

## Problems of Economic Development in India and Other Underdeveloped Countries in Relation to World Affairs

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The following is the transcript of the lecture given by Professor Prasanta Chandra Mahalanobis F.R.S., Director of the Indian Statistical Institute, on November 22, 1958, as one of the Monthly Lectures at the House. Professor Mahalanobis visited Japan from November 12 through December 11 as a guest of the House under its Distinguished Visitors Program for 1958. Mr. Shigeharu Matsumoto chaired the meeting, and the audience consisted of about ninety persons.

	population in millions	national in- come in billions (10 <sup>9</sup> ) (US dollars)	Income per person per year (US dollars)
1. Japan	90	21	\$ 230
2. World (about 1956)	2650	1040	380
3. NATO Powers and advanced neutral European countries (Sweden, Finland, Switzerland, etc.)	400	550	1400
4. Warsaw Powers (USSR, Poland etc.) and China	900	300	330
5. Sub-total of (3)+(4)	1300	850	650
6. Remaining half	1300	190	150
7. Asia and Africa (excluding Japan and China)	1000	70	70
8. India	400	24	60
6. Top 5 percent of world	135	325	2400

I do believe that we are passing through very grave days in international affairs just now; perhaps the gravest since the cessation of hostilities; the danger is not acute at present, but conditions may suddenly become acute. And I do believe, coming myself from an underdeveloped country, that the problem of the underdeveloped countries, the problem of economic development, has a very crucial significance in international affairs today.

As perhaps will not be inappropriate for one who is closely associated with the field of statistics, I shall start by inflicting on you some figures to give something like a broad, quantitative appreciation of the level of living of human beings. As the blackboard is handy and I did teach for thirty-three years and still happen to be professor emeritus, I think I should use it. Just to start with, as a basis of comparison, I may use Japan as a kind of yardstick with its population of 90 million and income of \$230 (or about ¥83,000) per person per year.

In the table I shall be over-simplifying to some extent, and I should also give the warning that incomes are difficult of comparison because of differences in such things as purchasing power and the year of reference, so the above figures must be taken in a very broad sense. For the world's population I am putting 2,650 million in line two, not because the fifty has any meaning but to indicate that it lies possibly between 2,600 million and 2,700 million. Line three shows the highly industrialized countries of the world, which would mean really the NATO powers *plus* the European countries which are neutral but highly industrialized such as Switzerland, Sweden, Finland, etc. This 400 million is about one-seventh or one-sixth of the total population of the world and this 15 per cent of the world's population has 55 per cent of the world's income. Line four shows the

countries of the Warsaw Pact and China (the mainland of course) with a population of a little over 200 million for the USSR, about 100 million for East Europe, and about 600 million for China, which makes a total of about 900 million. These are countries in which industrialization is taking place very rapidly and which have an average income of \$330 per person. Now, line three and four taken together make half the world which are highly developed or which have started developing at a rapid rate and have an average income of \$650 per person. The population of the remaining half of the world which is broadly underdeveloped is 1,300 million as shown in line six, with an average income of only \$150 per person. Of this half, the population of Asia and Africa, but excluding Japan and China, would be about 950 million or even 1,000 million, and the income per person per year is only \$70. For India I have rounded off the population to 400 million and income per person to \$60. Now we can take India to be quite typical of the "have-nots," and its income is less than one-third or about one-fourth of that of Japan per person. As I have said, the figures are simplified, but they are sufficiently realistic to give us a broad view of the position of the level of living in the world.

I am speaking of the "have-not" half of the world, and more especially of the 1,000 million in Asia and Africa; and that is what I shall call "underdeveloped countries" in the present lecture. (My remarks may apply to a large extent to Latin America also. I made a very short visit to South America, but I do not know enough to speak with confidence.) I hope it is clear about whom I am speaking. Finally I have added, as a contrast, line nine, which shows the top 5 per cent of the population of the world living in the countries in North America, in New Zealand

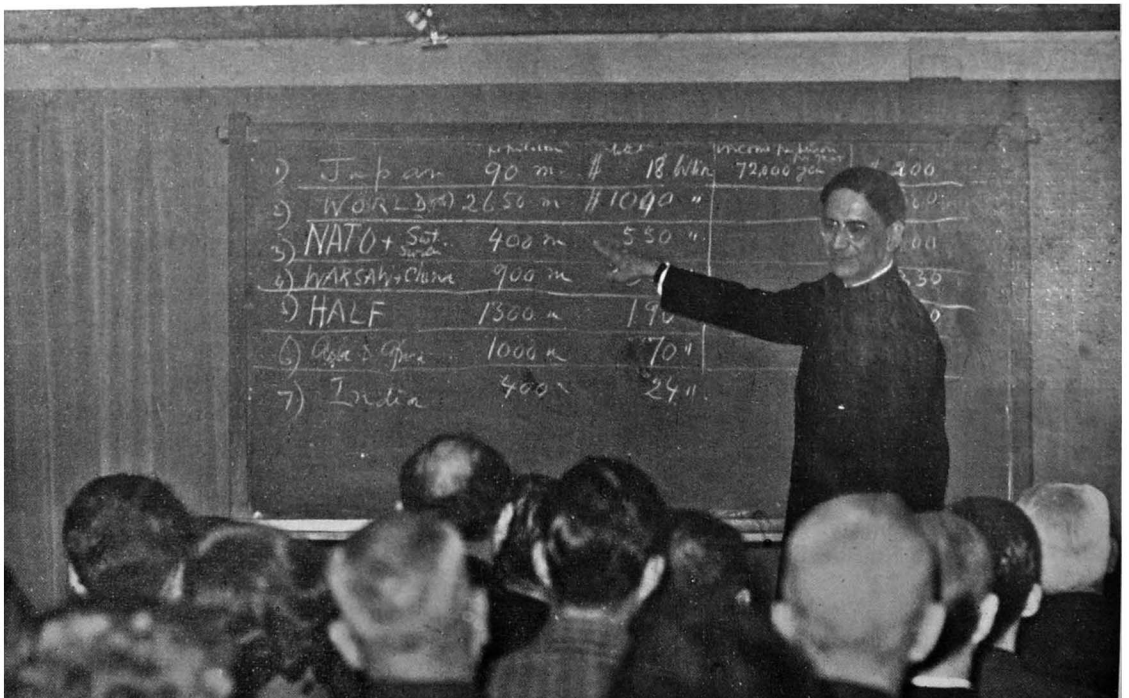
and Australia, and among the top of the NATO Powers. That will be about 135 million, who have 325 billion dollars or about \$2400 per person per year. Thus the top 5 per cent have one-third of the world's income, and on an average ten times more than that of Japan.

I have given you some figures from the point of view of national income just to give you a broad idea of the situation. Now for a few minutes I shall give you a little more description of India which can stand as a representative country of the underdeveloped group. If I describe the situation there, then with some adjustments this will be more or less typical of the other underdeveloped countries.

Now, what is an underdeveloped country? Obviously we have a low level of living. That we see here [pointing to lines seven and eight in the table]. Now a low level of living has also got to be pushed a little further back. This is quite an important point. In an underdeveloped country, disparities of wealth, income and power are far greater than in more developed countries. Therefore the underdeveloped countries not only have a very small slab of the world income but within the country, again, there are very great disparities. In India half of the population, that is, about 200 million, have to manage on less than

thirty-five yen per day—less than ten US cents a day, including the value of the food he grows, that is, not merely the cash, but the total expenditure per day. Only 1 per cent would have more than about ₹100 a day. It is only at the top, perhaps 1/40 per cent or 1/50 of one per cent of the people who are really well off.

Secondly, we have obviously a great deal of unemployment and under-employment. In India out of 400 million, roughly 160 million are in the working force, of whom less than one-tenth—13 or 14 million, have jobs in the sense of getting weekly or monthly wages; that is, people who are employed by government, municipalities and so on, or by modern organized industries and commercial houses. Ninety per cent work on their own account and can never be unemployed in the literal sense of the word. A weaving family may be starving, but according to the definition used in the statistics of the developed countries, he is never unemployed. Therefore, we have to consider how much work they are doing, or how much they are earning. In India we have perhaps 10 or 12 million persons who are unemployed in the sense of the advanced countries or severely underemployed; 20 million may be sitting idle for more than two-thirds of the time and 30 million for



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more than half of their working time; and 40 million or more (that is, something like the total labour force of Japan) may be idle one-third of the time.

The level of living is low simply because there is unemployment and not enough productive work. People cannot work because they have no tools. It is the shortage of means of production which is the basic cause. How can they have more work, how can they have a higher level of living? By having more goods, more food; and more food means more fertilizers, more irrigation; and more cloth, more housing, and so on. The production per head must increase and production per head can increase in a really radical way if we can use machinery, because production per head depends on how much machinery you are using; and how much machinery you are using depends on how much steel you are producing and whether you can manufacture machinery. Take the USA, with roughly \$1,800 or \$2,000 per year per person and compare this with \$60 per head in India; the American income is thirty times higher. Let us look to steel. The USA capacity is of the order of 120 million tons for 175 million people, that is two-thirds of a ton per person. In India until recently it was only one million tons for 380 or 400 million people. Now India can produce textiles and some other modern manufactures but mostly with the help of imported machinery from abroad, because not having steel, not having the heavy machine building industry, India cannot make machinery but must, of course, import. Now what is the value of machinery as such and of its component as steel? Usually the value of steel is not more than 10 per cent of the value of the machinery; so in importing machinery, 90 per cent of the value is being paid for labour done outside India. It is physically—by the way, I was teaching physics for thirty-three years—not possible to industrialize by importing machinery. This is not anything which depends on any economic theory; it is a physical fact coupled with arithmetic.

In India, we are the second biggest country in textiles. This is easy, we can import textile machinery and produce; and there is a large profit. But to repair or replace the machinery we have to import until we can make the machinery. And in India we have more iron ore of better quality than any other country, and more than the USA plus the USSR. The population of the USA is 175 million and the USSR is perhaps about 205 million which add up to 380 million. India has more population and enough iron ore but is manufacturing only about 1.2 million tons of steel which is a sign and measure of the lack

of development. Our natural resources are not being used while men are sitting idle. I hope this point is clear. The problem obviously is to industrialize quickly, which also means to be able to build machinery, to manufacture steel, and to make electrical equipment. I shall come back to this point.

Now the third sign of underdevelopment I have already mentioned. In pre-industrial conditions, land or other means of production are in the hands of a very few persons; therefore a small group has most of the wealth, income and power. As a matter of fact, broadly speaking, the more underdeveloped a country, the fewer are the very rich having all the power. As economic development of the modern type occurs, income necessarily becomes more equal, opportunities become more equal, and the base of decision-making becomes more widespread. This is broadly a sign of development.

Fourthly, is the problem of sufficiently rapid industrialization. Let us first dispose of one point. Through agriculture alone is it possible to have a high level of living? Much advice has been given to my country by expert economists that we ought to specialize and go on specializing in agriculture. I shall not discuss this in great detail, but remind you of one simple act which is usually called the triple-A, the Agricultural Adjustment Act of the USA, which provides heavy subsidies to agriculture. Without such heavy subsidies, the level of living in American agriculture would be intolerable. So agriculture, even in the USA, cannot do without very big subsidies or guarantee a decent living standard. I think I can skip the steps and say it is much more impossible to have a high level of living through agriculture alone in underdeveloped countries.

I said agriculture alone. Agriculture is, however, the basis of all industrialization in India—which is a different story. We must have food; we must have an agricultural surplus; and we must have raw materials. But by utilizing that food to feed men to make machines and to manufacture goods, we would be utilizing our own agricultural products for our own development, not sending them abroad. The other way is to export mineral resources, sending oil to be refined in some other countries or to be refined and then pumped off. This cannot lead to economic development. It is so simple. By simply exporting agricultural products and ores and minerals, no country can continue to raise its level of living for the country as a whole. A few small groups can become rich. This is the interesting point. If you have big landlords, they or some merchants can make a lot of money out of the exports or royalties on

minerals. A system in which there are large exports of the natural resources of a country (which means these are not being utilized to improve the level of living of the country itself) may mean quite a large amount of money in the hands of a very few.

These are the signs of underdevelopment. There is something else which I must now consider. Let us look to the industrialized countries, the NATO powers for example; 200 years ago, 150 years ago, the level of living in Japan, China, India, Persia and so on possibly was not lower than that in Europe. It is possible that the King or the Emperor in Peking or Delhi—I do not know enough about Japan, but possibly also Japan, had a much bigger and more important Court than the Court of St. James or even that of Paris. This is a fact of history. This was the pre-industrial era.

But the emergence of the West is also a fact of great significance to human history and the gift of modern science is the gift of the West to humanity, for which we are thankful and in which we also share. Through that gift of science, industry and technology, came the industrial revolution and in consequence indisputable and undisputed Western military superiority followed. This is the wider picture of the industrial revolution in the West. Then came the phase of importing raw materials, agricultural or mineral, and processing them; then the period of political occupation as in India and other countries in Asia, or of economic domination as in China; and then spheres of economic influence still more recently.

If we look back twenty years, the pattern is clear. There is the desire, naturally, to continue to have preferential access to raw materials, agricultural or mineral—fibers, rubber, tea, or oil. Naturally also, and it may be completely honest, there is Western economic theory to advise us that the best thing India can do is to develop her agriculture and export mineral resources. This has been quite a dominant phase of economic thinking which is easy to understand. Often all this is even passionately honest (but, in fact, is the result of rationalization of self-interest). The desire of the people in the underdeveloped countries to improve their level of living is, however, increasing with the spread of news of the modernization of the world. In this situation, preferential access to raw materials, agricultural or mineral, can be most easily arranged by unequal treaties made by a small group of people. If in a country there is just one person who decides and if he can be persuaded, a treaty can be signed. The very fact of underdevelopment makes it easy to perpetuate that fact.

I can now speak of international relations. Under-

development means a low level of living because of pre-industrial conditions in which the agricultural and the natural resources are not being used by the men sitting idle, but are being exported to be utilized elsewhere. It means high disparities of wealth, income and power. It also means (after the phase of political occupation is gone) unequal treaties which are extremely favourable to a few but would not promote industrialization.

I am sorry if I seem to be critical about certain international policies, but I have to speak as I see the facts. The net result has been, by and large, that the West has not shown any real concern for the industrialization of the underdeveloped countries. Industrialization would mean that resources would be more and more utilized within the country. It would mean diffusion of the decision-making process, and therefore greater difficulties in having preferential treaties. It would set up more competition in the purchase of raw materials. As a country becomes more and more developed, it has to be treated more and more as an equal. In Japan you are aware of that phase after your industrialization. Japan was the only nation in Asia which was treated on a more equal basis. Also, a highly developed country or industrialized country cannot be occupied indefinitely or cannot be dominated in economic matters indefinitely, because the decision-making, through the very process of development, has spread over the whole country.

Now let us look to the present day. In the United Nations—I was present at some of the meetings in 1946 and 1947—there was a great period of hope for economic aid for the underdeveloped countries. There were very high-sounding, well-meaning resolutions of the General Assembly. Committees were set up in 1950. In 1958 the Aid Programme of the United Nations and its specialized agencies, not merely the United Nations alone but including FAO (Food and Agriculture Organization), ILO (International Labour Organization), WHO (World Health Organization) and the others, the total budget for technical aid for 1958 is \$34 million. I am not joking.

The proposal for economic and technical aid started as multi-lateral aid through the United Nations. It was the Western powers who made it bilateral; and the volume of bi-lateral aid is 150 times more. Of this not more than 2 or 3 per cent—that is the estimate of a correspondent in the *New York Times*—has been for truly economic development. The West is spending something like \$4 billion or more per year. I am not including the Marshall Aid to Europe or aid to Japan. When aid

is given to an industrialized country, it can be extremely useful; but aid given to an underdeveloped country, mostly for military purposes, hampers industrialization. Such aid accentuates differences, and makes the rich richer, and the poor poorer in pre-industrial countries. So omitting the Marshall Aid, then, maybe four billion dollars (against thirty-four million through the United Nations) is the volume of Western aid, of which perhaps not 2 per cent or 3 per cent has been truly for economic purposes; and even then it has been usually to open ports and otherwise improve transport, which would of course facilitate the export of raw materials and minerals. These are hard facts. In 1952 India, not officially but informally, sounded the possibility of getting credit from a Western country to build a steel mill. That was refused. We were told we could purchase locomotives, steel, but not machinery to manufacture steel. I know this. The reasons are obvious. Economic theory supported it. Obviously those who are good in agriculture should go on doing that. Now this has been the situation during the last twenty years.

In the last two years the monopoly of the West has gone; a) in military matters, b) in scientific and technical knowledge; and c) in the ability to supply capital. Therefore during the last two years and, even more, during the last six months, we have entered an entirely new phase in international relations. Let us examine it. I travelled a good deal during the last fifteen months: in China in July 1957, scientific conferences a little later in Sweden, Moscow, Oxford and London—that was last year. This year again, two months in America, then giving lectures in the Netherlands, Brussels, London, Poland, and back in India in July. In September again to Europe for some international conferences in Brussels, London, then Austria for a conference of scientists, and again in Moscow for eight days, and now in Japan. So I get some vivid impressions which are based on what I hear or read or see but which are not, of course, just what people tell me. Up to now I have given what may be called documented facts; from now I have to be somewhat subjective. But it was a rather rare opportunity to have visited so many key-areas of the world during the last fifteen months; and I have some clear impressions.

I think that the USA is not worried about Russia coming and occupying America. I think the USSR is not worried about America coming and occupying Russia. Then where is the conflicting interest? I have stated that no highly developed country can be occupied indefinitely, because the pro-

duction process can be stopped. It would be economically suicidal to try to occupy a highly developed country indefinitely. It cannot be done. Therefore where is the area of conflicting interest? There are many areas of political rigidities confronting us today, but taking a long view I venture to suggest that it is the existence of the underdeveloped countries which is the basic cause of international tensions. This is why I ventured to select as the subject of the present talk "Problems of Economic Development in Relation to World Affairs." This part is not documented; but is inferential. I am stating that it is the continuing existence of the underdeveloped countries which is perhaps the most important basic factor in what is called East-West tension. I am speaking now as someone from the South—neither East nor West as they are called. From a neutral position I see conflicting areas of interest of two types. The Western powers are still desirous of continuing the pattern of preferential access to raw materials. There has been no clear sign of any serious desire to help in industrialization. I have given the relative figures of bi-lateral aid in the United Nations. I should also mention (this is documented) that SUNFED, Special United Nations Fund for Economic Development, was stillborn. The proposal was adopted with an overwhelming majority in the General Assembly, but was stillborn because of the opposition of the Western powers. This is documented. That is one clear type of interest—which we see, for example, in the Middle East.

As I see it, the interest of the "East" is of a somewhat different type. The East as it is called, the USSR and East Europe and China, are more fortunate than the NATO powers in having practically complete self-sufficiency in minerals and vast possibilities of agricultural production; therefore it is not direct access to raw materials which is the primary motive. But obviously, (again, these are all inferences from the South) the East is interested in bringing about a decrease of the influence of the Western powers in Asia or the influence of America in Europe. The Eastern Powers (the USSR, Poland, Czechoslovakia, etc., as well as China to a more limited extent at present) are seriously interested in helping in the industrialization of underdeveloped countries for two reasons which seem to be quite clear. Every new steel plant in an underdeveloped country would make it less dependent on the West; therefore industrialization would tend to make the underdeveloped countries more and more independent of the West, which would be to the interest of the East. Secondly, according to Marxist theory,

industrialization would set into motion progressive social forces. So for both these reasons, the USSR cannot only preach about industrialization but can practise helping in the process. The West can preach but cannot practise.

I am also convinced that even in 1952, the USSR was signalling to the West to reach some agreement on co-existence. It is worth giving that story. In 1952 in April, there was an International Economic Conference in Moscow. I went there as an observer. There were businessmen from many countries which in itself was rather interesting. I can tell you one amusing story. One of my Russian friends came to the Moscow Hotel one day and laughed and laughed. I said, "What's the matter?" He said, "I was coming in the streetcar and one student ran as if for his life and just succeeded in catching the car. He was asked, why all this hurry; and he said, 'I want to stand at the gate of the hotel to see some live capitalists'."

To come back to the Moscow Conference—there were delegations from my country, from Pakistan and so on. Before the Conference there were a number of preparatory committees. At that stage, three items were on the agenda; one was international trade, another was improvement of the social conditions of labour, and the third was industrialization of underdeveloped countries. I was particularly interested in the last item. But in Moscow I found international trade was the item on which there was the greatest emphasis and underdeveloped countries were in the background. There was clear evidence that in 1952 Russia had not adopted an active programme of economic aid to underdeveloped countries. In 1953 for the first time Russia gave one million dollars to the United Nations for economic aid. In 1953 it was not used, and in 1954 for the first time it started being used. I know this myself. Early in 1954 I suggested that we should try to get some equipment, an electronic computer from Russia, having failed to get that from the USA. Soviet aid thus started in 1954 and since then it has been rapidly stepped up as you are aware. The Aswan Dam is not being abandoned because neither capital nor technical knowledge are any longer a monopoly of the West. There is a State Department report on the economic competition of the USSR, published in May 1958. I was in New York at that time and I got a copy. So I am not saying anything which is not known. Soviet economic aid is being stepped up. Also we know, because we have Soviet long term loans in India, that the USSR, not being directly interested in military objectives but having indirect political aims, can give

aid without strings and is giving aid without strings.

This is what is happening today. Coming from the South, I see the very existence of underdeveloped countries as a basic factor in East-West tensions. It seems to me that a rapid transformation of the underdeveloped countries into modern, industrial economies would be perhaps the deepest, the most lasting and the most radical method for creating conditions for co-existence—that is of world stability and peace. This can come about either through competition, which would obviously have dangers (as in Iraq or Lebanon). We have entered a grave phase in international relations, if what I am suggesting has some basis in fact, in reality. The existence of the underdeveloped countries and the desire to have influence in the underdeveloped countries (of two different types) from the "East" and the "West"—if this is an important factor in East-West tension, then competitive economic aid can be extremely dangerous. Therefore safety lies for the whole world, and also for both East and West, in having East-West cooperation in transforming the underdeveloped countries as quickly as possible into industrialized economies. This is the sense in which I used the title of the talk today.

I should like to add one word without further going into it. I have given only the economic phase, but I should mention simply to make my statement a little more complete that competition over the conflicting spheres of interest in the underdeveloped countries may have very grave military consequences and may trigger off the third World War at any moment. Please do not think I am exaggerating; almost at any moment we may enter the gravest phase, which means there is not acute crisis today but a crisis can arise at almost any moment. This is why the problem of underdeveloped countries is so important to the whole world today.