitation upon the growth of population would be justified only by those who have shut their eyes to the terrible wastage of life that is going on every day round us. Appearances of famine, outbreaks of Epidemics, such as plague, cholera, etc., prevalence of malaria, high death-rates of the people, are all due to the fact that the population has exceeded the limit set by the means of subsistence in India. And this high increase in population is due to the defective institution of our marriages and our ideas and customs concerning them. To the Hindus who form two-thirds of the population, marriage is a sacrament which must have to be performed in order that one may be rescued from hell after death, quite regardless of the responsible duties of the parents; a Hindu maiden unmarried at puberty is a source of great social obloquy to her family and therefore she must have to be married to somebody, no matter whether the latter is in a position to maintain her or not. Amongst the Mahomedans marriage is no less common, not due to such ideas but perhaps owing to their association with the Hindus and for the fact that in the wife they find the best helpmate in their field-work or other drudgeries of the world. The following table will show the large number of marriages in India as compared with those in England although the income per head per annum in the latter country is twenty times greater.

		Age of 15.	Age of 20.	Age of 25.
Males	England ...	0 per thousand.	20 per thousand.	142 per thousand.
	India	60	321	591
Females	England ...	0	12	"
	India ...	200	800	"

From this large number of marriages, the consequence as can be anticipated, is that every year in India there is an increasing procreation of children. In the year 1911, the total number of births registered in India was 92, 09, 703 while in England it was 8, 81, 138 in the same year. These figures, calculated on the total population of each of these two countries, gives the birth-rate at about 39 per thousand in India and 24 per thousand in England and Wales. This increased birth-rate in India is to be attributed not to the greater productive powers of the females, as it has been found that the females of the productive age from 20 to 45 give birth to a larger number of children in England than in India ; this increasing procreation of children is therefore due to the systems of marriage prevalent in India.

There is no doubt that in India, the birth-rate is comparatively high and it is to be attributed to early marriages, the custom of polygamy, and the spiritual necessity of having a son. Some difference of opinion arises as to the question how far the growing poverty of the people with the increasing death-rate is the consequence of this growing population or some other forces. Mr. P. K. Wattal very strongly urges that it is the high birth-rate which is the primary cause of the growing poverty of the Indians, bringing in its train all sorts of Epidemics and high mortality. Hardly do the females attain puberty when they become mothers, with the result that not only their child-bearing capacity becomes soon exhausted, but their life is much shortened. Thus in India, the ratio of male to female deaths is 1,000 to 749 at the age of 5 to 15 while at the age of 15 to 30, it is 1,000 to 1,193. The males become married and usher into the world, a number of children at a time when they are hardly in a position to earn a bare subsistence. Being thus overburdened at a very early age, they not only fail to

properly feed and educate their children, but themselves being ill-fed, ill-clad and ill-housed meet a premature death. This is why the expectation of life in India has been gradually lowering, although in England, it has been gradually rising. This is clearly borne out from the table given below :—

Age.	England.		India.	
	1901	1911	1901	1911
0	44.07	46.04	23.63	22.59
10	49.65	52.35	34.73	33.36
20	41.04	43.67	28.59	27.46
40	25.65	27.27	17.91	16.01
80	4.4	4.04	3.07	3.06
90	1.15	2.32	1.69	1.23

Similar tables are also available in the census Returns of India of the year 1911 to show that the expectation of life has in the same way been diminishing of the females. The children are born under such miserable circumstances in India that their survival is a mystery. The figures given below demonstrate this fact beyond all doubts :—

Infant mortality under the age of one

	Per thousand.
Bengal	270
Behar	304
Punjab	306
Bombay	320
Madras	199
Japan ...	159.9
England and Wales	127.3
France ...	132.4
Germany ...	186.6

This high infant mortality, the exhaustion of the vitality of the females for their excessive fecundity at an early age, and the lowering expectation of life in India are solely due to the large number of births caused by our defective system of marriage. Mr.

Wattal tries to verify this proposition by the following table showing that high death-rates prevail only where there are high birth-rates.

Countries	Birth-rate per thousand.	Death-rate per thousand.
India ...	38·58	34·2
Germany ...	32·31	18·39
Japan ...	32·85	20·86
England ...	26·8	15·15
France ...	20·25	17·32
New Zealand	26·79	29·76

Mr. Wattal points out that in England, the birth-and death-rates are both low, while in India, the birth-and death-rates are both high. According to him it is this high birth-rate which gives rise to the growing distress of the country and the remedy "for this distressing state of affairs is fairly obvious—a diminution of birth-rate". He is at the same time conscious of the fact that the people unmarried become, as evidenced by France, reckless and dissipated in their habits, lose the force of their moral character and thereby shorten their longevity; so he goes on to say:—"marriage on the whole is necessary and wholesome, but the begetting of children is not desirable from more than one point of view." Mr. Wattal thus urges upon the artificial restraint on population as the only solution of this problem, firstly because emigration cannot materially bring down the excess of population from India, as emigration is something unknown to the home-loving Indians.

Secondly, the pressure of population upon the soil is already greater than what it can sustain. In an agricultural country in Europe, one acre of land has the capacity to maintain 250 persons, but in Bengal it is already 551. The major portion of the cultivable lands has also been brought under cultivation.

Thirdly, the industrial occupation cannot give according to him any relief to the agriculturists as the industrial development is found to give rise to greater pressure upon the soil.

I have already said that there cannot be two opinions that the birth-rates are comparatively high in India, and they are due to the institution of our marriages. But it is hard to believe that the growth of epidemics, high mortality and the growing poverty of the

people are due only to this high birth-rate, and the remedy lies in the artificial restraint on population alone and that any further increase of population is on no account desirable. Healthy and efficient people are always assets to a country; a country cannot be impoverished with an increase of population if it be accompanied at least by a similar increase in the productive capacity. In England, Germany or the United States material prosperity has been growing in spite of the continuous increase of population. In the last two Centuries science has revealed her control over nature and her great powers. The economic or material progress of a country depends more on the use we make of this science than on any other force. In England the mortality and the miseries of the people have been declining although the birth-rate is always on the increase. In England and New Zealand the birth-rate is almost the same, but the death-rate is quite different. Mortality in every country does not therefore necessarily depend on how many are born every year but on how the people live, how they are fed, clad and housed. The question of better feeding, clothing and housing, in other words, the question of a higher standard of life is therefore exactly the only solution for the present crisis. If the people have so much of education as to feel the necessity of a certain decent standard of living and if they can find opportunities to earn a higher income it is quite certain that the conditions of the country will change. It is more than pessimistic to hold that the present circumstances and economic environments in India do not permit any increase of the income of the people. France has shown how by the scientific process of cultivation the land can be made to yield more. Within twenty years from the time of the conclusion of the France-Prussian war, France by developing her agriculture not only paid her huge war-indemnity to Germany but became anxious to invest her capital in foreign countries. Agriculture in India is in a very distressing condition, Cultivation is unscientific, the peasants are unusually poor and immersed in debt, Water-supply is very meagre and rainfall is very uncertain; and the tenants have no interest in the soil, specially in the non-permanently settled districts of India. Thus all necessary

steps should be taken to develop agriculture in India. Scientific production on a large scale such as in the United States of America should gradually be introduced; education should be imparted to the agriculturists, the requisite water supply should be insured by a scientific process, agricultural banks should be developed and properly organised. Conversion of continuous tenancy into freehold as proposed by Sir James Scaird towards the end of the nineteenth century should be made or at least the permanent settlement with the right of occupancy and restrictions on the landlord's power to enhance rents as suggested by the late Mr. R. C. Dutt during the Viceroyalty of Lord Curzon, should be introduced so that the tenants may find it to their interest to make improvements on their lands.

It is really very strange to learn that the industrial development in India should mean greater misery to the people. The wages statistics of England and the United States clearly demonstrate the fact that the rate of wages does not fall, but on the contrary it rises with the greater development of industries and introduction of machinery. In India the introduction of machinery may mean the elimination of certain handicrafts but this danger is already come on account of foreign competition. Besides, it should be borne in mind that the handicrafts meet the demand of a particular locality but the factories, if well established, will meet the demand of the whole country; in the latter case, therefore, the demand for labour is likely to be much greater than in the former. The industrial development is again not to be confined to the industries which already exist in some form in India but it must be extended also to those which have no existence at all. Thus glass-wares, as suggested by Mr. Wagle, the glass-expert, leather-tanning as commenced by Dr. Nilratan Sarkar, nibs, pencils and penholders-making industry as started by Messrs F. N. Gooptu & Co., the match factories and paper-making industries can be developed in India as there are raw materials available in adequate quantities for each of these industries. Some of these were started during the *Swadeshi* movement and many of them have, indeed, already expired. But it has been pointed out in Mr. Swan's report on the industrial development of

Bengal that the causes for which those concerns had to wind up their business are all preventible causes. To show the possibility of the development of these and other industries in India would be beyond the scope of this paper. From the progress India has been making for the last 25 years in industrial development, it is hoped that if the business-enterprise of the people can be developed by the spread of education and the diffusion of knowledge together with the Government aids, and if efficiency of labour can gradually be attained with the accumulation of capital, there can be no reason why industries should not thrive in India as they have done in England, Germany, the United States of America and Japan. With such development of industries, Malthus's anxieties of which Mr. Wattal has said so much will disappear from India and the circumstances will present a quite different aspect from what it is now. The people will live in great opulence, epidemics will cease to break out, mortality will shrink and life will not be so short as it is now. The sun will then shine brighter and the people will live in plenty and peace.
