

# India at Midpassage

by William Clark, K. B. Lall,  
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6S Overseas Development Institute



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# India at Midpassage

India is a test case. It is the biggest developing country after China; it contains more people than Africa and Latin America combined. Its development Plans are sophisticated and operational. It receives more aid from both East and West than any other country. If economic development cannot outstrip population growth in India, if the Indian Plans do not succeed, then the world campaign against hunger, disease and ignorance is more than half lost.

The Third Plan is halfway through; it looks as if it is failing to reach its targets. William Clark, Director of the Overseas Development Institute, recently visited India; his report suggests there is ground for cautious optimism – the last half of the Third Plan is likely to show greater progress and the Fourth Plan is being worked out with realism. He suggests that the West (and perhaps the East) needs to support the Fourth Plan as a whole instead of giving aid year by year.

Progress will be nullified, however, if population increases cannot be checked. The economic grounds for population control are outlined by Robert Neild; he argues that a policy for population control should be at the centre of thinking and work on development instead of on the periphery.

Even with an effective programme to control population, India will still have an acute employment problem. E. F. Schumacher argues that what is needed is an intermediate technology to devise low-cost industries suitable for rural areas.

Finally trade – without which India must always depend on aid to provide her foreign exchange. K. B. Lall looks at the possibilities of expanding Indian trade with Britain both in primary commodities and, more particularly, in manufactured goods.

A factual outline of the Third Plan is given in an Appendix. A second Appendix gives details of aid to India.

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# Foreword

Pandit Nehru, who launched his country into political independence, died when India was at midpassage to economic independence.

India today is at the half-way stage of the Third Five-Year Plan, itself the mid-point of a series of five Plans, at the end of which India expects to be independent of foreign aid.

The Overseas Development Institute has been studying various aspects of India's problems and our relation to them. This pamphlet includes three of the papers discussed at a series of meetings in the Institute together with a report by the Director on his visit to India in March 1964.





# 1 India at Midpassage

by William Clark

The Indian Third Five Year Plan (1961-66) got off to a very bad start. If it were to continue as it began the whole Indian strategy for economic growth and social change would collapse; with incalculable consequences for the world – both the rich and the poor nations.

Indians today are very aware of this crucial situation, and their national capacity for criticism is turned in on themselves, rather than, as so often in the recent past, outwards on to the nations where they look for assistance. In my fairly extensive tour of India I rarely heard the blame for failure laid principally on the insufficiency of Aid, nearly always it was on the inadequacy of India's own performance or on the cruelty of Fate.

Fate has not been kind to India in the first half of the Third Plan period (this Plan began on 1 April, 1961). The sharp defeat inflicted in the North by the Chinese in December 1962 was a bitter wound to India's pride, and a fatal blow to the policy of non-alignment. Pakistan's flaunting of her new friendship with China, combined with a renewed diplomatic offensive over Kashmir, has revived all the Indian hostility to her neighbour and humiliatingly reminded her that the world does not generally take India's side in this dispute. Perhaps even worse the dispute has revived communal feeling, and communal killing, within India and so threatened the basis of the secular state. On top of all this Mr Nehru's illness and death have removed the firm hand and the main galvanic face of the country at a time when it is most needed.

Finally the monsoon has turned traitor, and the 80% of Indian farming that is dependent on natural supplies of water has been denied its full due. As a result agriculture has stagnated during the first two years of the Third Plan and dragged the whole rate of national expansion down with it. In the years 1961-63 the Indian economy expanded at exactly the same rate as the Indian population. The battle against poverty was drawn – which means lost.

## The Measure of Failure

To some small extent the failure to meet targets can be attributed to setting unrealistic targets – there is always political pressure on the Planning Commission's simon-pure economists to set the sights a little higher than is possible. To some larger extent it can be blamed on the Chinese attack and the consequent diversion of resources and effort to defence (the defence budget rose by a third). But excuses aside, the bleak fact remains that **national income** which was planned to rise by 5% p.a. rose by only 2.5% p.a.; **agricultural** output planned to rise by about 4% p.a. was stagnant; **fertiliser** output was only about 50% of what was planned; **industrial** output, planned to rise by 11% in each year, rose by 6.5% in the first and 8% in the second.

The result has been a rise in prices, about 7% in the general price index over  $2\frac{1}{2}$  years, and much more in the prices of food grains. At the same time little, if any, of this higher price has flowed back to the farmer; it is soaked up by the vast sponge of Indian middlemen. The prices of manufactured goods have also risen, largely because so many of them are 'import substitutes' made in new factories which cannot be utilised to capacity because of the continuing shortage of foreign exchange to buy some necessary raw material.

Consumer goods are consequently in short supply, and local private enterprise which expects to be the main supplier of such goods is irritated by Government interference and what appears to them to be a mass of bureaucratic controls (though they appear to Government to be necessary instruments to restrict the expenditure of foreign exchange, or to ensure the wise investment of a proportion of profits).

## The Measure of Success

The sense of frustration, stagnation and humiliation hangs very heavy over India today. We must face, as they are now facing, the possibility that the whole elaborate strategy for development may fail. But as an outsider, who has visited India at fairly regular three-yearly intervals since the First Plan was launched in 1950, I found it impossible to overlook the signs that the tide of progress is slowly creeping in. It is often hard to put these observations into statistical terms, but they are none the less real.

India is in the bicycle age, as we are in the automobile age, and the increase in the number of bicycles is very noticeable, not only in the towns but in the villages. Most models, including the rickshaw-tricycle which is the taxi of most towns, are now wholly manufactured in India. This and better roads have begun

to break down the isolation of the village and let in a breath of the twentieth century, which floods in also through the radio (transistors must have doubled the number of village sets which continue to work after being dropped or knocked over). Again I noticed a closer approach to punctuality – which results from the quite wide dissemination of watches.

Over much of the country malaria has been eradicated, and famine, which still strikes, is no longer the killer it was – thanks very largely to American supplies under PL480 (though a drive through Rajasthan, where the roads were clogged with whole villages of people, their pathetic possessions bundled on to the backs of their donkeys, is a reminder that famine can still make refugees as effectively as that other apocalyptic horseman – war.)

Solid statistics can reinforce subjective impressions of progress in the longer term planning period. National Income in the first decade (the '50s) rose from £745m to £1,100m; *per capita* income, however, rose by only 16%. Investment rose from 5% to 11%, and industrial production was doubled, while students of engineering quadrupled from 10,000 to 40,000. Even agricultural production, the Cinderella of progress, expanded in the decade by 40%. But the remorseless advance of population continued too, and India added 75m to its population in the '50s, an increase of 21%. While India has been running very fast she has not quite been standing still.

## The Industrial Base

One very considerable difficulty in persuading the Indian peasant, or the Western sceptic, of the reality of India's economic progress is that, by intention, the national effort has been largely concentrated on building 'the industrial base'. Gigantic hydro-electric and irrigation schemes (like the Bhakra dam); enormous steel works (like Durgapur) have gobbled up the public investment funds and produced very little tangible for the villager to enjoy. There is in India a lot of open and strong criticism of the 'giganticism' of the Planners. Yet the reasoned replies of the Planning Commission need to be considered.

They argue that if India is to raise standards of living appreciably, some labour must be taken off the land (to relieve pressure) and must be put to far more productive work through industrialisation. Secondly, if India is to industrialise it has the choice, they argue, of continuously buying the means of production overseas, with a permanent strain on the balance of payments, or of building basic industries (steel, machine tools, etc.) which will enable her, after a relatively short but severe

balance of payments crisis, to build her own consumer and export industries. Today India is in midpassage; since the mid-'fifties she has been very dependent on external aid to buy the tools of production – but she plans by the mid-'seventies to be independent of aid, and to rely on trade for her foreign exchange needs.

The extreme shortage of foreign exchange today tends to conceal the extent to which this long term plan is working out successfully. For India is producing a very wide variety of manufactured goods, both as import substitutes (bicycles, pharmaceuticals, etc.) and for export (electric fans, shoes, etc.). How far India can become a great trading nation is not entirely under her own control. Already her exports of textiles are severely limited by quota or tariff in Western markets, but great hopes are pinned on the series of trade negotiations at Geneva. If India were to find her goods excluded by the developed countries both from their own markets and from overseas markets which they control, the consequent political disillusionment and disenchantment with those who helped her to develop would be very severe.

But to a large extent India's ability to trade abroad will depend (and indeed does already) on her ability to be competitive, in quality and price. At present the prospect is not encouraging; prices are high and quality is not, but India is still in the very early stages of industrialisation and better management, more skilled craftsmanship, are to be expected in the future. There are plenty of signs that India can produce first-class goods at sharp prices. The one really gloomy feature of the outlook is the growing realisation that India's enormous potential labour force is not an asset in terms of economic competition. This is not just a matter of there being 'no such thing as cheap labour' – because lack of skill and productivity outweighs low wages; it is the more serious fact, which is only slowly becoming apparent to the world, that in the age of automation no labour is cheap or efficient. In world terms, manpower is obsolescent. And there is an awful lot of manpower in Asia.

## **The Next Two Years**

Half-way through the Third Plan, then, the outlook is not altogether black – there are signs that the third year's out-turn will be far better than the first two. But if morale is to be sustained and progress maintained it is essential that in the next two years (April 1964 to April 1966) India should make great steps forward particularly in three fields:

**Agriculture**, where stagnation must be replaced by sustained growth if any progress in denting poverty is to be made at all.

**Industrial efficiency**, perhaps by consolidating the existing gains and ensuring that there is full utilisation of capacity. Also, this capacity needs to be channelled rather more towards the agricultural sphere.

**Population control**, which must begin to be effective if all the increases in India's production of goods are not to be swallowed up by her production of babies.

## The Next Two Plans

There is a general acceptance, at all levels including the highest, of this thesis that the next two years are crucial, not so much in economic theory as in political practice. At the same time, however, the Fourth Plan (1966-71) is taking shape, and in the Perspective Planning Department, Pitamber Pant and his colleagues are already living in the 1970s. It may be thought that the figures and plans now being discussed are again gigantic and overly ambitious – the difficulty with India is that even the most modest ambition of the ordinary citizen becomes gigantic when multiplied by his 450,000,000. But in fact the ambition is modest enough; it is to ensure an acceptable minimum standard of living so that every Indian should be able to consume (not earn) at the rate of about £20 a year (the current British rate is £350 p.a.). At present the lowest three-tenths of the people consume at the rate of less than £15 p.a. individually, and even the top tenth (really Top People) average only about £60 p.a. The implications of raising the level of that lowest three-tenths to £20 p.a. in a decade are, in essence, the basis of economic policy of India until the mid-'70s.

## The End of Aid

In all this future planning it is assumed that India must soon become self-sufficient in foreign exchange. The present assumptions are that in 1965 foreign aid will still provide 16% of India's foreign exchange needs, but by 1970 it will be down to 5% and by 1975 to nil – India will stand on her own feet providing her own foreign exchange by her own export trade. Finance for the needed investment will be provided partly by the increased yield from taxation as incomes rise, partly by a much greater contribution in savings (i.e. profits) from the Public Corporations (now producing only 4% on its capital, this sector is expected to provide 10%), and by an increase in the amount the private

sector re-invests (there is an undoubted resentment in Government of the fact that at present two-thirds of private sector profits are distributed as dividends).

## **Agriculture**

Nothing is more striking than the extent to which it is accepted now by virtually all the planners and the Congress Party that raising agricultural productivity is the immediate most pressing task before India. If India fails, as Soviet Russia failed, to make a great break-through on the farmer's front, it will at least no longer be possible to claim, as it has been in the past, that agriculture has simply been neglected and overlooked.

Already plans are being implemented for giving far more resources to the agricultural sector; if they want concrete they can get it, if they want pumps they will be supplied – in fact the long-gestated industrial base is now expected to pay off in goods for the agricultural world, mostly capital goods for irrigation, but partly also consumer goods. The aim is above all to make the four-fifths of Indian farmland that is at present dependent on the monsoon for its water supplies, more capable of supplying itself with water either by drawing on subsurface supplies or by better methods of conservation and irrigation. There seems no other way of avoiding the periodic setbacks of the bad harvest.

At the same time there are (not for the first time) grand plans for the extension of more scientific and modern agricultural methods, and for 'land reform' in the sense of consolidation of holdings, with a relatively low maximum holding. Anyone travelling in country areas will be struck by the present high level of agricultural expertise in the Government experimental farms, but by the relatively weak link between these and the ordinary farmer. Land reform also seems not yet to have succeeded – particularly in two ways; first, a very large number of tiny holdings remain subdividing from generation to generation; second, the low ceiling tends to make farming a way of life in which an adequate return or a good education cannot be obtained, so that the brain drain from the land continues unabated.

Nonetheless, I think the political pressure for more successful farming will be so great that successful methods will be followed up, and failures will be eliminated. The question really is how to ensure sufficient experimentation and wise enough judgement of results; finally, above all, to find successful methods of transferring new ideas into common practice by independent farmers.



## Population Control

It is generally agreed that to achieve success in the agricultural field it will be necessary to reduce the number of people on the land – an incredibly difficult task with population rising at its present rate (2.5% p.a.), with about 85% of the Indian population on the land, and with industry tending all the time towards capital-intensive rather than labour-using devices. This only underlines the now generally accepted vital necessity of reducing population growth. The plan is to halve the birth rate in 15 years so as to stabilise the population in the late '70s at between 750–800m. There is no special gimmick by which it is hoped to achieve this vast task, only a determined application of known methods of control, and a nation-wide drive to make family limitation popular.

I noticed that for the first time in my experience there did seem a general acceptance of the urgency of this matter. The subject is discussed with remarkable freedom, and one learnt not to be surprised at stately dowagers suddenly producing strange devices from the depths of their saris and asking whether one has heard of this method which is so suitable to the village? I do not believe there is much more than inertia opposing birth control in India, so that a real drive by Government could achieve results; so far there has been no such drive, and I would suggest that family planning be taken out of the Ministry of Health and made a separate agency with a powerful Director. There are few more important tasks before the leadership of India.

Yet even if everything goes according to plan, if population does stabilise at 800m; if only 60% of that is on the land; if industry does take up the slack by 1980, one is still faced with nearly 500m people living on the land, fully employed for only the short cultivation season, otherwise working only fitfully on soil conservation and irrigation projects that could be more economically done by machines. As a result the share of the national income they earn will be far lower than that of the industrial workers. At the same time one sees the danger of more than 250m workers and their families crowded into awful black holes, such as Calcutta is today, sacrificing dignity, leisure and health to earn the higher wages.

It does seem necessary for the Indian planners to retain a strong sense of social purpose and not to be led solely by the economic motive of producing more wealth to combat poverty (a necessary but not quite sufficient cause). In particular, I believe, it will be necessary for them to subsidise farming somewhat (not an unfamiliar habit even in developed countries) so

that the villages receive rather more than by strict calculation they can earn. It will be necessary also to give industrial workers somewhat better amenities and welfare than straight economic reckoning (or trade union bargaining) would ensure. The housing which I saw at Durgapur steel works was a welcome sign that this was appreciated, and the plans for *small* industrial centres – made possible by electric power – are another indication that priority is being given for social amenities. This ‘welfare’ may cost India money, it may slow its independence of external assistance, but it is the price that must be paid for ‘a revolution by consent’. It seems to me a price that we on our side should not be anxious to haggle over.

## Conclusions and Suggestions

It demands a good deal of boldness, not to say impudence, to offer suggestions about how to improve India’s economic planning. It is of course possible to hold a doctrinaire objection to planning as such, or to Socialist planning (which means little more than rather egalitarian planning). But even this is an argument that goes on inside India and the Government has exerted its sovereign and democratic right of making up its mind and carrying the people with it. Most of the possible alternatives in most situations have found advocates within the Planning Commission, have been argued out and decisions arrived at on the basis of rational conviction. The plans may fail, but the immensity of the task is so overwhelming that any plan (or non-plan) might fail.

To begin, with due protestations of humility, with some suggestions for the Government of India. The Plan is undersold; I cannot tell whether the peasants have any views about it, but too often I found that Members of State Legislature Assemblies and even State Ministers were very vague about its implications, and consequently failed to support it when there seemed any conflict with local interests. Just as important, the Plan and India’s economic progress (which is real) are insufficiently explained overseas in those countries involved in aid to India. It is important that information about the economic situation should be separated off from the usual political-diplomatic pressures. Relations with India’s development plans are on a different time scale and of a different order from relations over Kashmir or Southern Rhodesia.

In agriculture one crucial need is to check the brain drain from the land. It seems unwise therefore to set the limit on holdings so low that farming cannot offer a reasonable income



viewed as a return on, say, a university education. Attempts should be made also to get some of the managers, teachers, etc., who work in small towns, to devote some of their brains to farming as a part-time profession.

It may well be necessary in some way to subsidise farming (see above); certainly it is necessary to make life on the land and in the village reasonably attractive. At present the whole price policy on food and cloth is consumer orientated; it needs to be more producer orientated. This would not necessarily mean higher prices to the consumer if some of the middlemen could be cut out. If the farmer is to be encouraged to work more effectively and earn more money he must be offered incentives in the way of consumer goods. With the coming of electric power to the villages this is made more feasible. The Small Industries programme should concentrate on goods for this market; but all the lessons of the past underline that the production and marketing of consumer goods is something which private enterprise does far better than state enterprise.

The general task of raising the status and the bargaining power of the farmer can be greatly helped by the Co-operatives. 'Co-operative' is a magic, almost sacred, word in India, but (perhaps as a result), it is not used to the full. The emphasis is very greatly on Credit Co-operatives; Supply (Consumer) and Marketing Co-operatives are far less developed. I believe that this is a point at which Britain might give some technical assistance from our long and wide experience of Co-operatives; I also believe developments in this sphere are the key to many of India's peasant problems.

The immense difficulty of passing on new agricultural techniques to the mass of the peasantry is, I think, sometimes underestimated by the central planners. The advanced work carried out on the Government farms is immensely impressive, but the dead weight of inertia stops the spread of their new methods. Concentration should now be far more on how to get ideas accepted than on finding new ideas. Here again I believe there might be some external assistance. India has thousands of dedicated Agricultural Extension workers, but a small team of *outsiders* with knowledge of all the modern means of communication and education might stimulate some new thinking on this vital subject. There are also possibilities with broadcasting; the BBC believes that their serial the 'Archers' has considerable impact on farming methods in Britain; as India is entering the sound-radio age, could something similar be done?

## What Can We Do?

There remains the question of what the developed countries can do from outside India to help in her development. I do not intend here to argue the case for aid\* but only suggest ways in which our co-operation in Indian development can be made more effective.

First of all nothing can be more useful than continued private investment in India. The reservations about private business which used to be prevalent in Indian Government circles have been largely overcome, particularly about British business. The last (1964) budget was designed to encourage foreign investment in India. Any firm which invests today, however, must accept that, in a period of austerity, very large profits will be frowned on; but investment now for the long term is a pretty sure bet. Indian industrial activity is steadily expanding and if the Plans work out, the subcontinent will be one of the largest mass markets in the world. A really well publicised drive to get new British investment in India would be a valuable political gesture, which could bring considerable economic benefit to both countries.

But for the next decade the crucial contribution will be from Governments, and we (the Aid India Consortium†) need to look carefully at our present policies to see whether they are likely to achieve their objective – which, presumably, is to make a dent in Indian poverty by an economic growth rate that noticeably outpaces the population growth rate. Aid which fails to do this, however generous, is wasted.

Is the amount of external assistance sufficient to achieve results? It has been running at, roughly, £360m a year, which is a very large sum. But to some extent the figure suffers from the usual Indian 'giganticism' because of the vastness of her problems and population. The sum seems more modest when expressed as about 14/- of aid for each Indian.

In any case no visitor to India can fail to realise that in one sense the amount of foreign exchange at India's disposal is far too small. Every international transaction with India is harassed by this ever-present shortage of foreign exchange – factories run at half blast because some raw material cannot be obtained; half the lifts in the best hotel are out of order because the replacements would cost foreign exchange; tourists are lured to scenic India but cannot buy colour film because it costs foreign exchange to import. In spite of the so-called 'Kipping

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\*That has been done in another ODI publication, *Why Help India?* by Maurice Zinkin and Barbara Ward, Pergamon Press, 3/6.

†USA, Britain, Canada, Japan, West Germany, France, Italy, Netherlands, Belgium, Austria, World Bank and IDA.

Aid' for repairs and replacements, Indian productivity is constantly hampered by shortage of foreign exchange.

It would be unrealistic, however, to imagine that there will be any ease in getting more external assistance for India. All the indications are that there will be some tapering off. First of all, therefore, we must see whether what aid there is, is given or lent in the most effective way. Is it sense, for instance, that for every five dollars India is receiving in aid today she is paying out about three in interest and principal repayments on earlier loans? Certainly the terms of aid today are much more realistic, with low rates of interest and a period of grace before any repayment begins; but the earlier loans were quite strict, and India is determined to honour her obligations. We need to ask ourselves whether it is really in our interests to demand repayment before India has got over the hump of development. If it is, are we prepared to be paid in Indian goods; or have we learnt nothing from Messrs. Smoot and Hawley? A moratorium on Indian debt repayments (perhaps pioneered by the World Bank) until a certain phase of development is reached (perhaps modelled on the waiver clause in the American loan to Britain of 1946) could revolutionise the Indian economic scene. Would it really hurt any of her creditors in the West?

The current sums of aid could also be made far more effective if they were (a) promised for a longer period than one year (b), were untied from projects to which they are usually attached (Britain is less guilty than most on this). Nothing is more striking than the extent to which, today, Indian planning on a five and fifteen year basis is hamstrung by the fact that external assistance is arranged from year to year and is usually available only on a piecemeal basis as projects are started.

Yet this system only reflects the basic approach of the donors to India's problems. It will not be righted except by a quite revolutionary change in our attitude towards India's struggle for development. What is needed is that the Consortium should accept responsibility for playing a definite part in the planned attack on poverty, or in the plan for economic growth. Just as the American Congress by the Vandenberg Resolution accepted responsibility for seeing the whole Marshall Plan through at a time when it was expected to cost \$25,000m, so we should get into a position where we could accept the Fourth Plan, as a joint project with our agreement in principle to underwrite the necessary foreign exchange requirements for the full period of the Plan.

How could this be done? It is of course primarily a political

rather than an economic problem. I suggest that the Aid India Consortium appoint half a dozen representative delegates to go to India during the finalisation of the Fourth Plan. They should argue and negotiate with the Indian planners until there is a fair measurer of agreement that this is the minimum necessary to achieve any real progress in economic growth. This approved plan should then be formally accepted with all its consequences – in aid, trade and debt settlement – by the Consortium. There would remain the difficult task of ‘selling’ this plan and its expenditure to the electorates whose representatives would vote the money, but this should not be impossible if the Consortium’s delegates and some of the Indian experts were to spend some time in a special effort of public education.

There is a further point. Russia is a major source of aid to India, but not a member of the Consortium. Should she be included in this joint venture? The answer will very largely depend on her attitude towards the development of India; if Cold War motives predominate then co-operation would be very difficult. But if, as has appeared sometimes recently, Russia recognised that she had an interest in helping forward India on India’s own terms, then this might prove one of those points of common interest between East and West which should be exploited to the full.

To conclude: the success or failure of India’s planned effort to dent their poverty hangs in the balance. The outcome rests in Indian hands, but the key factor of external assistance can be applied effectively or ineffectively. At present there is a great danger that just too little will be given just too ineffectively, and all could thus be wasted. Aid will only be applied with full effect if the donors accept, in principle, the aims and methods of the Indian Plan and judge the amount that is to be made available in terms of what is needed to achieve its objectives. India is the test case of whether the rich countries can effectively help the poor countries.

# 2 Population Policy

by Robert Neild

The object of this piece is to examine population policy in the context of long-term economic planning in India.

## The Problem

A considerable volume of work has been done on the economic aspects of India's population problem, including notably the study by Coale and Hoover.\* It is, however, worth recapitulating the main features of the problem.

India's population, like that of many other countries, is 'exploding' because mortality is falling whilst there has been no check to fertility. The reasons for the decline in mortality appear to be the elimination of famines, a slight improvement in nutrition, the check to malaria and epidemic diseases, the advent of new drugs and the introduction of improved sanitation and water supplies. The relative importance of the different factors does not seem to have been precisely assessed.

The effect of the decline in mortality has been dramatic. Whilst fertility is estimated to have remained about constant, the rate of increase in population is estimated to have changed as follows:

**Table 1 Increase in Population**

			<i>Absolute millions</i>	<i>Per cent</i>	<i>Annual Growth Rate Compound</i>
1891-1921 ...	...	...	12	5.2	0.16
1921-1951 ...	...	...	109	43.9	1.2
1951-1961 ...	...	...	81	22.7	2.1

Projections of population for the future, like all projections, are highly uncertain. However much they are dressed up in statistical clothing, guesses about (a) the future development and effect of nutritional standards and of medical and sanitation services (which determine mortality) and (b) individual behaviour and attitudes to reproduction and the effect of family planning policies thereon remain guesses. In practice, people making population projections, or other projections, tend inevitably to extrapolate recent trends into the future. Moreover, once a projection passes into circulation, it often comes to be accepted with more

\*A. J. Coale and E. M. Hoover, *Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospects*. Princeton University Press, 1958.

credence than it deserves. This can be seen in the history of past projections in India and other countries; a single projection often remains in circulation for a long period before it is confirmed or contradicted by events and a new one, incorporating the more recent experience, takes its place. It is therefore wise to be cautious when using projections.

The prospect for India is that mortality rates, which are still very high, will continue to decline, as development and health programmes continue to take effect. Fertility is expected to continue at the present high rate for some time, and the key question is whether, or when, it can be expected to decline. The theory, derived from European and other countries, that fertility will decline spontaneously as incomes rise, is of doubtful relevance for India in the next decades. In some countries, fertility has begun to decline while income per head was as low as it is in India, but in many countries it has not done so. Urbanisation may have some effect, regardless of income; but that could not be a very big effect in India because the rural population will remain a very large part of the total for a long time. Moreover improvements in health and living standards from very low levels may tend to raise fertility. Hence the hope of a decline in fertility must perforce rest mainly on the view that conscious policies to limit the birth rate will show some result.

The official population projection, given in the Third Plan (Appendix C) is based on the assumption that fertility will remain constant up to 1971 and that it will then decline by 10% in the next five years. Thus credit appears to have been taken for the effect of population policy from 1971 onwards. Mortality is expected to decline over the whole period up to 1976, at which date the expectation of life at birth is expected to reach 54 for women and 55½ for men.\* The resulting figures for the total population are shown below, together with earlier projections for the same period.

**Table 2 Population Projection for 1976**

		<i>Second Five- Year Plan</i>	<i>1959 CSO</i>	<i>1961 Third Plan Study Group</i>
1961 ... ..	...	408	431	438
(millions)				
1976 ... ..	...	499	578	625
(millions)				
Increase ... ..	...	91	147	187
(millions)				
Rate of Growth ... ..	...	1.3	2.0	2.4
Compound (%)				

(Source: Third Five-Year Plan, p. 750)

\*For comparison, the expectation of life at birth in the USA in 1958 was 66 for males and 73 for females; in Britain in 1959 it was 68 for males and 74 for females.



The figures show a truly dramatic explosion. There seems little reason to doubt that something of the kind will occur unless fertility is checked. We shall therefore take these figures as a working basis. The key variable is family planning in the broadest sense, including changes in attitudes as well as the provision of birth control facilities. As noted below, there seems little likelihood of action running ahead of plans.

The rate of increase in population is important to long-term planning from the point of view of employment as well as consumption per head. Employment for everyone is an objective in its own right, since it helps to ensure a more equal distribution of income, quite apart from raising income. From the details of the population, given in the Third Plan, it is possible to calculate the increase in population of working age (15-64) both for the period 1961 to 1976 and for the following 15 years, 1976 to 1991. Estimated numbers in 1961 and 1976 are given by 5 yearly age brackets. The 1976 figure is therefore available directly and the 1991 figure can be obtained by promoting the population in each age group through three brackets, applying the mortality rate appropriate to each bracket. No new assumption about fertility is needed: the labour force of 1991 will have been born by 1976. For mortality, we have taken the average rates for each five-year age bracket for the period 1971-1976 from the Third Plan projection. These rates, which could readily be derived from the Third Plan figures, are on the high side in relation to that projection.\* Moreover we have made no allowance for any further decline in mortality beyond 1976.

The resulting figures, given in Table 3 show a rise in the population of working age of about 100m in the 15 years up to 1976 and about 150m in the 15 years up to 1976, and about 150m in the next 15 years.

**Table 3 The Population of Working Age (15 to 64)**  
(Figures in millions)

			Number			Increase	
			1961	1976	1991	1961 to 1976	1976 to 1991
Male	...	...	129	177	254	48	77
Female	...	...	119	173	243	54	70
Total	...	...	248	350	497	102	147

How many of the 15-64-year-olds will participate in the labour force has been estimated up to 1976 in the Perspective Planning Division's *Perspective of Development: 1971-6*. It was estimated that

\*In the Third Plan project it was assumed that mortality would decline steadily over the period, but we have used the average for the last five years, not the implied mortality rate for the last year, which would have been slightly lower.

between 1957/8 and 1975/6 the labour force would rise by 76m. At a constant rate of growth, that means a rise of about 66m between 1961 and 1976. If participation rates remained constant, the increase from 1976 to 1991 would be 96m. An alternative rule of thumb, given by Coale and Hoover, would yield slightly higher figures, 71m and 99m for the two periods.\* The main uncertainties are two. First, female participation, which is now lower in towns than in the country in India and so leads to a slight decline in participation as the urban proportion of the population rises. Female participation in towns seems likely to increase some day as a result of the easing of economic and social inhibitions to female employment and, once the birth rate declines, as a result of the diminution of family responsibilities. These factors might have some force in the period 1976-91. Second, there is the increase in numbers in educational establishments. We shall assume that on balance participation will decline slightly; in round figures we shall put the increase in the labour force at 70m from 1961 to 1976 and at 85m from 1976 to 1991.

These figures are pretty uncertain. They imply a low rate of female participation compared with many other countries, notably the socialist countries which have mobilised their female population very fully. Even so, the employment problem is staggering. The present total labour force of Britain is just over 33m; that of the United States is about 70m. In the next fifteen years and again in the following fifteen years, India needs to absorb an increase in the labour force about equal to the present total labour force of the United States or three times as great as the present labour force of Britain.

The difficulty – or indeed the impossibility of the task – can be seen from the Perspective Outline for 1975/6. There it is estimated that if the rate of growth of national income over the 15 years 1960/1 to 1975/6 was raised to 7% – and we know that this rate is still far from being achieved – employment in manufacturing (including small enterprises) and mining would rise by only 7m compared with 1957/8. Agriculture, construction and services taken together, do not need more labour, but perforce the remainder of the increase in the labour force – 63m – must be expected to attach itself to these sectors. There is therefore likely to be a big increase in the problem of under-employment. If the same rate of growth of employment in manufacturing and mining (6% compound) continued, the extra employment in the

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\*They say that usually 58 per cent of the population is of working age and 40 per cent is in the labour force. Hence the participation rate for those of working age is 0.69. See Coale and Hoover, *op. cit.*, page XV-1.



sector for the period 1976-91 would be 16.5m. There would be almost another 70m workers to be absorbed elsewhere.

## The Approach

What to do in the face of a population increase of this kind is ultimately a moral question. The traditional economic literature on optimum population does not tell one very much: it tells one to choose between maximum numbers, regardless of their welfare, or maximum welfare. Under the latter heading it offers two main criteria; maximum consumption per head or maximum total welfare.

In India most people, including the Government, have accepted that the limitation of the population is desirable: Congress endorsed the need for family planning as far back as 1935, and it has been written into the Five-Year Plans and other Government statements. The direction of policy has thus been decided. The problem is that the implementation of this policy, as indicated, for example, by the expenditure figures, is moving slowly. The effort and outlay accorded to population policy seems to be far too small.

In order to see what outlay might be justified it is simplest to take maximum consumption per head as the objective rather than maximum total welfare. It is simpler to measure;\* and where, as in India, one is far from either ideal, it matters little which of the two is used.

It can be said that in order to maximise consumption per head, a birth should be prevented if the discounted value of a child's expected consumption exceeds the discounted value of its expected contribution to output over its expected life.† This approach, however, is not very easy to use, since we have little idea what the consumption or the product of a marginal person will be for different levels of population over a whole future life.

Immediately it will tell us that an extra life is undesirable: since a child starts consuming before it produces it will yield negative values until the expected product is high. At some point short of zero births the equilibrium point should be reached. But we cannot accurately calculate that point.

It is more useful to link our calculations to existing long-run

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\*If one took maximum welfare, one would have to take account of the diminishing utility of income and allow for the value of the life foregone, neither of which can be measured.

†This approach is used by Professor Enke in arguing for a system of bribes to induce parents to limit their families. See, for example, Professor S. Enke 'The Gains to India from Population Control: Some Money Measures and Incentive Schemes', *Review of Economic Statistics*, XLII, May 1960, pp. 175-181.

plans, so that we can fit them into a ready-made statistical framework.

We can start from the following straightforward proposition:

1 The object of economic development is to raise living standards, i.e. consumption per head. In doing so, it is irrational to concentrate exclusively on measures to raise consumption and to ignore measures to check population: in order to raise  $\frac{c}{p}$ , the denominator as well as the numerator should be attacked.

2 It is politically realistic to assume that there is not much scope for raising the living standards of the poor through the redistribution of income, and, secondly that there is at any time a political limit to the funds available for investment and for current social expenditure, set by willingness to save and to be taxed. In any period, there is thus a limit to redistribution, and associated with it, there is a 'development fund' which can be allotted either to investment or to population control (and other types of social expenditure). The problem is to choose the best allocation.

3 Any population policy we can devise is unlikely to do more than moderate the growth in the population over the next ten or twenty years. We shall assume that this is a politically acceptable objective – provided the means employed are acceptable. This means that we aim at maximising consumption per head, knowing that we shall not be able to go to the possibly excessive limits which that criterion might indicate. If some day the point is reached where restraint is felt to have gone far enough the criterion can be modified. But that day is a long way off.

The Perspective Planning Division's outline for 1975/76 puts forward the aim of raising everyone to a minimum income of 30/- per head per month by 1975/76 and calculates what investment and other actions would be required to achieve this aim. The implicit net capital: output ratio is about  $2\frac{1}{2}$ . Hence it appears that to provide the minimum income of £18 a year for one person requires that investment of £45 (all at 1960/61 prices). On the basis of these estimates, it appears that if a life can be prevented for anything less than £45, it is better to allocate funds to population policy than to investment. The desired living standard will be reached more quickly.

This rough calculation requires some qualification and refinement:

1 In using discreet periods, it is necessary to ensure that the population at the end of the period is not of such a size or age composition that it is incapable of producing the desired population for subsequent periods. As is the case with fixed investment,

one must watch the stock at the end of the period. But we can safely assume that within the foreseeable future there will be no problem on this account.

2 The cost of providing an extra person with social services is not fully reflected in the calculation. In the first place, we ignore the current cost (as distinct from the capital cost) of providing him with education and other services. (This is excluded from the 30/- a month, which covers personal consumption only.) The family of the marginal child is unlikely to pay as much as it draws in benefits. This also goes for the child itself when it grows up. Secondly, the capital outlay that would have been necessary to provide that extra person with a combination of social capital and productive capital can now go largely or wholly to providing the remaining smaller population with more productive capital: one of the burdens of a rising population is that you have to devote a large proportion of your investment funds to social capital. With a slower growth of population you can devote more to 'productive' investment.

3 If the population is smaller and income per head is higher, private saving may be higher (i.e. our investment fund may be larger); and productivity may be higher in so far as it responds to improved standards of nutrition and health.

4 Our extra citizen would probably more than reproduce himself (assuming that the population is still growing), with the result that, by avoiding his birth, we avoid the burden of providing for his descendants in excess of one per generation. (The initial investment creates an annuity, i.e., it will support one person at a constant income indefinitely.) And we ignore the fact that he and his descendants would have to share to some extent in the rise in living standards in later periods and so would have to be provided with more capital. As the marginal man, he will not save much and so is likely to be a burden in these respects.

5 The children whose lives are prevented would all have been under 15 at the end of our 15-year period and their consumption would probably have been less than that of adults. Statistically the Perspective Plan treats children and adults as equal; it aims at a given average level of consumption per head. Nevertheless one should make allowance for this factor in assessing the 'saving' in consumption over the period resulting from a smaller population of under 15s.

6 The benefits accrue evenly over a long period, unlike some investments with high depreciation, the benefits of which accrue quickly.

7 The effects on the distribution of income will be beneficial,

since income per head is generally lowest in large families, the proportion of which should be reduced by population policy.

We shall ignore these factors. They tell in opposite directions, they are secondary, and they are not easy to assess in quantitative terms.

## **The Scale of Outlay**

The outlay that might be justified by an approach of this kind is large. Suppose that it was possible to reduce the rate of growth of population by one-third (which means reducing the birth rate by only about one-fifth) by expenditure of up to £45 per prevented life (net of expected mortality over the age 0-15). That would mean that in total over the 15 years, 1960/61 to 1975/76, it was worth spending anything up to £2,800m on population policy (£45 x 62.3m). That is equivalent to £187m a year. This seems a staggering figure. It is, however, only about 6% of the total investment over the 15 years proposed in the Perspective Plan (£46,750m).

If the cost of preventing births is as high as that of providing for the extra population, there is of course no net gain from choosing to limit population: a larger population may be preferred to a smaller one at the same living standard. The gain arises if the cost of preventing the birth is smaller. There is every reason to suppose that for a considerable measure of population restraint this must be so. Indeed the main point that is brought out by a calculation of this sort is that the outlay which could be justified vastly exceeds what is likely to be spent for a very long time, if ever. The amount allocated to population policy for the whole period of the Third Five-Year Plan is £37m, but present evidence suggests that actual expenditure is lagging behind the Plan and will not reach even this figure. Population experts seem confident that a great deal could be achieved by a real drive and that the costs would not be great. What is needed is organisation, staff and campaigns reaching out to the villages. Certainly such information as one can find suggests that the actual costs of birth control can be small and that the response to well organised campaigns can be high.

## **Conclusions**

From an analysis of this kind one can say firmly that, if the objective of Indian planning is to raise living standards, the amount that ought to be spent on population policy vastly exceeds the sums now being spent; and that the outlay that can

be justified on economic grounds almost certainly exceeds – probably by a large amount – the sums likely to be required.

It has not been possible to explore experience of family planning in the field in sufficient detail to say what the response to different outlays and policies is likely to be. Such evidence as has been found suggests that it is still early to draw any conclusions: a family planning campaign may draw a low response for a given outlay at first, when people are unfamiliar and suspicious of it, and it may yield an increasing response as it catches on.\* Better evidence of the results for a given outlay might be obtained from a fuller investigation of work in the field undertaken so far, but it may have to wait until programmes have been expanded and more experience has been obtained.

Hence the first two conclusions are that, from the point of view of economic policy and planning, there is an urgent need

(a) to expand programmes as fast as possible;

(b) to survey the results obtained for given outlays so far – and in the future as the programmes develop, so as to get a better idea of the response to different outlays.

In this context, it might in time be possible to survey the experience of different States where population policy has been pursued with varying vigour. But in the short run, examination of smaller areas where experiments have been conducted is probably the best approach, because experience has been so limited.

More generally, there is the broader question of the priority and attention which should be given to population policy in economic planning.

An outsider coming to India from Europe or America is bound to be appalled by the poverty and, partly because he is new to the sight of poverty and disease amongst children, he is likely to feel instinctively that on moral grounds, population policy should have a high priority. His feelings are likely to be confirmed if he looks at the figures or makes any calculations, of the kind made here of the potential returns from population policy. This does not mean that outlay on industrialisation or in other directions should be cut back. It fully deserves the priority it gets; population policy costs so little, in terms of resources, that it could be added on.

What is bewildering is the way in which population policy seems often to be treated as a side issue, peripheral to the problems of economic and social development. By some it is explicitly

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\*See, for example, the Ford Foundation Report on Vasectomy Camp Satara, Maharashtra, December 1962.



argued that family planning will catch on as economic and social development proceeds, and that it must be left to develop more or less spontaneously. This view tends to imply that there is some natural law of economic development. Indeed it is a form of naive determinism, probably derived implicitly from European and other countries which, through the accidents of history, experienced economic development earlier and in different conditions. Its proponents do not face the question of how long it will take to raise living standards, if the population grows at 2% to 2½% a year. Nor do they ask whether, if people were offered the choice, they would prefer to go on having unlimited families until gradually they get richer, rather than to be able to limit their families now and advance more rapidly.

That, however, is the extreme, explicit view. More commonly one seems to find the view that population policy is a good thing but that it does not really belong in the main stream of economic and social planning. Because social organisations and committees of ladies play a part in the field, there is perhaps a natural tendency to regard it as an area for 'do-gooders'. (The way in which foreign visitors seize on the subject may add to this feeling.) But there may be more deep-rooted explanations to this attitude.

One explanation, put forward by Professor Myrdal is that because population policy is one of those measures which requires an attack on traditional attitudes and practices, politicians and all cautious people hesitate to act. They will pursue industrialisation, since it opens up a new, futuristic field of activity and meets no social resistance; here, such vested interests as there are (existing firms and trades unions) generally welcome expansion. But where economic and social development means changing traditional attitudes and practices – notably, population, education and agriculture – there are real obstacles of prejudices (and, in the case of population and education, there are vested interests); so cautious men, from politicians downwards, are shy.

Another explanation is that economists fight shy of these subjects because they are not susceptible of precise analysis in traditional economic terms. The industrial sector, where input-output relationships and capital-output relationships can be manipulated, has the attractions of conventional formality and of precision (apparent or real). These are lacking in the uncertain fields of traditional activities, such as population policy, where social change is important.

Whatever the validity of these explanations – they appear to have considerable force – one is bound to question the passive

attitude to population policy and to urge a more active one. In a real sense, population policy belongs in the field of long-run planning. The delay between decisions and their fruits is bound to be long; it is only by taking a long view that one can see the potential gains from different outlays and policies; and only by taking strategic decisions early will the potential gains be realised.

If a long view of this kind is taken, it is possible to see and assess rationally the merits of population policy. The assessment made here is linked to one particular long-term outline which is in circulation now. Its purpose, however, has been to show how this kind of link can be made, in the hopes that it may again be made in the context of future plans.

# 3 Rural Industries

E. F. Schumacher

## Introduction\*

The programmes included in the Third Plan 'are expected to provide employment opportunities for about 14m people.' Yet the labour force is expected to grow by over 17m, and there is a backlog of unemployment of at least 9m, not counting the tens of millions of people who are severely underemployed. It is said that there is therefore an urgent need 'for increasing employment opportunities further' and that 'this will be partly done by expanding the programmes for village and small industries and agriculture'. It is thus immediately obvious that when talking of rural industries the authors are thinking in terms of very large numbers of people – millions rather than thousands; and it is equally obvious that this cannot be implemented by expanding existing programmes but only by a radically new approach.

The total employment effect of all programmes designed to help village and small industries, while an essential contribution to the rural areas, has so far been of negligible proportions when put against the country's needs. In the Third Plan there is the hope that 'small industries' will offer at the end of the period 900,000 additional jobs, not counting part-time employment. But there is nothing in current policies and practice to encourage the expectation that more than a small proportion of these new jobs will be in rural areas. Even if the proportion were 50%, what is the significance of less than half a million new jobs in five years for a rural population whose labour force is growing at nearly 3m a year?

Why has there been so little success in rural industrialisation?

The problem is obviously a peculiarly difficult one; but I have come to the conclusion that the difficulties might have been less formidable if policies had been based on a more realistic diagnosis. Even today, it seems to me, the nature of the task and of its difficulties is not sufficiently understood.

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\*This paper was originally presented to the Planning Commission in New Delhi.



In short, there is a twofold need which, so far, has not been met:

- the need for a suitable technology, and
- the need for a suitable 'set-up' or organisational form.

## Technology

None of the developed countries has ever had to face the problems which are posed in India today and *which arise from the existence and partial infiltration of a foreign technology which is at once vastly superior and vastly expensive.*

If this foreign – i.e. Western – technology were merely superior, without being vastly expensive, the difficulties would still be great, yet small in comparison with those actually encountered. Being so very expensive, the new technology is in fact out of reach for a poor country like India; yet it appears to be within reach because even in a poor country there are some concentrations of wealth whereby the superior technology can be 'afforded'.

No consistent thought seems to have been given to the fundamental question of what level of technology India can afford. It seems to have been assumed that what is 'best' in a developed country must be 'best' in a developing country also. Instead of asking: 'How much can we afford to pay for each workplace?' (capital investment per person in continuing employment), it was thought to be a matter of objective ascertainment to find the amount of capital *required* in various industries. In the report on 'The Third Five-Year Plan', the only references to this subject are in Appendix C; but their purpose is merely to calculate the employment effect of the capital allocations under the Plan:

'For small-scale industries employment of one person would mean an investment on the average of Rs. 5,000 (£370); for handicrafts the estimate is Rs. 1,500 (£111); for coir and sericulture it is roughly Rs. 1,000 (£74).'

'Under large and medium industries there will be different norms of continuing employment. The following Table, which is essentially illustrative, indicates the amount of capital required per person in a number of important industries:

					<i>Capital required per person</i>	
					<i>Rs.</i>	<i>£</i>
Steel	...	...	...	...	160,000	11,900
Fertilisers	...	...	...	...	40,000	3,000
Machine tools (graded)	...	...	...	...	25,000	1,900
Heavy machine building plant	...	...	...	...	100,000	7,400
Foundry (forge plant)	...	...	...	...	100,000	7,400
Coal mining machinery	...	...	...	...	60,000	4,400
Heavy electricals	...	...	...	...	50,000	3,700

'It should, however, be stated that the data on which the

calculations given above are based, are on the whole very meagre. The conclusions which are drawn are, therefore, intended to suggest broad dimensions. Indeed, precision in this field can only come from prolonged study.'

These are the only references to the all-important matter of 'capital per workplace' which I have been able to find, and it is clear that they do not indicate any consciousness of the problem of finding a *suitable* level of technology.

Not that this problem is an unfamiliar one in daily life. Every person has to find the 'level of technology' he can afford – in his kitchen and other household arrangements, his office, his transport, his garden, etc. Every farmer, artisan, shopkeeper, etc., is faced with the same problem; he cannot simply take the 'best', or the 'most efficient', or the most modern equipment; what he can afford stands in some relation to

(a) what he possesses already, i.e. his total capital worth; and (b) his past and current income.

It requires no lengthy argument to agree that India is 'long' in labour and 'short' in capital. This means that she requires a level of technology, or 'capital investment per workplace', that is likely to be very different from that current in the Western countries, which are 'long' in capital and 'short' in labour. At present, in India as in all other developing countries, the most primitive exists side by side with the most advanced – an artisan employing seven shillings' worth of tools, and workers minding machines worth £4,000. But the intermediate industrial technology which would really suit India's conditions does not exist in an articulated form except perhaps accidentally. The situation in agriculture and related fields (e.g. bee-keeping) is much easier, partly because the technological gap between the traditional and the modern is much narrower than in industry, and partly, I think, because there has been more understanding that development must be organic, step by step, and cannot be fruitful if there are excessive jumps.

Under the Second and Third Five-Year Plans the employment effect of the massive investment of £3,000m in 'industries and minerals' (excluding 'small industries') is 1.5m in ten years, or an average of 150,000 new jobs a year. It is obvious that a poor country cannot create large numbers of industrial jobs at a level of technology which requires roughly £2,000 per workplace. As the technology, moreover, is essentially a foreign one, it also requires a large expenditure in foreign exchange, amounting to an average of £1,000 per workplace in the Third Plan.

If, therefore, it is intended to create millions of jobs in industry,

and not just a few hundred thousands, a technology must be evolved which is cheap enough to be accessible to a larger sector of the community than the very rich and can be applied on a mass scale without making altogether excessive demands on the savings and foreign exchange resources of the country.

I believe that it is not very difficult, from an engineering point of view, to devise such a technology, provided the engineers can be told in fairly precise terms what is wanted. It is no use simply asking for 'an intermediate technology', nor does it suffice to say: 'We want a technology that employs the minimum of capital', for the minimum is zero. If one specified 'the minimum of capital consistent with profitable production at a wage of at least two rupees a day', one would, I think, be asking the engineer to go beyond his competence and become a businessman. The simpler the specifications, the better will be the results, and the simplest would be a statement of the amount of money to be spent on the equipment of each workplace. As a start, I should therefore suggest that the *average* investment per workplace in manufacturing enterprise, suitable for widespread rural industrialisation, would be of the order of Rs. 1,000, not counting the cost of building. In some cases, no doubt, Rs. 2,000 per workplace could be fully justified; in other cases, a much smaller amount might suffice.

What is needed, I suggest, is that detailed design studies should be undertaken on this basis for all industries envisaged for establishment in rural areas. The studies themselves will disclose whether this average of Rs. 1,000 is realistic and what variations from the average might be required by different industries. All that the figure of Rs. 1,000 per workplace is meant to do is to indicate an order of magnitude and to provide a starting point for design studies.

What can be said in favour of this choice? First, that the cost of a workplace would be fairly close to the amount a man can earn in a year; as people normally can cope with money matters if the sums involved are not greatly in excess of what they can earn in a year, this level of capitalisation would appear to be 'within reach' of any able man who wants to become, or remain, his own master; second, that at this average level of capitalisation the central government can stand ready to finance any number of workplaces than can be organised – Rs. 1,000 crores would be enough to equip 10m workplaces – so that unrestricted use could be made of the free, spontaneous organising power of the people; third, that the foreign exchange content of equipment at this level of technology would be so small as not to constitute a

significant problem; and fourth, that the type of equipment involved would, in general, be so simple that it could itself be produced in small-scale industry.

It may well be that these arguments would still hold good at the level of Rs. 2,000 per workplace. Only detailed design studies can settle the point.

Industrialisation on a mass basis is possible when there is a fairly high degree of self-sufficiency in equipment, so that the repair, maintenance, and replacement of equipment can be done largely from nearby resources. If in this sense 'the circle can be closed', then, and only then, can there be self-sustained growth. It is the structure of real things, not the appearance of symbols (like the rate of saving) which decides these matters.

With democratic decentralisation and the introduction of *Panchayati Raj*, it is expected that the people's institutions will take over more and more responsibilities for the establishment of village industries and small industries in rural areas. But how could they succeed unless a suitable technology is available for them? I believe, therefore, that a most determined, centrally directed effort towards the establishment of such a technology is now most urgently required.

The 'intermediate technology' is required in two versions, with electrification and without. Even by the end of the Third Plan the number of towns and villages electrified is likely to be only 43,000, although this will include all towns and villages with 5,000 inhabitants or more and about half of the 10,000 villages with a population between 2,000 and 5,000. A large part of the population will have to carry on without electricity. It is moreover uncertain whether the installation of new capacity will be able to keep step with the growth of demand, and for many years to come there may be power cuts damaging to industry. 'The bulk of the increase in energy consumption over the next 20 years would go to the new and existing urban communities. By 1981, while 160m people, forming one-fourth of the population, might come close to enjoying the benefits of energy equivalent of one ton of coal, the remaining three-fourths of the population, numbering 480m, is likely to be consuming 0.28 ton of coal per capita per year.'<sup>\*</sup>

Urgent attention has therefore to be given to the utilisation of such minor or scattered sources of energy as cow-dung methane, solar heat, wind power, peat, etc. Technical work on these subjects, I suggest, is of greater relevance to India's problems

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<sup>\*</sup>J. C. Kapur: *Socio-Economic Considerations in the Utilisation of Solar Energy in Under-developed Countries*, Vol. VI, No. 3, July 1962.

than work on nuclear energy – the most capital intensive and costly source of energy ever tackled.

It is possible and even probable that far more of the 'intermediate technology' exists already than is known to any one person or authority. Proposals to create a 'Technological Information Service to serve rural needs' therefore deserves sympathetic consideration.

## Organisational Form

Industry is a part of business, and business requires a business organisation. What kind of business organisation would be suitable for the creation and operation of viable industries in rural areas?

The comparative lack of success of the policies intended to promote industry in rural areas is, I believe, largely due to failure to evolve an effective organisational set-up for the purpose.

The Village and Small Industries Committee (Karve Committee) was asked in 1955 to prepare a scheme to ensure 'that the bulk of the increased production during the (Second) Plan period of consumer goods in common demand . . . be provided by village and small-scale industries', with the special injunction '*that production and marketing in these industries is (to be) organised, in the main, on co-operative lines.*' The results of the scheme have not been particularly promising and I am convinced that one of the main causes of the disappointment is to be found in the attempt to carry this scheme through by means of co-operative societies.

The Chairman of the Co-operative Advisory Committee of Khadi and Village Industries Commission, Mr D. A. Shah, has described the artisans in rural areas as follows:

'These artisans are usually too poor and devoid of tangible assets to be able to obtain money on reasonable terms for production or other purposes. They have been too backward, illiterate and conservative to be keen on the adoption of technical improvements, to understand the business side of purchase of industrial requisites and sale of finished products, generally to *understand the value of organised effort and to enforce among themselves collectively self-imposed discipline.*'\*

This, I believe, is an accurate description of the present situation, and it is all the more surprising that the author goes on to assert that

'The only organisation which would suit the artisans best is the co-operative organisation which works with 'service' and

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\*See 'Role of Co-operatives in Promotion of Village Industries', by D. A. Shah, in *Khadi Gramodyog*, November 1962, p. 137.



not 'profit' motive, attaches the utmost importance to artisans as men, increases their self-respect and dignity by giving them equal rights *and makes them joint masters of their enterprise.*'

The co-operative mode of organisation is no doubt suitable and effective in a great number of cases, particularly for men who already possess tangible assets, are used to risk-taking and self-imposed discipline, and are engaged in a line of business with a relatively settled technology. None of these conditions is present in the case here under consideration. Mr D. A. Shah considers it 'obvious that efforts in the near future will have to be directed more towards consolidation than towards expansion'. It seems to me impossible to disagree with this verdict, and it follows that a different form of organisation has to be found if industries are to be established in rural areas on a significant scale.

The most suitable form of organisation for the purpose would seem to me to be the public corporation, i.e. a publicly-owned company set up under a special 'constitution'.

The essential rights of ownership, whether private or public, can be divided into two groups – rights relating to management, and rights relating to pecuniary matters. In private enterprise, all these rights (in theory at least) lie with the private owner. In publicly owned enterprise, they have to be specifically defined and consciously distributed. This definition and distribution of rights is spelled out in the 'constitution' of the public corporation.

In the case of an 'Area Development Corporation', set up by the Project Officer to promote industrial enterprise in his rural area, the definition of the *pecuniary rights* of ownership would not be difficult. I assume that the entire capital of the Corporation would come from public funds as a 10-year interest-free loan; that all profits earned would be ploughed back into the business; and that there would be some general provision to the effect that in good time before the end of the 10-year period there would be negotiations for the purpose of turning the legal ownership of the Corporation over to a local body or bodies – panchayats, co-operatives, or some other suitable local organisation.

As regards the *management rights* of ownership, a careful and precise delimitation is of vital importance. I suggest that the owner, i.e. the Central Government as represented by the Project Officer, should have only four clearly defined rights:

- 1 To appoint the General Manager;
- 2 To approve (or disapprove) the general lines of development as proposed by the General Manager;
- 3 To call for information of any kind relating to the affairs of the Corporation; and

- 4 To lay down the form in which the Corporation's accounts are to be kept and their mode of presentation.

All other rights and duties of management should lie with the General Manager. While the Project Officer would be ready and anxious to give the General Manager every help and support, and to make available to him every type of assistance obtainable from Government, he would not attempt to run the Corporation for him and would not be entitled to interfere with day-to-day business decisions.

The device of the Public Corporation effects a clear separation of 'administration' and 'enterprise'. Such a separation, I believe, is essential if publicly-financed business is to be successful. It makes possible a clear-cut separation of accounts and promotes the greatest attainable clarity in the distribution of responsibilities as between Government and Business.

If an 'Area Development Corporation' succeeds in starting a number of different industries, it should set up a subsidiary corporation for each of them. This may appear to some to be excessive formalism; yet it has proved its soundness in business throughout the world, including even the Communist countries.

I therefore should visualise the sequence of tasks as follows:

First, a preliminary survey undertaken primarily by the Project Committee and the Project Officer, yielding a general outline of the industrial activities to be launched.

Second, the setting up, by the Project Officer, of an 'Area Development Corporation' with capital provided from central funds.

Third, the appointment, by the Project Officer in consultation with the Project Committee, of a General Manager for the Corporation.

Fourth, the working out, by the General Manager (with any help he can obtain) of a detailed industrial project, or projects, giving full technical and commercial data, and submission of the same to the Project Officer for general approval.

Fifth, commercial implementation of the project by the General Manager.

## **Protection**

Is the output of industrial enterprises in rural areas likely to be competitive?

It does not seem to me possible to answer this question in

advance, whether from general principles or from experience. Rural industries would have at least three advantages as against large-scale enterprise located in metropolitan areas: much lower wages per man/shift – although these should not be less than two to three shillings; much lower capital costs, partly owing to the interest-free loan; and much lower transport and distribution costs, if articles are made mainly from local materials for local use. These advantages, maximised by the employment of the kind of ‘intermediate technology’ of which I have spoken, may well make these industries viable.

If not, some means of protection has to be considered. To protect a rural industry against the competition from Bombay or Calcutta is, of course, no more “uneconomic” than to protect industries in Bombay or Calcutta against the competition from the USA, Britain, Germany, or Japan. Additional industry brings additional wealth, even if it appears to be non-competitive. The question is simply one of alternatives: if the alternative to a protected industry is no industry at all, protection is justified; if the alternative is an industry which could survive without protection, protection is ‘uneconomic’ and unjustified. In the case of rural industries, the former would be more typical than the latter.

Yet it seems to me that it would be wrong to raise this question of protection at this stage, before there are any fully formulated projects depending on protection. It should not be assumed that the ‘intermediate technology’ is insufficiently effective to ensure viability. There are many cases even in the advanced countries where, often against everybody’s expectations, a more ‘primitive’ technology proves to be more economical than the most modern and sophisticated one.

One method of ‘protective assistance’, however, should be favourably considered at once – the method of bulk buying at fixed prices. Public authorities at all levels should go out of their way to cover their own requirements by placing bulk contracts at fixed prices, generously determined, with Area Development Corporations. This practice should be continued on a preferential basis for a number of years, until the corporations have overcome their initial difficulties, which are bound to be prodigious. In some cases, it would be desirable to go even further and to engage the economic power of the State to relieve the producer corporation of all marketing anxieties by guaranteeing a stable market (subject to quality control) at fixed prices for a steadily rising volume of output. This was proposed by the Karve Committee to assist producer co-operatives and could with equal advantage be used to help publicly-owned Area Development Corporations.



## Final Remarks

A few final remarks may help to avoid possible misunderstandings.

If I say that co-operatives are not a suitable instrument for the extremely difficult task of starting industries in rural areas, I am thinking of genuine co-operatives where the co-operative principle is applied not only with regard to the *pecuniary rights* of ownership, but also with regard to the *management rights*. It is, of course, possible to have so-called co-operatives in which all management rights are vested in a general manager who in fact acts as an employer. The crux of the matter is the method of management, including management's right to determine the technology to be employed, to hire and fire labour (subject to decent controls), to determine price policy, etc. If the co-operative principle is applied only to the pecuniary rights of ownership, the effectiveness of the organisation need not be impaired.

The setting up of public corporations does not mean that there will necessarily be no room for private enterprise. The question of whether private enterprise should be allowed and even encouraged to set itself up in competition with a public corporation need not be prejudged; it can be decided from case to case in the light of circumstances.

I have said nothing about the Project Officer's staff requirements. His own staff, I am sure, should be kept to the very minimum; and the staff of the General Manager, who is doing the actual work, must be left entirely to the latter's own discretion.

# 4 Indo-British Trade Prospects

by K. B. Lall

In the opening phases of the Indian industrialisation programme the emphasis was inevitably placed on import savings. As the process of industrialisation gathers momentum, a more balanced and a better integrated approach is fast emerging. It is being increasingly realised that the momentum can be maintained only with increased imports, which can be paid for in cash only if the country's foreign income rises. The attention of planners and industrialists is now increasingly focused on export promotion. The pattern of trade with India will inevitably go on being adapted to the changing requirements of a dynamic economy. But the volume of imports and exports cannot but rise to higher and higher levels.

Export earnings during the Third Five-Year Plan have been estimated at Rs. 37,000m (£2,760m). On a modest estimate, it has been considered that unless by 1970-71 India is able to earn from its exports Rs. 14,000m (£1,020m) a year, it will be difficult to increase cash purchases from abroad to the desired level and to meet other obligations.

It is satisfactory to note that of late Indian exports have been showing a rising trend. During the first half of the financial year 1963-64, £277m were earned from exports as compared with £236m during the corresponding period of the previous year.

A region-wise analysis, however, shows that the greater part of expansion in India's export earnings has been contributed by sales to the United States, the ECAFE region, and the centrally planned economies. There has been some increase in the exports to West Europe, but the relative share of this region in India's exports has declined from 33.4% to 30.7%. Within Western Europe itself the share of Britain has gone down in absolute and relative terms, from £57m (23%) to £55m (20.4%).

Imports into Britain continue to rise, but, unhappily, not from India; India's exports are also rising but not to Britain.

The picture presented by British exports to India is also not particularly pleasing. Imports into India are being maintained at a high level, but Britain does not enjoy a fair share of India's

market, commensurate with traditional links between the two countries. While British exports to the rest of the world are rising, the sales from Britain to India stagnate at a low level.

Britain follows a liberal policy in regard to imports from India, and India wishes to increase her imports from Britain. And yet, their mutual trade forms a declining proportion of the total trade of the two countries. The reasons for these paradoxes need to be identified. Apparently, some structural changes are called for if the trend is to be reversed.

In the case of tea and tobacco, a saturation point in terms of consumer demand seems to have been reached. Despite quota free and duty free treatment accorded to India's industrial products, there are no visible signs of significant diversification in India's exports. Nor has India been able to claim a fair share of Britain's rising imports of industrial, particularly consumer, goods from third countries.

Indian exporters of industrial products complain of insuperable difficulties in penetrating Britain's highly organised import and distribution structure. British partners of Indo-British joint ventures continue to concentrate their efforts on India's home market and on markets of India's neighbours. A determined endeavour to change and adjust the nature and range of their co-operation to suit the changing situation is called for from Indian and British *entrepreneurs*. The sectors of British economy in which Indian production can play an expanding role to the benefit of both countries need to be identified. A concerted drive to develop the right type of production in India and a fruitful pattern of co-operation in selling Indian products on the British market needs to be developed. This is a new field for British capital and techniques to move into. Rich rewards await those who possess the necessary initiative and are able to bring their imagination to bear on age-old contacts and interests.

In the field of textiles, opportunities await those who can seize upon them. It is not so necessary to increase the volume of imports from India; but if British textile interests persuade themselves to permit their traditional defensive approach to be replaced by new initiatives to bring about a partnership based on factor endowments, great benefit will flow to the industries of both countries. The protection claimed and enjoyed by British jute industry has, at best, fostered stagnation and has prevented the diversification of Dundee's economy. The high prices and short supplies forced on the consumer in consequence have helped synthetic substitutes to gain at the expense of the products of both Indian and British industries. British jute interests may find

that if they turn their attention to the improvement of the product and to adoption of marketing techniques to suit modern requirements, they will serve their own interests better.

British leather industry and those engaged in the production of engineering goods may also find that a structural change in their co-operation with Indian producers might bring them greater advantages. Such a change can conceivably help to place British industry in a better position to meet competition from third countries and in the neighbouring markets of Western Europe. If production in India is developed to a higher level and if a regular offtake of India's semi-products is planned, the two production structures can be so interwoven as to enable the industries in the two countries to derive maximum benefit from their respective endowment factors.

India has made an abiding contribution to British food habits. Modern developments in the fields of transport and processing can, if pressed into service, be relied upon to widen the scope of this contribution. Attention of British processors and exporters has still to be directed to such Indian fruits as chicoo, guavas, bananas and mangoes. Onions, potatoes and green vegetables can be imported from India during seasons when supply from other sources is scarce. Cooked curries and frozen fish can add to the wide range on sale in British stores. It is a matter of some surprise that one misses Indian sugar at a British table. Perhaps this is due to the fact that when the Commonwealth Sugar Agreement was negotiated, India did not have a sufficient surplus to sell to distant destinations. It is to be hoped that this Agreement will soon be amplified to include India as a participating Member.

Even British livestock may thrive on processed animal feeds, the production of which in India is still to be organised on a massive scale with British assistance.

There has been stagnation in the export of the products of Indian cottage industries such as carpets and handicrafts. Of late, considerable advances have taken place in designs and standardisation but much work remains to be done in organising the marketing of these products. With the growth in personal income and increases in the standards of personal consumption in Britain, opportunities for expansion of these exports are substantial. The potentialities of developing India as a base for the supply to the developing world of labour intensive consumer goods, which can no longer be economically produced in Britain, need to be investigated. It seems certain that those who survey this field will not labour in vain.

Though the British steel makers and manufacturers of engin-

earing products have long occupied an important place in the Indian market, the Indian producers of mineral ores have not counted the British industry as one of their important customers. Now that Britain's expanding requirements can hardly be met from European sources of supply, eyes are turning to vast Indian reserves from which British requirements can be drawn upon in a steadily increasing measure. The arrangement made for the sale of ores to Japan provides a convenient model for Indo-British co-operation in this field.

Recent developments have brought to light yet another hopeful avenue. Plans for economic development in other parts of the Commonwealth need to be sustained by an increased inflow of goods and equipment which are not produced domestically. The kind of goods which are now produced in India are exactly the kind of goods for which demand is on the increase in the developing parts of the Commonwealth. But because financial assistance provided by the United Kingdom is tied to British supplies, aid funds do not help to enlarge Commonwealth trade. If these funds are permitted to be utilised all over the Commonwealth, the impact on Commonwealth exchanges cannot but be beneficial.

The economic changes which are taking place in India, in other parts of the Commonwealth and in the United Kingdom have diversified the economy of the Commonwealth and can only have a stimulating effect on trade within the Commonwealth. But the planners in the Commonwealth have still to establish working arrangements to 'match and marry' their respective plans so that the needs of one country are met by the development of resources in another country and the import requirements of one economy become an export opportunity for another part of the Commonwealth.

Those who believe that trade exchanges between India and Britain must stagnate or can expand only at a slow rate, base their judgment on past experience and not on future possibilities. Their judgment will prove to be wrong when the efforts of those who have built up a profitable connection with India are joined by enterprising pioneers in search of new opportunities and both jointly train their sights on the vast potential which awaits exploitation.

# Appendix I

## India's Third Five-Year Plan, 1961-1966

### 1 General Aims

The five principal aims of the Third Plan are stated to be: (p 48)\*

1 to secure an increase in national income of over 5% p.a., the pattern of investment being designed also to sustain this rate of growth during subsequent Plan periods;

2 to achieve self-sufficiency in food grains and increase agricultural production to meet the requirements of industry and exports;

3 to expand basic industries like steel, chemical industries, fuel and power and establish machine-building capacity, so that the requirements of further industrialisation can be met within a period of ten years or so mainly from the country's own resources;

4 to utilise to the fullest possible extent the manpower resources of the country and to ensure a substantial expansion in employment opportunities;

5 to establish progressively greater equality of opportunity and to bring about reduction in disparities in income and wealth and a more even distribution of economic power.'

In order to achieve a rate of growth of over 5% p.a. it is estimated (p 51) that the rate of investment must increase to 14% or more of national income, from its level in 1961 of about 11.5%, and that this will mean that the rate of domestic savings must increase to about 11.5% of national income by the end of the Third Plan, from its level in 1961 of about 8.5%.

The following are some of the general statements of policy:

'In the scheme of development during the Third Plan the first priority necessarily belongs to agriculture.' (p 49)

'In the Third Plan, as in the Second, the development of basic industries such as steel, fuel and power and machine-building and chemical industries is fundamental to rapid economic growth. These industries largely determine the pace at which

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\*Page numbers refer to the Report on the Plan.

the economy can become self-reliant and self-generating.' (p 50)

'... while the private sector will have a large contribution to make, the role of the public sector in the development of the economy will become even more dominant.' (p 50)

The development of education and other social services is 'essential for ensuring a fair balance between economic and social development and, equally, for realising the economic aims of the Plan'; its importance 'cannot be too greatly stressed'. (p 50)

'It is difficult to provide work at an adequate level of remuneration to the entire labour force.' (p 51). It is estimated that development programmes in the Plan may provide 14m extra jobs, as against the increase in the labour force during the Third Plan of about 17m. The gap is to be filled 'through large-scale rural works programmes, village and small industries and other means.'

'... it is inevitable that from time to time inflationary pressures may emerge. The Plan, therefore, postulates a price policy which will ensure that the movements of relative prices are in keeping with its priorities and targets and that the prices of essential goods which enter into the consumption of low income groups do not rise unduly. It will also be essential to restrain the consumption of relatively non-essential goods and services.' (p 52)

## 2 Physical Targets

National Income is to rise by 30% and per capita income by 17% over the Plan period.

**Selected Targets**  
(Table I, p 55)

<i>Item</i>	<i>Unit</i>	<i>1960/1</i>	<i>1965/6</i>	<i>Percentage Increase in 1965/6 over 1960/1</i>
Index number of agricultural production	1949/50 = 100	135	176	30
Foodgrains production	million tons	76	100	32
Nitrogenous fertilizers consumed	thousand tons of N	230	1,000	335
Area irrigated (net total)	million acres	70	90	29
Co-operative movement advances to families	£m	150	400	165
Index number of industrial production	1950/1	194	329	70
Production of steel ingots	million tons	3.5	9.2	163
aluminium	thousand tons	18.5	80	332
machine tools	value in £m	4.1	22.4	445
sulphuric acid	thousand tons	363	1,500	313
petroleum products	million tons	5.7	9.9	70



**Selected Targets**  
**(Table 1, p 55) continued**

<i>Item</i>	<i>Unit</i>	<i>1960/1</i>	<i>1965/6</i>	<i>Percentage Increase in 1965/6 over 1960/1</i>
Cloth	million yards	7,476	9,300	24
<i>of which mill made</i>	million yards	5,127	5,800	13
<i>hand-loom, power</i>				
<i>loom and khadi</i>	million yards	2,349	3,500	49
Minerals				
<i>iron ore</i>	million tons	10.7	30.0	180
<i>coal</i>	million tons	54.6	97.0	76
Exports	£m	482	636	32
Power				
<i>installed capacity</i>	million kW	5.7	12.7	123
Railways				
<i>freight carried</i>	million tons	154	245	59
Road Transport				
<i>commercial vehicles</i>				
<i>on road</i>	thousands	210	365	74
Shipping				
<i>tonnage</i>	thousands of GRT	90	109	21
General Education				
<i>students in schools</i>	millions	43.5	63.9	47
Technical Education				
<i>engineering and</i>				
<i>technology degree</i>				
<i>level intake</i>	thousands	13.9	19.1	37
Health				
<i>hospital beds</i>	thousands	186	240	29
<i>doctors practising</i>	thousands	70	81	16
Consumption Levels				
<i>food</i>	calories per capita			
per day		2,100	2,300	10
<i>cloth</i>	yards per capita			
per annum		15.5	17.2	11

### 3 Expenditure

The Programmes of development in the public sector are estimated to involve an outlay of over £6,000m. But it is thought that 'part of the outlays corresponding to the physical programmes that have been approved may spill over into the Fourth Plan' and public financial outlays in the Third Plan are taken at £5,600m. (p 90)

#### Public Expenditure on the Plan

Investment in the public sector ... ..	£m
Transfers to assist selected investments in the private sector ...	4,550
Current outlays on social services and other development but	
recurring items ... ..	150
	900
<b>Total public expenditure ... ..</b>	<b>5,600</b>

Total investment by the public and private sectors is given as follows (p 91)

### Investment in Public and Private Sectors

Investment in public sector ... ..	£m
Investment in private sector ... ..	4,550
(of which to be found by the private sector) ... ..	3,250
	(3,100)
	<b>7,800</b>

## 4 Allocation of Investment

The allocation of this investment of £7,800m is given as follows (p 59):

	Public %	Private %	Total %
Agriculture and community develop- ment ... ..	11	19	14
Irrigation ... ..	10	*	6
Power ... ..	16	1	10
Village and small industries... ..	2	7	4
Organised industry and minerals ... ..	24	26	25
Transport and communications ... ..	24	6	17
Social services and miscellaneous ... ..	10	26	16
Inventories ... ..	3	15	8
	<u>100</u>	<u>100</u>	<u>100</u>

## 5 Financial Resources

### (a) PUBLIC SECTOR

The following estimates of financial resources for the public sector are given (Table 2, p 95)

### Financial Resources—Public Sector

	£m	%
1 Balance from current revenues (excluding addi- tional taxation) ... ..	400	7
2 Contribution of railways ... ..	75	1
3 Surpluses of other public enterprises ... ..	350	6
4 Loans from the public (net)... ..	600	11
5 Small savings (net) ... ..	450	8
6 Provident funds (net) ... ..	200	4
7 Steel equalisation fund (net) ... ..	75	1
8 Balance of miscellaneous capital receipts over non- plan disbursements ... ..	125	2
<b>9 Total of 1 to 8 ... ..</b>	<b>2,275</b>	
10 Additional taxation including measures to increase the surpluses of public enterprises ... ..	1,275	23
11 Budgetary receipts corresponding to external assis- tance ... ..	1,650	29
12 Deficit financing ... ..	400	7
<b>Total ... ..</b>	<b>5,600</b>	<b>100</b>

\*Included under agriculture and community development.

**Reserves.** These provisions do not involve any drawing on reserves, which were heavily depleted during the Second Plan.

**Deficit Financing.** It is thought that deficit financing should be limited to £400m in order to keep down inflation. (p 99)

**Foreign Assistance.** Total estimated foreign assistance over the Plan period is £2,400m, including private foreign investment and sales of US agricultural commodities under PL480 to the value of £450m. Of this amount it is estimated that only £1,650m will be available for the budget because of the following deductions:

	£m
To be used for the refinancing of maturing obligations ... ..	375
Private foreign investment and official loans directly to the private sector (from, for instance, the World Bank, IFC and the US Export-Import Bank) ... ..	225
Proceeds from PL480 sales to be retained by the United States ...	150
	<hr/> 750 <hr/>

**Additional Taxation.** 'With the normal increase in tax yields as a result of rising national income and the additional taxation of £1,275 that is proposed over the Third Plan period, the proportion of tax revenues to national income will go up to 11.4% by the end of the Third Plan' (from about 8.9% at the end of the Second Plan). (p 102)

It is stated that the yield from direct taxation is 'relatively small' (p 103); there will therefore have to be a 'substantial increase' in indirect taxation, which will involve some sacrifices.

#### (b) PRIVATE SECTOR

'Broadly speaking, considering the trends in the Second Plan period, and on a view of the likely trends in the course of the Third Plan, it is felt that a total of £3,750m by way of private investment can probably be financed, consistently with the public sector claim on savings.' (p 105) Investment by both sectors must draw on 'the same pool of savings'. The total of £3,250m includes transfers of £150m from the public to the private sector. External assistance to and investment in the private sector is expected to be about £225m.

#### (c) EXTERNAL RESOURCES (for both sectors)

For the Third Plan, the financing of foreign exchange requirements is planned as follows (p 112, Table 8):

## Foreign Exchange

	<i>Second Plan £m</i>	<i>Third Plan £m</i>
<i>Receipts (1)</i>		
Exports ... ..	2,284	2,775
Invisibles (net) excluding official donations (2) ...	314	nil
Capital transactions (net) excluding receipts of official loans and private foreign investment (3)...	- 129	- 425
External assistance ... ..	693	1,950
Draft on foreign exchange reserves ... ..	447	nil
<b>Total ... ..</b>	<b>3,609</b>	<b>4,300</b>
<i>Payments (1)</i>		
Imports of machinery and equipment for plan projects ... ..	3,609	1,425
Components, intermediate products, etc., for raising production of capital goods (4) ... ..		150
Maintenance imports (5) ... ..		2,725
<b>Total ... ..</b>	<b>3,609</b>	<b>4,300</b>

- (1) PL480 imports £450m are excluded from both sides.
- (2) Invisibles include receipts from tourism, transportation, insurance, etc., payments of interest on foreign loans, and payments of freight charges on PL480 imports; they are expected to balance to zero.
- (3) Capital transactions include repayments of principal on foreign loans and payments to Pakistan under the Indus Waters agreement, and to Kuwait for the return of Indian currency.
- (4) This is an acknowledged under-estimate; the revised estimate is that £1,520 will be required under this head.
- (5) This also is an under-estimate. It is thought that as much as £2,850m will be needed. It is hoped to fill the resulting gap by an increase in exports.

On this basis, the requirements of foreign assistance and foreign private investment (excluding PL 480 aid) are estimated as follows (p 109):

## Aid Requirements

	<i>£m</i>
For imports of machinery and equipment for Plan projects ...	1,425
For 'non-project imports' ... ..	150
For refunding of maturing obligations ... ..	375
<b>Total ... ..</b>	<b>1,950</b>
<i>Of which foreign private investment and official loans directly to the private sector ... ..</i>	<i>225</i>

# Appendix II

## Foreign Aid

### 1 Aid Requirements

#### Foreign Assistance for the First Three Plans

	<i>Total investment</i>	<i>Foreign assistance*</i>	<i>Foreign assistance as percentage of total investment</i>
	<i>£m</i>	<i>£m</i>	<i>%</i>
First Plan (actual)	2,510	147	6
Second Plan (actual)	5,050	1,020	20
Third Plan (estimated)	7,780	2,400	31

#### Estimated Requirements of Foreign Assistance\* for the Third Plan

	<i>£m</i>
For imports of capital goods and equipment required for Plan projects ... ..	1,425
For components, intermediated products, etc., for increasing the production of capital goods ('non-project imports') ... ..	150
For the re-financing of maturing obligations ... ..	375
<b>Total</b> ... ..	<b>1,950</b>
<i>(of which foreign private investment and loans directly to the private sector from, for instance, the World Bank, IFC and the US Export-Import Bank) ... ..</i>	
Imports of surplus US commodities under Public Law 480 ... ..	450
<i>(rupee payments for which to be retained by US)</i> ... ..	<i>(150)</i>
<i>(to be returned to Indian Government)</i> ... ..	<i>(300)</i>
<b>Total</b> ... ..	<b>2,400</b>

### 2 Sources of Aid

#### CONSORTIUM AID

Most of the foreign aid for India's Third Plan will be committed through the Aid India Consortium. This was set up by the World Bank in 1956. Its members are the World Bank and the Bank's affiliate institution, the International Development Association (IDA), the United States, the United Kingdom, Canada, West Germany, Japan, France, Italy, Austria, Belgium and the Netherlands (the last five were not original members).

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\*Including PL480 imports and foreign private investment.

## Foreign Aid Committed through the Consortium (£m)

	1961/2	1962/3	1963/4	Total committed 1961/2- 1963/4	Committed for rest of plan
USA	195	155	155	505	
Germany	80	50	36	166	22
UK	65	30	30	125	
Japan	18	20	23	61	
Other countries	15	56	44	115	
IBRD/IDA	89	71	87	247	
Total	462	382	376	1,220	

### NON-CONSORTIUM AID

Of aid from non-Consortium sources for the Third Plan, the only significant commitment is that of the USSR, which totals almost £178m. Contributions have also been made by Australia, New Zealand, Switzerland, Czechoslovakia, Yugoslavia, Poland, Norway and Rumania, by most of the UN agencies, and by a consortium of US banks and the Ford and Rockefeller Foundations.

### INDIVIDUAL DONORS

#### USA

**Committed through Consortium for first three years  
of Plan: £505m**

The USA has made more than half of all commitments to India since 1945.

### Obligations and Loan Authorisations 1946/7-1962/3

PL 480 ... ..	...	...	...	...	£m 671
AID Programmes	...	...	...	...	531
Export-Import Bank	...	...	...	...	97
Other Programmes	...	...	...	...	82
Total ... ..	...	...	...	...	1,381
of which loans	...	...	...	...	957 (69%)

**Public Law 480** came into force in 1954. Under Title I (90% of PL 480 aid to India), US agricultural surpluses are sold against payment in rupees. The major part of these payments are then made available to the Indian Government as loans or grants; the balance is retained by the US for its own uses. Only the former is counted by the US as aid. Under titles II and III, donations of agricultural commodities have been made in special circumstances. PL 480 aid is not included in commitments through the Consortium.

**The Agency for International Development (AID)** was set up by the US government in 1961 and absorbed the Development Loan Fund (DLF) and the International Co-operation Agency (ICA).

**Terms.** DLF loans were originally not tied to US goods and services, but since 1959 nearly all US aid has been thus tied. Both DLF and AID assistance has been available on a large scale for 'non-project imports'. DLF loans were all repayable in rupees, including the interest, which varied from  $3\frac{1}{2}\%$  to  $5\frac{3}{4}\%$ . AID loans are repayable in dollars over a period of 40 years, including a 10-year grace period. They carry no interest, although a 0.75% credit fee is charged on outstanding balances.

Assistance under AID is also made available in the form of grants and technical assistance support costs.

Loan terms under PL 480 vary for each agreement. The loans are generally repayable over 40 years (repayment beginning four years after the first disbursement) and in rupees or dollars at India's option: with interest at 3% if repayment is in dollars and at 5% if it is in rupees.

Export-Import Bank loans are all repayable in dollars, interest is charged at commercial rates, and repayment periods are shorter. Some of these loans are made directly to the private sector.

Aid has also been given to India by US non-government sources: a loan of £5m by a consortium of US banks for the purchase of Boeing jets, and grants of £16m and £5m by the Ford and Rockefeller Foundations respectively.

In February 1963, the USA gave to India an AID loan of £86m: the largest single development loan in the history of American foreign aid. It is to finance general commodity imports from the USA.

## BRITAIN

### **Committed through Consortium for first three years of Plan: £125m**

Britain has made a little less than a tenth of all commitments to India since 1945.

### **Assistance 1945-63**

			<i>Committed</i>	<i>Disbursed at</i>
			<i>£m</i>	<i>April 1963</i>
			<i>£m</i>	<i>£m</i>
Grants	...	...	3	3
Loans	...	...	205	119
Total	...	...	208	122



**Grants** have been made through the Commonwealth Grants and Loans Vote, partly for the compensation of Indian Civil Servants, but mainly under the Technical Co-operation Scheme of the Colombo Plan, for the supply of books and equipment, experts, and training facilities.

**Loans** to India were not made until 1958. They have been made available under Section 3 of the Export Guarantees Act, and are thus formally tied to the purchase of British goods and services. Most of them are not, however, tied to specific projects in India; exceptions are the loans for the Durgapur steel plant, the Naharkatiya Pipe-line and the Bhopal heavy electrical plant.

The loans are generally for periods of 20 to 25 years, with grace periods of up to seven years. Interest is set at the Treasury rate on a loan for a comparable period from the Consolidated Fund, plus a 0.25% management charge, and is thus generally about 5½%; but in August 1963 an agreement for a general purposes loan of £10m was signed under which the interest due in the first seven years of the loan will be waived: this will in effect reduce the rate of interest over the whole period of the loan to less than 3%.

## USSR

The USSR has made a little more than a tenth of all commitments to India since 1945.

### Assistance 1955-1962

				<i>Committed</i>	<i>Disbursed at</i>
				<i>£m</i>	<i>October 1961</i>
				<i>£m</i>	<i>£m</i>
Loans	...	...	...	287	62
Grants	...	...	...	1	1
Total	...	...	...	288	63

The USSR first provided assistance to India in 1955.

**Grants** consist of materials and equipment supplied for the mechanised farm at Suratgarh and the Indian Institute of Technology at Bombay. In addition a few Indians have had short training-courses in the Soviet Union.

**Loans** are in the form of credits to finance imports of equipment, materials, etc., from the Soviet Union. Interest is at 2½%; both the payment of interest and repayments of principal (generally over a period of 12 years) are made through the export of Indian commodities to the USSR.

## **FEDERAL REPUBLIC OF GERMANY**

**Committed through Consortium for Plan: £188m**

### **Assistance 1958-62**

*Committed up to 1963/64*

*Allocated at July 1962*

£m  
293

£m  
159

Germany has provided assistance since 1958, mainly in the form of loans. Her commitment for the Third Plan is the second largest national commitment among Consortium members. Apart from the loans for the Rourkela Steel Plant, all the loans have been completely untied: they are given directly as cash loans and India can use them in any way she likes.

The early loans carried interest rates from  $5\frac{1}{2}\%$  to  $6\frac{1}{2}\%$ , with periods of from 13 to 20 years including grace periods of from three to six years. Recently interest has been charged at 3% only. In addition technical assistance has been provided at a cost of more than £2m.

## **JAPAN**

**Committed through Consortium for first three years  
of Plan: £61m**

Japanese loans are tied both to Japanese goods and services and to Indian projects and imports agreed between the two governments. Repayment periods range from 15 years to five years; interest rates are either at 6% or at the normal rate charged by the World Bank (about  $5\frac{1}{2}\%$ ). Some technical assistance and training facilities have also been provided.

## **CANADA**

**Committed through Consortium for first three years  
of Plan: £33m**

Apart from a £12m wheat loan in the period 1957-59, all Canadian aid authorised up to June 1961 and nearly two-thirds of her Consortium commitments have been in the form of grants.

The Consortium loans are to be tied to the purchase of Canadian goods and services. Their terms will be negotiated for each transaction, but it is understood that repayment periods will range from 15 to 20 years, with interest at the normal commercial rate plus a management fee.

## **FRANCE**

**Committed through Consortium for first three years  
of Plan: £29m**

France joined the Consortium in May 1961. Before this, she had

extended a credit for financing the import of capital goods from France to the value of £35m. French assistance under the Consortium is in the form of loans, tied at both ends. Repayment periods are of 10 years, and interest is at 5%.

Assistance has been provided also in the loan of experts and the training of Indians in France.

## **ITALY**

### **Committed through Consortium for second two years of Plan: £35m**

Italy joined the Consortium in 1962. Before this, in August 1961, the oil company, ENI, had agreed to extend a credit of up to £34m at an interest rate of 6% to meet the foreign exchange cost of petroleum industry projects. The agreement stipulates that 5% of the cost of goods and services supplied will be payable when each contract is signed, 3% one year later and the balance, after one further year, in 20 equal half-yearly instalments.

It is understood that the greater part of Italy's loan commitment through the Consortium will be devoted to the petroleum and petrochemical industries, with repayment periods of 11 years from the signature of each contract and interest at 6%.

## **NETHERLANDS**

### **Committed through Consortium for second two years of Plan: £8m**

The Netherlands joined the Consortium in 1962. It is reported that more than half of the Netherlands' loan is to be completely untied, with repayment periods of up to 20 years. The remainder will have repayment periods of 10 years from delivery of goods.

Technical assistance has been provided in land reclamation and meat and hide processing.

## **BELGIUM**

### **Committed through Consortium for second two years of Plan: £7m**

Belgium joined the Consortium in 1962. The repayment period of her consortium loan is likely to be 10 years from delivery.

## **AUSTRIA**

### **Committed through Consortium for second two years of Plan: £5m**

Austria joined the Consortium in 1962. Her loan will probably bear interest at  $6\frac{1}{2}\%$ , with repayment periods of 10/12 years from delivery of goods.

**OTHER COUNTRIES.** In addition, nearly £75m has been provided by Australia, New Zealand, Czechoslovakia, Yugoslavia, Poland, Rumania, Norway and Switzerland.

### **IBRD AND IDA**

#### **Committed through Consortium for first three years of Plan: £247m**

The IBRD and IDA have made about a fifth of all commitments to India since 1945. World Bank and IDA loans are not tied as to source of procurement, but they are closely tied to projects in India, such as steel, power, transport, communications and irrigation.

**The World Bank** has made loans to India since 1949, and before the Consortium commitments for the Third Plan these had totalled £280m, of which £189m went to the public sector and £91m went to the private sector.

**Terms.** Repayment periods range from seven years to 25 years, with grace periods of from three to six years; interest is from  $3\frac{1}{2}\%$  to  $5\frac{3}{4}\%$ .

**IDA.** The International Development Association was established as an affiliate of the World Bank in September 1960, to provide interest-free loans for developing countries.

Up to September 1962, IDA had extended loans worth £76m.

**Terms.** Repayment periods may be as long as 50 years, with grace-periods of up to 10 years. A service charge of 0.75% is charged on drawn and outstanding amounts.

**OTHER UNITED NATIONS.** Besides the Capital assistance which India receives from the World Bank and IDA, India receives technical assistance from the UN through EPTA (£7m, 1950-62), the Special Fund (£5m, 1958-62), and UNICEF (nearly £12m, 1950-62), plus additional small amounts from the regular budgets of a few of the specialised agencies (WHO, UNESCO, BTAO). Note: India also makes substantial contributions to these organisations.

*The help of the Federation of British Industries in preparing this material is gratefully acknowledged.*

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