

GANDHIAN ECONOMICS

A Supporting Technology

Ram Swarup

Sponsored by

The Appropriate Technology Development Association (India)

Lucknow

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I

Prosperous Agriculture

In the reconstruction of India's economy, and for that matter of the whole of the East, agriculture holds a premier place. But writers on planning generally devote their pages to a discussion of industries, domestic and foreign capital to start those industries, principles and dynamics of this industrialization and labour to provide the motive-force for this process, and make a grudging reference to agriculture as a subsidiary and secondary activity. Their attention is caught by huge factories, huge finance, and the attendant unrest and labour movement. In this glare they fail to see the humble activities of hundreds of millions of men and women, working in their small way, but, in aggregate, making up the real India. Unless they are touched, unless something is done that helps them and makes their efforts more productive, gigantic industries at a dozen centers will hardly touch the real problem. If we can raise the standard of living of the broad masses of people without disorganizing them, if we can make their lives more prosperous, happy and free, gigantic factories will know how to take care of them.

But somehow our economists do not see this at all. For one reason, their education is extremely defective. They are brought up on Western Economics, which is not related

* In this essay are collected extracts from the author's *Communism and Peasantry: Implication of Collectivist Agriculture for Asian Countries*, written in 1950 and published in 1954.

at all to Asian problems. It is a pitiable sight to see them sweating in calculating the rate of national savings, accelerated by internal inflation, supplementing it by foreign loans, and making it available for investment in what they call heavy industries. Others, more up-to-date in their studies are furiously calculating the Keynesian multiplier and hope to start a chain-reaction of prosperity by manipulating this multiplier. Other economists will like these methods to go hand in hand with a wise policy of bank rate and open money-market operations by the Reserve Bank. We should have nothing to do with this barren tribe of learned mediocrities. Not that they are particularly incorrect, but they are utterly irrelevant, completely wide of the mark.

So, willy-nilly, we shall have to look for guidance elsewhere. Fortunately that guidance is available in the person of Gandhiji, one of the greatest men of our age. He saw by intuitive insight into our sickness and its cure. Without having to do with tables of costs, returns and national income, he saw the costs and returns of different economies, their relative durability and value, moral and material, ecologic and economic.

Agro-Industries

A prosperous agriculture is the key to prosperous India and a prosperous Asia. But attending to the needs of agriculture does not mean neglecting industries. In fact, no discussion of agriculture is complete unless it includes a discussion of industries. This is for various reasons. Agriculture is double-faced. One face is turned towards nature, vegetation, forests, soil, climate, irrigation, drainage, flora and fauna; the other face is turned towards society, landlordism, credit, marketing, inheritance laws, prices, industries, etc. In the latter group, the relationship between agriculture and industry is important. For one reason because agriculture is both a supplier and a consumer of

industrial goods. Much of industry consists in processing agricultural raw materials, and all persons engaged in industry have to be fed. The relation between these two sectors is so intimate that a distorted organisation of industry is bound to distort agricultural production. This is clear. Present industries are so voracious and gluttonous that no amount of agricultural production is sufficient to assuage their hunger. America with vast spaces and overflowing farm production, according to Colin Clark's calculations, will become an importer of primary produce. Similarly, according to the same authority, Russia with twice the land of America and with agricultural machines created at the cost of millions of lives, by the same date, "if the trend towards industrialization continues, will also require to import substantial quantities of food".

Large-scale and Round-about Production

Owing entirely to an accident of history, mechanization and technology took the direction of capitalist development. This development is made up of two elements—one is centralisation of the means of production, facilitated by industrial exploitation in large-scale units; the second is the growth of a 'roundabout' mode of production which consists in the multiplication of what are called capital goods or production goods.

The first point is easy to understand. Certain types of invention led to centralised production, though there is nothing in the nature of mechanization as such that it should be usable only by a cluster of people under one roof. There were inventions and discoveries long before capitalism, some of them more important in their social repercussions than anything ever invented or discovered in the last few centuries. The inventions and discoveries of the bow and arrow, fire, pulley, ploughing and harvesting were fateful, but they did not lead to centralisation and conglomeration. It is possible in the present times also to

invent techniques and machines of a type that can be worked by individuals in their own cottages for their own benefit, very much on their present pattern of living, with sizable increase in productivity. There is nothing in the nature of the principles of mechanics that stands in the way of this development, a development which combines decentralization with high productivity and high consumption per individual.

The second idea presents difficulties. The general idea is that capital goods are “productive”. These are made up of huge machines, machines to make more machines, till the cycle is complete. Round and round.

In popular as well as academic thinking, these capital goods are incomes representing national wealth; in our accounting they are costs representing an arbitrary imposition on the labour and material assets of society, unless they can be translated into consumption goods. To illustrate, let us take tractors. Popularly speaking—in the sense of being popular amongst the learned professors of economics—tractors are incomes; in our way of thinking they are expenses, unless it is shown that these expenses lead eventually to more food over and above the expenses, material and labour expended in making tractors.

II

Principles of a Good Production System*

A genuine and healthy standard of consumption is achievable. An effective production system to realize that level of consumption is available without creating more problems than it solves.

The first thing to do is to cut clear from the lure and temptation of the kind of economic production system that prevails in Western countries, a dialectified version of which is offered by Soviet Russia.

The first principle of a good production system is that it is not divorced from things of human consumption, but is related to them; that it is not autonomous and self-feeding. The present economic system of industrialism is productive in the sense that it produces many things. But those things are not related to consumption. They are there to feed that particular system itself. For example, one cannot help being impressed by the hugeness of the London transport system, thinking the production system that has created it and has made it possible. But at a closer look one finds that eighty or ninety per cent of it is used up in taking people from their residences to their places of work and back again, and taking the house-wife from home to the marketplace and back. In other words, the huge transport system does not represent the consumption needs of the community at all, but has to be there to support and feed

* Extracts from *Communism and Peasantry* continue in this article too.

the particular economic system that has created it. That is true about much of our present production, production which dazzles our eyes, but which is so little related to our consumption needs.

In other instances where things produced by this economic system do enter into our consumption, at least quantitatively, the relation is not of a qualitatively significant character. For example, in 1909 an American citizen consumed 3,560 calories. After 35 years of intensive industrialisation, during which period there has been, according to all authorities and statistics, a large increase in the 'food industry' of the country, in the year 1944, he eats about 3,460 calories, about the same quantity. In both years, vitamin values and other constituents remained practically the same. Then what has increased and multiplied in the 'food industry' ? Cutlery, spoons, knives and napkins. The Standard of Living ! Progress !

There are other instances where the indirect mode of production enters into consumption negatively. Not only does the system feed on the multiplicity of goods it produces with the sole purpose of consuming them, it even eats away goods produced for human consumption. For example, in Russia what are called 'off the market funds', constitute quite a sizable part of the total consumption goods. In 1931, they constituted 43.69% of the total output of consumption goods. In 1932, 43% of the sugar was withdrawn from consumption and was used in production industries.

There are other instances of an equally serious character. We have discussed machines and "production goods" which, if they are no good for producing consumption goods, at least produce other machines and capital goods. But there are machines which are useless, even in that direction. They produce nothing. They exist because they are in fashion and because our ideas of the reality and utility of things are optical and tactile; because

certain things are so solidly and visibly there, we mistakenly think that they must also be useful. The physically existent should also be economically and productively existent, that is how our unconscious mind argues.

As we have seen, tractors in Russia belong to this category. They enter into Russian agriculture by way of increasing costs of production and damaging the soil.

Tractors tend to approximate to the concept of pure costs as they move eastwards into the overcrowded Asian countries like India, China, Japan, Indo-China, Indonesia, Ceylon, Malaya. Here land is limited and population unlimited. There is an abundance of labour in relation to cultivable land; so tractors lose even that advantage which they have in the West, namely, supplementing human labour and making it possible for a farmer to cultivate more acreage than is possible otherwise. In Russia this advantage has not occurred to any appreciable extent, but with a monopoly of a large part of the globe's land surface, it may be possible at some future date.

The circular nature of this production system is not realized because the same monetary illusion which obtains in consumption obtains in production. Because we have produced exchange-values, we think we have produced use-values. Because we have produced production goods, we think we have produced consumption goods. We have a mode of production that needs a long and expensive vocational training, and after we have provided that training, we call it education. Our mode of production creates slums, creates a city population divorced from any means of production, living on the sale of their labour from day to day, in the fear of unemployment, old age, sickness, etc. And when we do something in the way of clearing those slums, removing those fears by instituting schemes of insurance and benefits, we congratulate ourselves and look with bewildered eyes and pity on societies which have no

slum clearance programme, no sanitation, no insurance schemes, no unemployment benefits, because those societies have no slums, no insanitary conditions, no unemployed.

Things which should appear as costs of a particular system, appear by a perverted system of measurement as its income and benefits. Keynes dimly perceived it when he said that total national expenditure of a nation is equal to its total national income. But instead of bemoaning this fact, he admired it. That is why instead of suggesting a mode of production which gave us more income without incurring more costs, he taught us to incur more costs in order to have more income. Instead of telling us how to have more consumption goods, he told us how to have more production goods. Income through costs—that was his formula.

It is possible, thanks to this system, for machines to multiply and consumer goods including food to decline both at the same time. Aldous Huxley expresses this point powerfully in his recent novel, *Ape and Essence* : “Up goes the spiral of industry, down goes the spiral of soil fertility. Bigger and better, richer and more powerful—and then, almost suddenly, hungrier and hungrier. Yes, Belial foresaw it all, the passage from hunger to imported food, from imported food to booming population and from booming population back to hunger of enormous industrialized proletariats, the hunger of city dwellers with money, with all the modern conveniences, with cars and radios and every imaginable gadget, the hunger that is the cause of total wars and the total wars that are the cause of yet more hunger.”

As it is possible for food to decline and cars and radios and money to increase, as has been happening in many Western countries, forcing them to live increasingly on imported food and raw materials, similarly it is possible for cars and radios and living accommodation and income

moneys to decline, and coal and iron, tanks and tractors, offices and factories and investment money to multiply. These different processes are quite compatible. Up goes the spiral of production, down goes the spiral of consumption. There is no contradiction, no inconsistency, no incompatibility.

The second thing to remember is that a system can be productive in one sense at one level and can be exploitative in another sense at another level, both simultaneously. There is no contradiction between the two in a world where things exist on multiple planes. Both these phenomena can occur. And they occur in the present industrial economy. Some things produced are cheap on the economic level, but are costly on the biotic and geologic levels—levels which are intimately and permanently related to the welfare of man. This welfare is not expressible in money terms alone. But somehow we make the mistake that there are no costs except costs expressible in terms of money prices, and no welfare except a welfare which shows itself from moment to moment.

Preoccupation with monetary equations may conceal those costs, but it remains a fact that most of our economic activities today are costs and shifts of costs which, because of the curious and tautological definition of income, create income in the process. The shifts are from areas where they are economically expressible to areas where they are not, from areas where they show themselves immediately to areas where they show themselves slowly, from areas where the link is direct and visible to areas where it is indirect and less distinctly visible.

To avoid exploitation and exhaustion of our resources, we must have a system of production which does not use up a lot of our accumulated capital, natural or social, and is capable of yielding the same amount of consumption goods with less capital. It is possible to do it.

Further, our economy should be such that it is renewable every year. We should so arrange our affairs that what we take from nature we give back. Unless our relation to our environment is of a symbiotic character, and unless we stop being parasites on nature, the chances are that we shall crash sooner or later. We must realize the bio-economic nature of our environment; we must realize how plants and animals live as interactive members of a biotic community, how interference at one point leads to wider imbalance and disequilibrium; that much of what currently goes under the name of "progressive agriculture" is not agriculture proper at all, but is an extractive industry, mining away the soil, leading to erosion on a vast scale, gullies, infertility, deforestation. We cannot go on very long on this basis. What is more, we need not go on this way at all if we so choose. We can maintain and increase our level of consumption of right kinds of things with right kinds of ideas and planning.

Both these principles imply a right use of our land resources, food and other crops raised from the soil, and what we then take from it we give back in the shape of manure composted out of human and animal refuse. Around this basic activity is built up a system of agro-industries, the farmer, singly or in groups, converting his produce into consumable goods with the help of immensely improved and efficient small machines within the means of local finance. Around this system of agro-industries should be built up those heavy industries which are ancillary to the first and second. There is a vast difference between this world in which agriculture and manufacture for consumption are primary and heavy centralized industries auxiliary, and the capitalist and communist world in which heavy and centralized industries are primary and consumption industries and agriculture are auxiliary and incidental.

Our Picture of the Indian Economy

We want a revitalized agriculture carried on by independent peasants on land fed by organic manure with traction power supplied by the bullock.

The cow is an important feature of this type of farming, not only because it supplements the nutritive sources of the country, but also because it feeds the land with its manure and provides a cheap source of power for traction and transport through its progeny. Besides, farming and livestock cannot be divorced from each other except at the risk of a great deterioration in the fertility of the soil.

This system of agriculture should be supplemented by cottage industries of types which produce for local use, thus utilizing the spare time of the peasantry in gainful occupations, and making use of local resources.

This 'core' economy made up of essentially independent farmers could profitably carry on cooperative tasks, like bulk-purchasing and selling, cheap credit, insurance, education, etc.

This economy is not opposed to machines and power. But it will prefer those machines and power which do not replace human labour, but make it more productive.

In bringing about this economy, while the help of friendly nations should be welcome, it should be ensured that it is aid of a type which takes into consideration the specific pattern of India's development. We cannot make much headway through the traditional capitalist methods.

The real alternative to this capitalist pattern is not communist but a decentralized economy made more productive than it has been in the past from handicraft level of production to machine-and-power-using decentralized mode of production. Communism, as we have seen, is only an accentuation of imperialism.

The economy that we have described, based on the labour of people working in small units for their own

consumption with their own labour, made many times more productive than it is at present by developing a technique suited to it, will rationalize our production. It will abolish the need to cut away our forests and hew away our coal because we are making things that can carry, fetch and haul things that can cut and hew, round and round.

It will also rationalize consumption. By having a decentralized economy and by creating power and machines adapted to that purpose, we can have a standard of living healthier and better than we have at present at a cost (calculated in terms of human labour, health and material resources) very much smaller than now; we will be healthier and happier because our consumption will not be divorced from the needs of our body and mind, and our production system will not be divorced from our way of living.

This economy alone provides the basis of that structural and functional decentralization of our society which is the only guarantee of our freedom.

This way of life alone will take into account the more permanent and long-term interests of humanity, maintaining soil fertility and mineral resources which we are using up in a criminal orgy of what we call industrialism. This way of life alone will ensure that we live in a mutually beneficial relationship with our biosphere and nature instead of being their plunderers and parasites we are today.

This is a task which will need the ingenuity, devotion, sacrifice, effort and thought of all political parties.

Rationale of Consumption

Today politicians and economists are not pursuing the end of a healthy level of consumption, but are pursuing a legendary, will-o'-the-wisp "standard of living" and "national income" which is not a measure of things healthily consumed and happily produced, but is a measure of services and commodities exchanged. The more the

exchange, the more the national income tends to inflate. For example, if people look at the sunset and enjoy it, sing and dance and are happy, and live in a smokeless atmosphere, there is no measurement to take these factors into account. But if they become professional painters, singers and actors working and singing for an income, production and income figures rise sharply, to the cheer and glow of the economist and the demagogue.

In previous times, and in many economies even now, there are things which are not expressed in money-terms, which nevertheless are enjoyed without creating national income. But now in many economies these items enter into exchange and add to the national income without being enjoyed.

Because of this highly fanciful measurement, people like Raman Maharshi, Sri Aurobindo or Plato, whose words and whose presence soothe and satisfy hundreds of people, are economic unproductives, parasitically living on the labour of others, while the whole band of professional lecturers, teachers and psycho-analysts, many times spreading more disease than they cure, are classed as producers, contributing to the income of the nation. A monetary illusion created by too much emphasis on exchange has been promoted to the status of a science.

A Choice Before India

India has the choice either to develop the above pattern or to borrow patterns from the West. The Soviet model holds a fatal fascination for some of its leaders and parties. But Bukharin has this to say about it: "Psychologically, we, who at one time had advocated socialist industrialism, began to regard with a shrug of the shoulders, with irony, and then with anger at bottom, our huge, gigantically growing factories and monstrous gluttons which consumed everything, deprived the broad masses of articles of consumption."

III

Circular Production

One suspects that the present system of production suffers from a good deal of 'circularity'.

We are made to believe that first we produce "producer goods", and then these goods produce "consumer goods"; that we put together different factors of production and different quantities of raw-materials in one kind of combination at one end of the stream and receive them in a different combination as consumer goods at the other end. But the connection between the two streams, on a deeper enquiry, may turn out to be no more than an untenable assumption or a pious hope. The first stream could be very swollen and could use up a good deal of what it produces in order to maintain itself. Its contribution to the second stream which is supposed to flow from it could be very meager indeed. In fact, in certain cases, at least from a theoretical point of view, the contribution could even be negative.

Expressed in simpler terms, we produce coal in order to produce iron, in order to produce zinc; that the 30 or 40 such basic goods or industries as symbolized by coal, iron and zinc produce one another and consume one another in a crescendo. Round and round. Thus while production figures are rising up and employment is increasing, a nation's living standards may even be falling. Or, at least the rise in one case does not keep pace with the rise in the other. In other words, we may have adopted a very expensive method of increasing our living standards when

they do rise. I believe that the basic insight is true. But one wishes that it could be proved or disproved; or rather, if any circularity is discovered, its exact nature and extent is quantitatively determined.

This could possibly be done in this way. We should select 40 or 50 important commodities which are not directly consumption goods but which are supposed eventually to produce them. Things like coal, iron, aluminium, office space, a good deal of transport, power, metals, etc. Then find out by a sort of double entry reckoning system, how much they enter into the production and consumption of one another. These commodities considered as producers could be entered on one side; and the same commodities considered as consumers could be entered on the other.

The treatment should not be in monetary but in physical quantities. This chart will show to what extent a particular system of production or a particular national economy within the same system is circular; what quantities of production are needed for the self-maintenance of the system itself; if these quantities are large or small. If these quantities are unreasonably large, they have a lesson for all countries, but more specially for older countries which are launching their industrialization plans in the hope of improving their living standards. Such a computation may also give us a more accurate method of measuring a country's national income. By this method we could also measure the exact amount of 'circularity' of different economic systems or of different economies of different countries.

The idea if true could prove revolutionary. It has the seed of bringing about a revaluation in our economic thinking. It will provide new tools, new concepts, a new frame of reference, a new way of looking at our economies. It will influence ideas on economic policies, concepts and practices of economic planning in Asian-

African and Latin-American countries. Even in the Western countries, they may find that much of their economic 'well-being' is illusory, and much of their production figures conceal hidden costs; that their present living standards could possibly be achieved by a more direct method of production at lesser costs in both economic as well as in terms of Nature's accumulated resources and with lesser pollution of our bio-sphere.

The new insight may also throw light on phenomena one increasingly meets in newly developing countries of increasing poverty with increasing industrialization.

Thus the new standpoint provides a macro-view of the economy as a whole, a vantage point from which to view the total economy. Hitherto, the evaluation has been of a particular firm or sector. But the above analysis may provide a standard of evaluation for the economy as a whole. This should help every nation.

For the sake of clarity, the foregoing thought could be expressed in terms of a formula popular amongst Marxist writers. The formula is:

$$C+V+S=W$$

This formula could be used to analyse the value of a single commodity, or a particular industry or the total economy itself. Even by extending the connotations of the symbols beyond their original meanings and by making them conform to the present-day uses, they do not lose their relevance.

The formula itself says that the total value of the national product (W) is equal to the outlay on machines, raw materials and their depreciation (C), outlay on wages and salaries (V), and that part of the national income which goes to the owners of production whether it is called dividend or interest or rent (S).

Let us now divide the total economic activity in two departments; Department I produces means of production,

and Department II produces consumption goods. Then we have:

$$\begin{aligned} \text{I} \quad C_1 + V_1 + S_1 &= W_1 \\ \text{II} \quad C_2 + V_2 + S_2 &= W_2 \end{aligned}$$

In the above, C_1 and C_2 represent capital in the production goods industries and consumption goods industries respectively; similarly V_1 and V_2 represent wages and salaries in the two departments; S_1 and S_2 represent the incomes of owners of means of production. Now, though the two departments produce two different kinds of goods, both use capital goods which are produced in the First Department; both employ labour and other workers giving rise to personal incomes which are spent on consumption goods produced in Department II; similarly both generate incomes of owners of production. These are also spent on consumption goods under the conditions of Simple Reproduction which has been assumed here but part of which could also be saved and invested under conditions of Expanded Reproduction. But that would make no difference to the analysis.

Now the equilibrium conditions are:

$$C_1 + C_2 = C_1 + V_1 + S_1$$

which is fulfilled when the demand for constant capital in the two departments ($C_1 + C_2$) is equal to the supply or production of Department I ($C_1 + V_1 + S_1$).

The second condition is when

$$V_1 + S_1 + V_2 + S_2 = C_2 + V_2 + S_2$$

that is when the incomes spent on consumption of the workers and the owners of means of production ($V_1 + S_1 + V_2 + S_2$) absorb the product of Department II ($C_2 + V_2 + S_2$).

Simplified, the 2 equations are reduced to

$$C_2 = V_1 + S_1$$

The above formula expresses equilibrium conditions for Simple Reproduction, but with suitable modifications it does quite as well in expressing equilibrium conditions under Expanded Reproduction too. In the above equation, one is struck by the following:

That while C_2 in Department II exchanges with V_1+S_1 in Department I, C_1 in Department I and V_2+S_2 in Department II never enter into the stream of inter-departmental exchange, they are produced and consumed in their own departments. If so, then the important thing is:

- (1) to find out the magnitude of C_1 . If C_1 is inordinately big, then we shall be justified in saying that to that extent our production system is autonomous and self-consuming.
- (2) Secondly, we shall have to evaluate, quantitatively and qualitatively, C_2 . If C_2 increases the productivity of V_2 and S_2 sufficiently enough even to effect the outlay on V_1 and S_1 , then alone expenditure on it could be justified in the economic sense. In this kind of accounting, Department I constitutes cost of the system, and that cost has to be justified if it increases the productivity of Department II.

The presentation is here formal and it could hide several pitfalls. But it has the merit of bringing out in the open certain important aspects of our economy which otherwise remain hidden or neglected. Now these must be brought out in the open and discussed.

The presentation is in purely economic terms. But there are larger considerations of ecologic, philosophic, moral and spiritual nature which have a practicality of their own. For example, we may find our present economic system wasteful and expensive particularly in terms of the accumulated capital of nature. This is important if questions like the permanence of a particular culture are also considered.

But our attitude should not be anti-industrialisation for its own sake. If one pattern is unsuitable, we should develop another. Our people are poor, and there is crying need for increasing their productivity. How this is done is a separate question. But even an answer to this question is implied in the discussion of the problem with which we set out.

Further, no nation could neglect, except at the cost of its survival, skills and techniques known and mastered by other nations. Therefore, India cannot be indifferent to industrial techniques obtaining among other nations. We will have to master them and assimilate them. In fact, they would be inevitable even if they were wasteful, if we do not produce anything better.

IV

Comparative Costs of Products of Two Technologies

(A)

1. The face of India is fast changing. The country has changed quicker in the last 20 years than it did in a whole preceding century.
2. Different people will interpret this change differently according to their ideological predilections, but a few features of this change stand out prominently: market forces are increasing, and the spirit of self-reliance and Swadeshi is yielding place to a spirit of dependence and slavish imitation.
3. We are borrowing our pattern of consumption from America and Europe, and our pattern of production from Russia and East Europe. In neither there is a spirit of Swadeshi, nor an agreement with the ethos of the people.
4. In this kind of development, the initiative lies with the Government and with those who command

* Here the term 'Two Technologies' has been used in a broad sense to indicate two types : large-scale and small-scale. But under the same type, a commodity could be produced by multiple methods at the same cost. One method could use more men, another more capital. These are important considerations in the capital-short and unemployment-infested countries of the East. The planners should study the exact quantities involved in the production of various single goods by different technologies proposed.

considerable resources. A man with average resources continues to be passive and unaffected except by spirally rising prices generated by inflationary finance.

5. Also, under this pattern, consumption of the masses—consumption of food, cloth, sugar, etc.—remains static, but the consumption of a westernized elite through which plan money is channelised is phenomenally increasing.
6. Under the impact of these new modes of production and consumption, new states of mind and new social relations are emerging. One finds the upper class pervaded by a new spirit of hedonism and commercialism, and the poorer class by a spirit of revolt and hatred. The accumulating animosity between different social classes and regions augurs ill for the country. For any perceptive mind, we are sitting on a volcano and the situation may explode sooner than we think.

(B)

7. The new pattern of industrialisation is recommended because it is claimed (i) that it produces more and (ii) that it produces cheaper.
8. Both these claims have been widely accepted, many times even by the Gandhians. Their objections to this pattern are mainly moral, aesthetic and spiritual. These objections embody great truths which are immediately connected with the quality, health and even the survival of our culture; but with the new generation that is emerging—impatient, outgoing and insensitive—these objections will weigh less and less. Also, living in a low plight, it is but natural that the new man bends his ears to doctrines and ideas that promise him economic relief and amelioration.

(C)

9. Now, let us turn to the two claims made for the Western type of large-scale production. It has a certain deceptive appearance but we must look beyond appearances.
10. The system is conceived in huge proportions and it is always on the move and is turning out huge quantities of goods and commodities. There is no doubt, therefore, that in a certain sense the system is productive. But this may not be the sense which is important to a citizen as a consumer.
11. Perhaps much of its production is autonomous, circular and self-consuming. It tends to pile up production figures without raising, at least, in the same ratio, living standards of the people. Things are produced, a lot of which never enter into the stream of consumption but are used up in the self maintenance of the system itself. Exchange values are created which never get converted into use-values. Coal produces iron and iron produces coal. Round and round.
12. This provides a new way of looking at the present industrial system. This presents a very interesting and instructive field of study and may lead to some revolutionary conclusions.
13. A note on this point has already been presented under 'Circular Production'.

(D)

14. The modern, big-scale system of production also claims to produce things cheaper.
15. This could be a second interesting and useful study. It would be interesting to compare in terms of their

costs to the consumers the supply of such things as shoes, food, textiles, sugar, pottery, agricultural implements, medicines, etc., as produced by big industries and as produced at a more modest technological level or/and on a smaller scale by producers in villages and towns.

16. If we make this study, then we may find that it is difficult to maintain the thesis that things produced by big-scale, complicated machine-using industries are always cheaper.
17. To illustrate the point, let us take shoes. Everybody knows that the shoes made by Batas are more expensive than shoes made by small operators. But a proper study as suggested here should put the investigation on a quantitative basis. Each two items compared could be given durability tests and their respective qualities determined, before their respective prices are compared. Perhaps the processes and stages of their manufacture and distribution under the two technologies could also be studied and the comparative "economies" and "diseconomies" of each corresponding stages indicated. This will help correction on action level. Batas claim that they give employment to 12000 (or 18000) people. There is no mention of the unemployed they create. Any proper study should take into account this unemployment potential of a modern industry.
18. For further illustration, let us take agricultural implements. In this connection, we made enquiries and we were astonished at the results. A friend who spent his best years in public work recently took to manufacturing small agricultural implements by employing a few indigenous blacksmiths. We have the following information:
 - (a) *Maize Thrashing Machine*: Capacity 20 quintals an hour. When labeled "Escorts" or some Calcutta

firm, it sold for Rs. 900-00. The friend sold it for Rs.450-00.

- (b) *Wheat Thrashing Machine*: Small sizes varying between 30" to 36". The wheat thrashed on 7 H.P. motor power is about 40 Kg. per hour. This friend manufactured 60 units last year and sold them for Rs. 800 to 900 per unit. The same is sold for Rs. 1000-1200 in Punjab and U.P. when factory made.
- (c) *Disc Harrow*: Bullock driven which gives 6 furrows at a time. This friend sold it for Rs. 180 a piece.

This friend says that his team could also manufacture tractors, tillers and other machines, but they completely lack capital and credit facilities.

In all these products iron and other raw materials used are the same as in the factory made products. Performance is also the same. The difference is in the finish.

19. Besides shoes and agricultural implements, the proposed study should include other items like textiles, sugar, foods, oils, beverages, pottery, utensils, compost and fertilizers, hosiery goods, fountain pens, radios, fans and many engineering products, etc.
20. The list is indicative rather than exhaustive.
21. On the face of it, the study appears to be simple; but it is bound to be difficult and ticklish. At every stage, the researcher will be faced with value judgements which a study of this nature should avoid. If the two things produced by the two technologies satisfied the same need and the same prestige value, cost comparison was easy and meaningful. But if they belonged to two different value-systems, and different prestige values and different degrees of acceptance attached to them, then comparison would be a difficult thing. A person will buy a prestigious thing at a higher price and not buy another at a lower price

even if it satisfied the same need. It is a matter of fashion, taste and prestige.

22. In certain cases it would be difficult even to establish proper correspondences and decide on comparable magnitude. For example, herbs. They have an economic aspect and cost structure. But they derive their values from the medicinal systems to which they belong. In comparing the cost of a herb in the two systems, we shall be compelled to compare the two systems themselves, a subject which a study of this nature is not competent to undertake.
23. Similarly with regard to items connected with education and recreation. It is admitted that modern systems of education and recreation tend to be expensive. But meaningfully they can be compared, system for system, and not in terms of costs of a few items of common use. Such a comparison is really a revaluation. This interpretive and revaluation work is really the task of a larger cultural view of life, but it is beyond the intention of this study.
24. Yet the proposed study, in spite of its difficulties and limited intentions, is not without its advantages. If it shows, by a study of selected items, that products of big, highly specialized industries are not always cheaper in terms of their cost to the consumers than the products of handicrafts and small-sized and medium sized industries, then we shall have made a good case for a decentralized economy run by people without uncommon resources of capital and talents at their command.
25. In those cases where the advantage lies with the system of large-scale production, it will be good to know its extent. For then we can hope to overcome the disadvantage.

V

Gandhian Economics

Dear Professor Dr. Jean Thomas,*

Your Draft Survey on Economics is quite comprehensive. It provides room for discussion of all economic topics and concepts. But a blanket praise like this will be of little use to you and you are probably looking for a more critical approach and appreciation. In this intercultural discussion, you would probably also like a fuller ventilation of regional needs and views. Economic principles may be universal but they are modified by regional, cultural and historical factors.

It is also possible that our mutual discussion may throw up new ideas and help up to look at things in new ways and we may come upon concepts which are even better than the ones we have known and they may even have an application to the needs of the more developed countries as well.

As I have said, your disposal of the subjects is excellent but every classification distributes its emphases differently. I shall personally prefer one which provides greater

* The letter was written on 6 November 1974 to Professor Jean Thomas, a distinguished French economist. It was in response to a paper which Prof. Thomas had sent out to various members of the Institute of Inter-Cultural Research, a Heidelberg-based, co-operative organization of scholars from different parts of the world with the object of promoting inter-cultural understanding. Dr. Thomas is the Chairman of its Economic Section.

emphasis on some of the concepts hitherto neglected or not sufficiently emphasized.

A usual text-book of our university curriculum begins by stating its assumptions in the first chapter and also pointing out possible objections to and limitations of those assumptions. But from the second chapter it begins to develop its subject in a way as if those objections did not matter. This is necessary in the interest of a fruitful discussion but a proper classification should help us to discuss different assumptions fully and show how altered assumptions give rise to altered principles of Economics.

Let me state what is in my mind more concretely. I would prefer a scheme of classification in which certain ideas which can be conveniently grouped round the term 'Gandhian Economics' can be more fully discussed. The term takes its name after Mahatma Gandhi. His status as a saint and a champion of India's independence movement is well-known but that very reputation has eclipsed his name as a great economic thinker. It is true that he did not put his thinking in the language of the scholarly world. His thinking was intuitive. He thought by a kind of feeling. By an act of sympathy, he entered into the hearts of his people and gave voice to their needs and expressed the essence of the situation.

I believe that Gandhian Economics gives a fundamental framework of ideas, an alternative conceptual scheme.

Experience shows that inter-cultural dialogue on economic questions has little scope because all the major concepts are borrowed from the West—whether they are concepts of capitalism or socialism or communism. Asian countries have no ideological face of their own. Their traditional economies are in retreat and they seek salvation only in western patterns of development and within western conceptual schemes. So an inter-cultural dialogue tends to be merely a monologue and opinion-differences are only a ventriloquial illusion; it echoes the same thoughts

even when it draws its participants from the East. But the dialogue need not be that barren and one-sided if it discusses certain major ideas thrown up by thinkers like Mahatma Gandhi even though those ideas have not yet become part of the curricula and thinking apparatus of the scholarly world.

The modern industrial economy is subject to increasing criticism; this criticism forms a natural part of the landscape of Gandhian thinking for it grows naturally from the first premises of Gandhian thought. But Gandhian thought is not content in merely criticizing. It tries to establish, to show a way out, to suggest an alternative way of organizing our economic thought and economic practices.

I believe that the concepts of Gandhian Economics are relevant to all the developing countries and have an increasing bearing even on the problems of the developed nations but I would not like to presume too much and shall speak only as an Indian. Other colleagues could speak for their own regions, in terms of their own experience and predilections and intellectual persuasion.

Gandhian Economics does not merely deal in fundamental concepts and fundamental criticism, it also includes in its repertoire such practical problems as the strategy of economic development for less developed nations, the true concept and criterion of economic aid, the problem of a right type of Technology for a world living on its accumulated capital.

Gandhian Economics

Just now, I am not writing a thesis on Gandhian Economics but I should say enough to indicate its scope and to bring out the contrast between it and the prevailing concepts of Economics.

1. Traditional Economics assumes that man is an economic being. As a consumer, his choices are informed by a hedonistic calculus; as a producer, his aim is to

maximize his profits. On these assumptions, traditional economics builds up an intellectual apparatus which is both an interpretation as well as a justification of prevailing economies. This it does with the help of various kinds of curves meeting and intersecting each other in a way that most important demands are satisfied first and things go to those whose need is greater than those of others and limited resources are put to alternative uses in combinations that minimize costs, maximize profits and give the best results.

This kind of thinking is under a cloud today but it has a valuable kernel and it cannot be dispensed with without creating a chaos in production and consumption. It emphasizes two great truths: that the consumer should have a say in what is produced and that production should be cost-conscious. It provides a standard of comparison, a method of computation, a rough and ready mode of judgment and criterion between two uses. When the human mind understands so little of the forces by which it is surrounded, an impersonal criterion however inadequate is a great help.

The Gandhian Economics will not deny the value of above concepts, but it would like to supplement them with a few more considerations. In Gandhian thinking, man is more than an economic being. Economic problems have their legitimacy but not supremacy. While satisfying his legitimate economic demands, man should also live for harmony, beauty, truth and knowledge.

2. According to traditional economics, a man has unlimited wants. In Gandhian thought, a man has limited wants and as Socrates used to say, the satisfaction of some wants is more important than that of others. A man should have a lively sense of what is healthy, primary and useful and what is merely pleasant and attractive. It means that there is an order of primacy in wants. A society should produce for satisfying the legitimate needs of the many before it produces for satisfying the whims of the few.

3. Gandhian economics stresses community of interests, not conflicts. All should work in the spirit of harmony, in the spirit of making their contribution to a common good. 'Input' and 'Factors of Production' are terms which do not find favour with Gandhian thought. For, these terms are too mechanical and smack of an exploitative spirit. We are participants and partners in a common venture. Labour is not just for hire and fire. It is a precious partner. Gandhian Economics will like to create an economy in which we have use for one another's talents and contributions and not an economy where the vast masses and their talents become redundant by some impersonal, unknown market operations. To my mind, the problem of the east is not over population, but a people who have no longer any use for their own talents, skills, resources. They want to be saved by skills, technology and resources imported from outside.

4. Not only should men work in harmony with each other but they should also work in harmony with nature and its elements. We should be kind to the animal world and cooperate with nature. We should not exploit them. We should not pollute the mother earth. We should not use up our soil and destroy our forests and foul up our waters and use up in a few centuries wealth accumulated by nature in millennia. The Gandhian Economics says that we should work with renewable resources, in a way that what we receive with one hand, we give back with the other. In the language of the Gita, Economics should be a Yajna, an act of participation, sacrifice and renewal, giving back what we receive. For giving is ultimately the secret of receiving.

5. In Gandhian Economics, economic activity is informed by ethical considerations. A rich man is a trustee. He produces for all, not only for himself. He is rich by the amount he shares with others and not by the amount he amasses.

6. But this sharing should grow out of the culture of the heart and the flowering of the soul and not dictated by a

soulless bureaucracy or a Moloch State or a self-righteous part.

7. At the heart of Gandhian thinking is the small man, the man with his individual skill, capital and initiative. It is local production for local use with local resources. It is an economics of decentralization, of independent workers.

Not that it rules out large-scale production altogether but its bias is in the direction of small-scale production, decentralisation. Its emphasis is not on Corporate production, nor on state ownership but on production by families and small groups in their own natural environment working with their own resources and following their own rhythm of life.

Foreign Aid

A new economics is coming into being: the economics of developing countries. In a way, it is not new for it has given rise to no new fundamental concepts. It tends to be an appendage of Western economy and Western thought. Its intellectual fare is the usual clichés: Population, rate of saving, capital formation, multiplier effect, free enterprise versus state ownership, foreign aid, etc.

Obviously, we cannot discuss all the concepts here. But needless to say that Gandhian Economics will have a great deal to say on all these and other related questions. For example, take the question of foreign aid. According to current thought or at least policies and practices, Western industrialization provides the model; the developing countries could do no better than imitate this model at all costs and by all methods, by stealing or begging or borrowing.

But on this question, Gandhian Economics will have this to say: First, that we can rise by our own efforts, own skill; secondly, that the recipient countries should not be turned into the image of the donor countries but that these countries should develop and adapt according to their own

genius and needs. I believe that this process of adaptation could be a very productive process and could even give rise to a new Technology which is relevant even to the needs of the West.

A New Technology

A technology is a powerful thing. The way we produce and consume things influence our social relations, thinking and feeling as Marx observed. A Gandhian Economics, the economics of decentralization, local production and independent workers, is not possible without developing a technology appropriate to it.

In the last 200 years, a technology has come into being which favours centralization, large-scale operations and circular production. Whether this technology is as efficient as it appears to be is a moot point. You have already seen my note on 'Circular Production', which seems to point to a different view. But the point I wish to make here is this, that there are other technologies possible which work for decentralization, for individual and local production and yet are as productive and as efficient as the best that we know. If we cannot evolve this Technology, Gandhian Economics will remain a dreamy stuff, soothing to the ear and warming to the heart but ineffective and irrelevant. But if an appropriate third Technology is developed, it could be a great constructive force. It could help development in the East without vast disorganisation and uprooting and other evils which accompanied industrialization in the West. It may even offer a solution to some of the problems which the West faces in its own pattern of development. This pattern is no longer beyond questioning as it used to be. Now it is increasingly coming under suspicion. Many thinkers regard it as extremely costly and feel that it is leading to a blind alley and very soon it will lead us to exhaustion, material and moral. The new third Technology may provide the answer, a way out.

And here could be something to do for the Institute of Inter-cultural Research. It could be more than a clearing-house for ideas. It could become a work-shop for new, radical innovations and practices. There is a world to interpret and a world to create.

The letter has already become quite long and I think I should stop here. But I want to make a few things clear. First, one will not find the ideas on Gandhian thought as given here in any book on Gandhi. But I believe that the ideas as developed here are in keeping with the ethos of Gandhian thought.

Secondly, Gandhi's thinking was not analytic. His genius was for synthesis. But I believe that his thoughts can also be presented in analytical terms, even in the language of scholarly economics.

Thirdly, the discussion is illustrative, not exhaustive—just to show how different assumptions give rise to different view-points and different standards of evaluation and different yard-sticks and theoretical apparatus and practices.

At the end, I may add that I am not out to prove or disprove anything. I believe that Gandhian ideas should be fully discussed with a view to find out if there is anything good in them and if they are workable. I am fully conscious that while philosophical ideas can be a help, they could also be a bar, a drag. And I do not want any ideas, even Gandhian ones, to retard economic progress of the people in the East who live in unbelievable poverty.

I give below for what it is worth a possible classification under which different economic concepts could be discussed. The classification also provides a larger human framework of which economic ideas form only a part.

I. Spiritual Premises

1. The concept of man; the aim of life;
2. The unity of life; Environment; Biosphere; Ecology;

3. Work; recreation; self-discipline; service; worship; self-transcendence.

II. Economic Premises

1. Different Economics:
 - a. Economics of Perfect Competition—classical economics;
 - b. Economics of Imperfect Competition—Corporations and Monopolies;
 - c. Economics of Collectivism and State-ownership;
 - d. Gandhian Economics—Economics of small farms, local production, small industries and decentralization;
2. The concept of Progress; what constitutes progress;
3. Basis of a permanent culture and stable economy; renewable resources; purity of environment and elements; conservation;
4. Investigation into different kinds of technologies; Concepts of 'Cost' and 'Resources' change with the change in technology; the relevance of a new technology to the solution of the problem of poverty in the East and of over-exploitation of resources in the West;
5. Labour; trader; technocrat; entrepreneur; craftsman;
6. Prosperity; sharing; equality; welfare; opportunity; inter-dependence;
7. Taxes; government spending; controls;
8. Honest currency;
9. International Aid and Trade;
10. Food; Population.

VI

America's Aid to India*

“We help them to make the most of their natural resources. We do this not by building elaborate plants but by such things as enable the Indonesian (selected as an illustration) farmers to help themselves, to have better tools and to use better methods than they have known before. We must see their problems from their point of view. We must help them so far as we can, to reach their own goals”

— Acheson at a White House Conference, February 1950

The question of American economic help to Asian countries is, today, in the forefront and, from the way it has caught the minds of people in both countries, it is obvious that sooner or later this help would materialise.

While the situation is engaging increasing attention and has already become a matter of mutual conversation, persuasion and, to an extent, recrimination, it cannot be said

* Some observations made in a letter written in 1950 to a friend in the U.S. *Inter-discipline* reproduced it in its spring issue of 1975. It being the period of the Emergency rule, the paper had to be changed a little in order to assuage the sensibilities of the Censor. The observations were made in the context of an Indo-American Friendship Society. The idea was that the American side of the Society should sponsor Eastern adaptation of Western Technology, instead of sending out food parcels during distress periods. The reference to the Friendship aspect was dropped.

that the question about the nature of this help and the circumstances and shape in which this help can alone be fruitful has been discussed. In fact, it is doubtful if there exists any realization whether the question is worth discussing and worth finding out at all.

We see American technology and American prosperity and readily assume that the two things inevitably go together and that if we in Asia bodily lift some of the American big machines and factories and implant them in our countries we shall also be on the way to prosperity. We forget that American technology and big machines work in a certain economic context and in the absence of that context they may not only be fruitless but positively harmful.

Different techniques and developments in one sector are related to developments in other sectors and they all make an organic whole. One cannot have one rate of growth in one sector and another rate in another sector without creating problems of grave maladjustment. For example, India imported modern methods of banking and commerce without imbibing modern industrial technique with the result that our capitalism today is not industrial but commercial, financial and speculative; which means all the price fluctuations, instability and cornering of western capitalism without any of its advantages.

American help in order to help must come into an organic relationship with India's main economy. If this does not happen this help would remain extraneous and an artificial graft. It may create great problems: social misery, shifts of population, deserted sites on one hand and new slums on the other.

American help will try to shape Indian economy in the image of American technology which may not at all be suited to the resource-pattern and man-land ratio of India. So the problem is that of technical adaptation and transcription. American skill and techniques while not

directly applicable to Indian conditions can be made useful by a little rationalization. This rationalization would most probably involve not making bigger machines but smaller ones.

We have to remember the following points

1. In terms of volume outside help can never be decisive. It will always form a very small fraction of the total internal resources and effort. So this help can be helpful only if it stimulates the activity of people engaged in their daily work and increases their productivity. In short, the aim should not be to create a small industrial enclave within an economy of essentially low productivity but it should be to give and have the kind of help which increases the productivity of our small peasants and craftsmen working at a million points;
2. Find out existing machines and techniques of greater productivity wherever they exist—whether in America, Japan or Scandinavia—more directly assimilable by India;
3. Adapt large-scale techniques of America to small scale use by India. This may mean setting up some research and engineering centres;
4. In one sense, this work would be of far more than immediate importance. For the first time, it will be possible to test and find out on a large-scale what Science and Engineering and Mechanics, turned away from centralization and concentration of production and distribution, can achieve when consciously applied to the purpose of having a decentralized, individually-operated society of free members working in small units, on land and factories with appliances which can be made from local resources.

5. While machines and techniques for small scale use and application should be found and invented, there should be no opposition to large-scale machines on principle. Wherever they can be used with profit they should be adopted.

Just Published

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E.F. SCHUMACHER

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