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CONTENTS

	PAGE.
The Journal	5
The Land System of Bihar—Gyan Chand	6
Agricultural Statistics of India—N. S. R. Sastry	28
Land Management and Economic Planning—Tarlok Singh ..	36
Future of Indian Agriculture—S. Kesava Iyengar	42
Government and Agriculture—E. R. Dhongde	56

Book Reviews :—

Royal Institute of International Affairs—A Food Plan for India—M.L.D.	65
N. Gangulee—The Battle of the Land—M.L.D. ..	66
P. N. Agarwala—Economic Planning and Agriculture—D.T.L.	67
Dr. Baljit Singh—Whither Agriculture in India ?—S.M.J.	69
M. N. Desai—Rural Karnatak—S.M.J.	70
V. Liversage—Land Tenures in the Colonies—S.M.J. ..	71
V. Balsubramanian—A Policy for Agriculture—M.B.D. ..	72
Government of India—Blue Books on Agricultural Economics—M.L.D.	74

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THE INDIAN SOCIETY OF AGRICULTURAL ECONOMICS
BOMBAY

AIMS AND OBJECTS

To promote the investigation, study and improvement of the economic and social conditions of agriculture and rural life through

(a) periodical conferences for the discussion of problems;

(b) the publication of papers or summaries of papers, either separately or collectively; or in a periodical which may be issued under the auspices of the society;

(c) co-operation with other institutions having similar objects, such as the International Conference of Agricultural Economists and the Indian Economic Association; etc.

THE FUTURE OF INDIAN AGRICULTURE

BY

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The thesis of this article is that agriculture is the industry of the greatest basic importance entitled to top priority in India as in any other country, but pronouncements and plans in India nowadays content themselves with mere polished words on agriculture (but for the solitary item of irrigation and hydro-electricity), while the wildest strides with regard to "industrialisation"* are being attempted—necessarily to result in the neglect of agriculture on account of our very limited available resources. A fifth of the human race with a third of the world's cattle, endowed with the Indo-Gangetic, the Godavari, the Krishna and the Cauvery river systems, the people of this country are living in abject misery not yet sufficiently described. The Woodhead Commission has, to a heartening extent, lifted the curtain, but most standards prescribed are inferior to jail standards. The chief causes for this deplorable state of affairs are the slavish imitation (and second fiddling by a section of Indian economists) of the views of British economists either with regard to their own country or about India through British glasses, the element of propaganda which has been mesmerising us into a belief that we are poor† and shall always be poor, the darkness in which

* By " industrialisation " is meant secondary production with high capital intensity and problems relating thereto are fundamentally different from those of secondary production with low capital intensity (cottage and home industries), the latter category being very well capable of development along with a prosperous agriculture. The former category necessarily involves high level friction entailing huge risks—so long as the movement of goods, capital and men all over the world is not free. And not a single country in the world is prepared, even on principle, to accept the theory of the abolition of all restrictions on the movement of goods, capital and men from any part of the world to any other part : even within the British Empire, such a freedom is absent, and when one observes the plea of the Indian industrialists for *protection* at home and free markets abroad, capital from abroad but controlled internally, one remembers the biblical sentence—" Do unto others as you would like others do unto you".

† In this connection, the Bombay Plan has completely accepted Rs. 65 as the *per capita* income — a figure which was arrived at for 1931-32 by Dr. V. K. R. V. Rao, but the estimate of the national income per annum from our cattle resources alone has been estimated at Rs. 1898.56 crores by Col. Oliver, formerly Animal Husbandry Expert at the I. C. A. R.—a figure very much higher than the cattle income according to Dr. Rao. Similarly, the annual income from cattle resources in the Hyderabad State has been estimated at Rs. 80.08 crores by the Director of Statistics—which gives *per capita* income of about *Rs. 50, but from cattle only.* To say that these estimates could not be taken seriously would be to earn the same compliment for one's self. To proceed seiously to planning without a proper collection and understanding of fundamental statistics would be like Proceeding to build without understanding and remembering toe levels of the ground. And that is how we are placed.

we have been kept with regard to our own potentialities (it is a huge court of wards process) and lastly the unnational plans and pleadings of the urban capitalists who have sacrificed national welfare for arm-chair profits all these years and are even now planning to pursue the same course with more courteous terminology.

II

The benefits that accrue from agriculture are quite plain and plentiful. First, there is the supply of material directly needed for man's consumption (food and clothing in full, housing in part). Second agriculture provides the largest amount of employment for the masses. Third, it yields financial profits to organised and equipped farmers. Fourthly, the health of the nation is improved and maintained at a high level, and lastly agriculture ensures an economic stability which is beyond the dream of industrialised peoples harassed by the Trade Cycle. For these reasons, first attention should be paid to the maximum possible improvement of our agriculture, and certain details connected therewith are briefly dealt with below.

The "ever normal granary" ensured through "buffer stocks" was agreed on at the Hot Springs Conference, with the object of developing a more or less identical standard of life all over the world, and secondly for abolishing the criminal distinction between the rural and the urban standards of life even in the same country. Of course, "granary" here means the maintenance of adequate stocks of **all** kinds of food-stuffs, not merely foodgrains. A great point to be remembered here is that within a short time after this war, the world needs for foodgrains could be properly provided for, the demand being comparatively less elastic. But the demand for **other** feeding material is highly elastic, and by the time the Hottentot in Africa (in Sir Arthur Salter's words) reaches the British standard of life, it might take at least some centuries. Thus, the urgency for increasing the production of foodstuffs and raw material for the making of consumer goods is great. The following two prescriptions for a "fair" standard of food for the Indian labourer, reflect the degree of elasticity in the term "fair."

The following adjustments might be made in a defective diet of this nature in order to make it adequate and "well-balanced."*

Raw milled rice	10 ozs.
Cambu	5 ,,
Milk	8 ,,

* The Government of India Food Department.

Pulses	dhal arhar	1 oz.	3	oz.
	black gram	2 „		
Non-leafy vegetables	brinjal	2 „	6	„
	ladies fingers	1 „		
	snake gourd	1 „		
	cluster beans	1 „		
	drumstick	1 „		
Leafy vegetables	amaranth leaves	2 „	4	„
	drumstick leaves	1 „		
Gingelly oil	Spianch	1 „	2	„
Fruits	Mangoes	1 „	2	„
	ripe plantains	1 „		

How very elastic the phrase "balanced diet" is in practice is evident from the figures given below. There is no reason why this standard should not be adopted for the lowest stratum of society in the whole country.

Balanced Diet for Labour*

A number of civil labour units are being raised for work with the Army in Field Service areas. Besides the other amenities made available to labour, these units will now be supplied with rations which ensure a balanced and sustaining diet. The prescribed standard scale is as follows:

	Daily Scale
Atta	24 ozs.
or Rice (undermilled or proboiled)	16
and *Atta*	8
Dal	$4\frac{1}{2}$
Ghee	$2\frac{3}{4}$
Milk fresh	6
Onions fresh	2
Potatoes fresh	4
Vegetables fresh	6
Sugar	$2\frac{1}{2}$
Cocoa	1
with sugar	1
and milk fresh	3
or Rum 25 U/p	2
Salt, rock or evaporated	$\frac{1}{2}$
Tea	$\frac{1}{3}$
Condiment powder	$\frac{4}{7}$
Meat fresh (with bone)	2
Tinned fish	$1\frac{1}{2}$
Skim milk powder	$1\frac{3}{8}$
Fruit fresh (citrus) or fruit fresh (non-citrus)	4
Matches Safety, Box	1
Compound vitamin tablets number	1
Oil kerosene 2nd quality per cooker per diem gallons	$2\frac{1}{2}$

* The *Indian Labour Gazette.*

III

In 1940-41, 97.9 million acres out of a total of 512.9 million in British India were shown as "other uncultivated land excluding current fallow," but another column shows only 9.25 million acres as definitely cultivable out of the former area. This latter figure was given in order to explain that **really** there was not much land available for additional cultivation. But this new classification is contrary to land revenue survey and settlement decisions on which the former figure was based. Any one who is well conversant with survey and settlement reports cannot agree to this light treatment of the findings therein. In fact, the bulk of these settlement reports constitute the most important data with regard to land potentialities with us. Apparently there might be sub-marginal lands and lands which are potentially good for cultivation but not immediately for profitable cultivation, but these categories of lands must enter the super-marginal group, once costs and yields are properly adjusted. And a very great deal could be done with regard to both costs of production and yields (taking into account prices also) by State policy. An example for this is the recent decision of the Bombay Government to take to mechanised cultivation of several lakhs of acres in the Dharwar and Belgaum districts at a cost of about Rs. 30 lakhs and thus reclaim land now infested by **hariyali** (deep and hard grass). Then, water is a better cultivator than man, and provided sufficient water is repeatedly allowed to stay even on craggy land, and repeated ploughings are given, such lands become not only cultivable but specially good for certain crops. Dry farming and the Russian method of curing seed under scheduled light and heat with a view to raise crops very soon, must bring many millions of acres in India in the dry areas to use. The British Agricultural Tribunal opined that productive forests can be established on ground unsuitable for agriculture, and certain countries are prepared to accept low returns on the first rotation if by doing so they can create additional forests. Afforestation aids agriculture through copious rains, by providing grazing for cattle and also numerous roots and fruits used by man apart from timber, bamboo and fuel. There are huge areas even now in this country which are deserted on account of malaria (chronic or epidemic), but studies made in the Punjab over the last 70 years and more show that it is possible to forecast malaria epidemics with regard both to locality and time. Once the malaria scourge is ended, the area under cultivation must increase by several million acres. One acre of water surface is more productive than an acre of cultivated land, and if only fishing is

scientifically taken to, the **de facto** acreage with us must increase a great deal.*

There are still other ways in which the acreage could be added to, **according to local circumstances** by pursuing cultivation in forest areas without prejudicing forest interests (wherever possible, with suitable crops), by utilising land unfit for routine cultivation but very good for special crops like coffee and tea (we have heaps of them yet unexplored—along the Himalayas and the Western Ghats), and by organising an exhaustive tree-planting campaign (specially fruit trees) in "areas not available for cultivation," for example, in urban compounds and open spaces and along river banks. Irrigation works† (big and small), —specially tube wells—drainage of water-logged areas and anti-erosion works must further increase the actually **used** area for agriculture. In the face of all this, the pessimism of the Department of Education, Health and Lands about possibilities of horizontal expansion of agriculture is persistent and pernicious and could be explained only one way: that Department repeats "instructions."

IV

We may now examine the scope for vertical expansion. How to make each acre grow more value? Here again, we have our pessimists by faith. We are told:

> "Indian land has become very much impoverished and it requires heavy chemical fertilisers to save the soil."

This is a piece of deductive logic with no connection with facts. The automatic recuperating faculty of land in fertility was recently emphasised at a Scientists' Conference in London and this was further illustrated by the results of experiments at Rothampsted Ex-

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* Some further details regarding acreage, yields, policy and prospects of agriculture in India are given in my articles: "Structure of Production and Rural Economics in India" in the *Indian Co-operative Review*, April-June, 1942, and "Industrialisation and Agriculture in India" in the *Economic Journal* of Britain, June-September, 1944.

† The *per capita* income in Sind has been estimated to have risen to Rs. 200—mostly on account of irrigation and wheat.

Apart from the Sone and the Damodar Schemes (the details of which are yet being examined), irrigated area will increase by at least ten million acres (numerous minor schemes are not included here) thus:

Hyderabad State (including the Tungabhadra, the Godavari, the Upper and the Lower Krishna Schemes	2.67 million acres
The New Barrage in Sind	5.00 „ „
Godavari (Madras)	2.00 „ „
Thungabhadra (Madras)	0.40 „ „
Total ..	10.07 million acres.

This is apart from the best scope for increasing Tank and well irrigation.

perimental Station. The same land was cultivated without manure, and the yield per acre increased over a hundred years from 8 bushels to about 13 bushels (of course, the use of suitable manures increased the yield on other lands from 8 bushels to between 34 and 35 bushels). We have the Tanjore deltaic area, the "breasts" of the Cauvery, where heavy crops have been reaped over centuries and millenniums without any manuring, and fertility is increasing. Man has been cultivating certain areas for over 7000 years for certain, but no need has arisen for 'replacement": the factor of depreciation is a very minor one (if at all present) in agriculture whereas it is one of the most important in industrial economy. This is not a condemnation of manuring, but only a reminder of Nature's agricultural potency. The Bombay Research Institute recently announced that fertile land showed signs of embarrassment at chemical manures whereas poor soils responded well. Manuring, a suitable rotation of crops, enclosure, double crops, mixed farming disease-free seed, sprays, inoculations, artificial insemination for rearing up live-stock, good in quality and in numbers,—these are other ways in which the crops and cattle of the cultivator could be protected and strengthened. The following account of increase of yield due to manuring by Dr. B. Narasimha Iyengar, a former Director of Agriculture in Mysore, reveals the vast scope in this country for stepping up the yield per acre immensely.*

A large-scale trial for paddy on 27 acres of private land, a few miles away from Hosa-Agrahar railway station on the Mysore—Arsikere line for the last 20 years, is a very good example of what can be achieved in channel tracts where there is a scarcity of either farm-yard or green manure. The land in question belongs to Rao Bahadur B. K. Garudachar of Bangalore and is being cultivated on the **varam or share system** by more than a dozen tenants. Under local methods of manuring, the area was producing about 300 seers of paddy per acre. When my advice was sought in 1924, I suggested a mixture of oil-cakes and superphosphate in certain proportions to provide about 12 lbs. of nitrogen and 18 lbs. of phosphoric acid per acre, and the mixture is even now being applied at the rate of 320 lbs. per acre. Depending on the price of materials, the cost per acre has varied between Rs. 25 and Rs. 15, but has again risen during the present war. Since it has also become difficult to get superphosphate at reasonable prices in recent years, bone-meal and calcined tricalcic phosphate are being used instead. Since crop

* *Mysore Information Bulletin.*

accounts of the middle period of 10 years have been lost or mislaid, only figures pertaining to the first and last 5 years are given.

Season	Yield of paddy in seers per acre		
	Maximum	Minimum	Average for the area
1924-25 ..	1,085	460	878
1925-26 ..	1,173	476	924
1926-27 ..	1,187	636	964
1927-28 ..	1,620	1,056	1,267
1928-29 ..	1,710	1,090	1,370
1939-40 ..	2,081	1,348	1,639
1940-41 ..	1,950	1,264	1,542
1941-42 ..	2,266	1,410	1,706
1942-43 ..	2,296	1,444	1,749
1943-44 ..	2,296	1,485	1,770

A glance at the above table shows that the yield has been steadily rising and shows a tendency to have settled down only during the last three years. As already mentioned, the average yield, before manuring with artificials was started was only 300 seers of paddy per acre, and it trebeled itself in the first year of manuring. During the 20 years of continuous manuring the average yield has again doubled itself, rising from 878 to 1,770 seers per acre. Another noticeabe feature is that the gap between maximum and minimum yield has been steadily decreasing in successive years. Where the maximum was more than twice the minimum in the first year, it has shown an increase of only 50 per cent over the minimum in the 20th year of manuring. Even the existing difference may be due to soil variation and difference in attention paid to cultivation by individual tenants.

The standard yield of paddy for the locality in which the lands are situated (Krishnarajpet taluka, Mandya District) is only 1,200 seers per acre. From figures given above, it is seen that even the minimum yield is above the standard yield while the average yield exceeds it by about 50 per cent.

The maximum obtainable yield of paddy under very good conditions in Mysore may be put down at 3,000 seers* or 5,400 lbs, per acre and it remains to be seen whether that yield can be obtained by the present system of manuring alone in course of time. The work incidentally shows the way in which soil fertility can be built up through a judicious system of artificial manuring, using only a

* Dr. Narasimha Iyengar deals here with the Mysore "seer"—a measure (paddy being light, a measure seer is somewhat less than the "standard" seer of 80 tolas.

small quantity of cattle manure and that too not exceeding three or four cart-loads per acre.

Coming now to various periods during the 20 years, the fourth year, i.e., the season of 1927-28 shows a considerable increase over the crop of 1926-27. The average for the whole area has risen from 964 to 1,267 seers per acre, i.e., by 300 seers or 540 lbs. per acre. As during this season, the variety of seed used was changed from local kaddi sanna to the variety G. E. B. 24 of Coimbatore, part at least of the increase has to be attributed to the new variety of seed used. At the end of the next period, that is, between 1928-29 and 1939-40, there has been an increase of nearly 270 seers in the average yield per acre. This can only be attributed to the building up of fertility in the soil due to continuous manuring. In the next period of five years, i.e., between 1939-40 and 1943-44 the average yield per acre has risen by 130 seers. This is just one-half of the increase during the last ten-year period, and works out to about 27 seers per acre per year.

The whole work is a good example of what can be done by an intelligent enterprising landlord to benefit himself and his tenants and incidentally increase agricultural production in the country.

Mechanised cultivation also has **some** scope in India, though not all over the country—in zamindaris,* in State, Co-operative and Collective farms (to be started hereafter, in the beginning as experimental measures). Although this might mean less employment of men per acre, the point to be remembered is that in agriculture the unhealthy effects of machine production are much less, if not absent, compared to the case of manufacturing industries using power. The following passage from Dr. David (quoted by the British Agricultural Tribunal) puts the essential difference clearly:

The tendency towards the simplification and automatising of human labour lies in the very nature of the industrial method of production. In agriculture machine-work is freed from these disadvantageous consequences for the bodily and mental development of the worker. The fact that the machinery for cultivation is move-

* Seth Walchand Hirachand has over 25,000 acres under modern methods of cultivation with a number of subsidiary industries around the sugar mill at Ravalgaon. He has over 3,000 dairy cattle. At a recent meeting of agricultural economists at Walchandnagar, he proudly and rightly observed:

I would like the agricultural economists assembled here to offer their comments if this co-ordination of agriculture and industry as adopted here is on the right lines and why this system should not be extended to larger areas in this part of the country as also in other parts, as particularly it does not cost anything to the Government of the country but on the contrary is a source of direct income to the State and indirectly is useful to the State and to the country in various other ways such as employment both to skilled and unskilled labour.

able, and must continually be moved along to where the labour is required, alters the whole relation of the man to the machine. The worker becomes not the servant but the director. And the direction of modern cultivating machinery usually involves more intelligence and skill than the use of the old hand-implement. Sowing by hand, when once learnt, is more mechanical than the proper use and direction of the machine drill. Mowing with a scythe is certainly an art, but even the stupidest man learns to do it by practice, while the man on the seat of a mowing machine can do a lot of harm through want of attention and intelligence. Some jobs with a threshing machine are certainly more uniform and soulless than the swinging of the flail. But the work of the flail lasts weeks and months, while the threshing machine task is incomparably sooner over.

No agricultural machine chains the labourer continually to itself as industrial machines do. What is continuous is change. Handwork and work with implements, work with implements and work with machines, make variegated alternation, often in the course of a single day. And at the same time the machine is moving, and man with it, in the open air.

If this be the state of affairs in a climate like that of Britain, what should be the welfare condition of Indian labour if and when millions of labourers sweat and gasp in mammoth industries? It has been the considered view of numerous British economists like Lord Keynes that industrialisation processes do not suit climatic conditions prevalent in countries like India. Even before the present war, housing conditions in industrial areas in the U. S. S. R. were highly unsatisfactory: the trouble was not of finance but of space, material and manpower for working adequate housing schemes. And the density of population in that country is quite thin—about 172 million people for more than 21 million kilometers —the bulk of it in cold regions.

Perhaps the most-dreaded contingency in the eyes of the farmer is the collapse of prices, but here again science has improved the situation substantially. Refrigeration, scientific packing and canning, dehydration, air transport, scientific preservation of green fodder, the dispersion of industry to raw material producing areas, the cultivation of rich crops (it is estimated that in Madras, the average yield of **jowar** is worth Rs. 10 per acre while that of tobacco works at Rs. 400 per acre), and lastly the "eat the surplus" plan now widely followed in the U. S. A. by which the Surplus Commodities Corporation in that country buys up excess stocks prevent-

ing the collapse of prices in the home market, and at the same time, adding to the rations to families on relief appropriate amounts of the excess stocks purchased by the Corporation, **free.** But in India, in 1930, thousands of farmers left their groundnut crop unpicked: the market price was so low that the cost of picking and marketing the crop would be higher than sale proceeds, and thus, good money would have to go after bad. In March-April, 1933, lakhs of bags of **jowar** were sold in villages at Rs. 2-8 a palla (120 standard seers) but no land revenue remission or postponement was even thought of. Even today, the hallucination of the Indian farmer (based on past experience) is that once the war is over, governments in India will wash their hands of any responsibility for farm prices: the price policy and administration being pursued here is not even elementary compared to the systems worked in Germany, Britain or the U. S. A.

V

Several means through which agricultural output, employment and financial profit could be increased very largely all over the world, specially in India, have been enumerated. It remains now to refer to agriculture and its relation to national health and economic stability. Fresh air and food, plentiful vitamins, sturdy physical exercise which keeps up top capacity for "enjoying" life—which is (in many cases vainly) sought for on golf grounds and on tennis courts, a close association with nature, a harmonious development of faculties endowed in man by Providence—all these are common experiences and demand no elaborate exposition, but for many "orthodox" economists, the following paragraphs from the Report of the British Agricultural Tribunal will probably affix the seal of sanctity:

That there continued down to the Great War I to be a marked difference between the mortality of town and country appears from the latest figures of the Registrar General. It will be sufficient to give the Standardised Death-rates per 1,000 for County Boroughs and "Rural Districts" for England and Wales for the last four years:—

	1911	1912	1913	1914
County Boroughs ..	16·6	15·2	15·6	16·1
Rural Districts ..	11·4	10·5	10·7	10·8
	5·2	4·7	4·9	5·3

The difference, it will be seen, is about 5 per thousand.

* * *

While it may be true that the standard of living of the agricultural labourers has been lower than the theoretical requirements for physical efficiency, it is equally true that arduous but varied labour in the open air and immunity from the unpleasant and vitiated conditions of town or factory life tend to counteract the effects of a limited dietary and to maintain, generation after generation, a standard of physique and healthiness superior, on the whole, to that of many other classes of manual labour.

* * *

In the progress of the division of labour the employment . . . . of the great body of the people comes to be confined to a very few simple operations; frequently to one or two. But the understandings of the greater part of men are necessarily formed by their ordinary employment. The man whose whole life is spent in performing a few simple operations . . . has no occasion to exert his understanding or to exercise his invention in finding out expedients for removing difficulties which never occur. He naturally loses, therefore, the habit of such exertion, and generally becomes as stupid and ignorant as it is possible for a human creature to become . . . . His dexterity at his own particular trade seems to be acquired at the expense of his intellectual social and martial virtues.

* * *

The are two lines of approach. It is pointed out by some that prolonged continuance of work of the narrowly specialised kind makes a disproportionate strain on particular nerve centres, and thereby creates "fatigue"—this fatigue showing itself, among other ways, in lessening output.

The other line of approach is more definitely psychological. It is pointed out that in normal human life there are apparently a number of **"major instincts,"** which call out for satisfaction. The art of life is the harmonising of these instincts. If, instead of utilising or guiding or transforming such instincts, they are merely repressed and "inhibited," then harmful consequences follow. One of these instincts or impulses is towards "self-expression;" towards what is variously described as "workmanship;" as "doing something on one's own;" as "seeing the result of work." And this instinct, in the confinement of repetition work, is being constantly thwarted. This aspect of the problem is thus summed up by Professor Irving Fisher of Yale:—

The instinct of workmanship has been all but crowded out. . . . . While attending so closely to the product, we have forgotten the psychology of the producer—while making one man perfect in one

point and another in another point, we have sacrificed the satisfaction of both. The monotonous nature of the work, and the fact that the workman does not see his product, are the characteristics of modern industry which cripple the effort instinct could put into the work and which are responsible for dissatisfaction and unrest.

* * *

On economic stability by paying due attention to agriculture, the words of J. R. McCulloch are enlightening, and every one of them deserves very careful chewing by our "industrial" champions:

Manufactures and commerce has, indeed, been beneficial "down to a certain point" in promoting freedom and civilisation.

But . . . the beneficial influence of manufactures depends, in a great degree, on their being subordinate in point of extent, to agriculture and other more stable business; and there is much reason to fear that their influence is of a decidedly less salutary description when they constitute the paramount interest."

He is pulled in two directions—

The facilities for the production of cottons, woollens and hardware cannot assuredly be too much extended; but it does not therefore follow that the cotton, woollen and hardware manufactures of England may not be disproportionally extended, or rather that they may not be so increased as to place a large proportion of our population, and with them the best interests of the country in a very hazardous situation; in the same way that the safety of the largest and best built ships may be endangered by crowding too much sail.

He has no solution to offer. "Perhaps it may, in the end, be found that it was unwise to allow the manufacturing system to gain so great an ascendancy." With prophetic instinct he realises that "all questions of this sort will, for a lengthened period be decided in the negative."

VI

We now proceed to the "green room" of the theatre (if not the villain of the piece), namely, policy pursued by governments in India towards agriculture. In very plain language, governments in India have been the arsenal of *laissez faire*, that is procrastination and do nothing. (The U. S. A. is said to have been the arsenal of the democracies). The earlier Kipling attitude was given up with the Linlithgow Commission. But Indian agriculture was made to face world competition without any consideration of costs, very little was done to free the cultivator from the uncertainty of rains,

and in matters of taxation policy, purchase policy and social relief the line of least resistance and the law of contract were the method and the scripture. The Agricultural Commission came and went. The I. C. A. R. has long since passed the stage of childhood, and yet, governments in India have not still made any contact with the **de facto** peasant. On rural education, housing, medical relief, transport and marketing, the peasant has been left severely alone. During the inter-war period, "discriminating" protection was given to a number of manufacturing industries, but **in fact**, that was fundamentally indiscriminate. The rack-renting permanently settled zamindar has often been accused of neglecting his responsibility for improving the lands in his charge. That charge applies with much greater force to governments in India for collecting land revenue somehow and doing very little for the improvement of land. State ownership of land in India has proved a dog in the manger. In matters of land tenure and farm credit, revolutionary changes are called for before any tangible improvement can be achieved in Indian farming. If only agriculture had been given proper attention during that period, our health, self-respect and power of resistance should have been much higher than what it has proved to be during the present war. Sir Ardeshir Dalal has put the objectives of his industrialisation policy thus:

Government consider that the fundamental objects of industrialisation are three-fold: (i) To increase the national wealth by the maximum exploitation of the country's resources. It is well known that there are considerable unused resources of man-power and material, and clearly Government policy must be directed towards stimulating their fullest and most effective utilisation. (ii) To make the country better prepared for defence. The experience of two wars has demonstrated the dangers, both to India and to the rest of the Commonwealth, inherent in India's dependence on overseas supplies for vital commodities required for defence. (iii) To provide a high and stable level of employment. At present the volume of industrial employment is, comparatively speaking small, but if the country's industrial resources are developed to their maximum possible extent, industrial employment, including employment in ancilliary trades and professions, will considerably affect the volume of total employment in the country. Government consider that their industrial policy should be directed towards maintaining employment at the highest possible degree of stability and volume. It is axiomatic in Government's policy that the additional wealth created by industrial development should be distributed in a manner that may

be regarded as socially equitable: powers must be taken and consciously used to secure this purpose.

This statement should be perfectly sound provided agriculture were accepted as the most basic of industries: without this, the policy should prove a shell without the kernel. There is nothing original in this note, and some might say: "everybody knew these things." Well, these are home truths well worth remembrance.

In any case, the mania of "Industrialisation" with all its implications of dependence on foreign capital and control (and foreign raw material and markets), must be put in the incubator* until we have regained our breath after this war. We may close with the words of J. R. McCulloch with humility: the industrial revolution has been too recent to be committed to beyond one's grave: the "backwardness" and "dependence" of agricultural countries is a thing of the past: it is dead even before the liquidation of empires.

Certainly our experience is at present far too limited to enable any one to cast the horoscope of any great department of industry; and notwithstanding its vast importance the solution of this class of question must be left to the economists of some future age.

* The stage of mature thinking would be reached when the champions of industrialisation accepted the ideal of abolishing unskilled labour and making maximum efforts to enable the small-scale independent owner-worker to secure the economic advantages of the industrial revolution, thus freeing society from maldistribution and eternal conflict : in the words of Henry A. Wallace, Commerce Secretary, U. S. A.—" by newer and different methods encouraging every wage earner who has it in him to rise from the bench of the employed artisan to the desk of the self-employing businessman ".