Overseas
Development
Institute

Industry, Employment and the Developing World

The contribution of private foreign business to the employment objectives of developing countries

The Seminar held at Oxford from November 20 to 22 1974 brought together representatives of government, business, trade unions and the universities to discuss the contribution which foreign business – and in particular British business – can make to the employment objectives of developing countries.

It is no longer taken for granted that foreign investment is 'good' for developing countries. At the same time, they still have a great need for capital, technology, and skills. Rich countries are better endowed with all three. But can they – and especially their commercial enterprises – supply these resources on terms which are acceptable, and in forms which are appropriate to the circumstances of developing countries? One particular area where foreign business should be able to help is in the creation of jobs and the enhancement of skills – one of the means whereby the poorest groups in developing countries, McNamara's '40 per cent', can improve their share of the fruits of economic progress. It has become increasingly clear that, in many cases, these groups have not been benefitting from the significant economic growth rates recorded by developing countries.

The Seminar traced the coincidences and conflicts of interest in this area between developing country governments and private foreign firms, and the intermediary role which international and national aid agencies can play. *Industry, Employment and the Developing World* contains a summary of the Seminar's findings, the background papers revised in the light of the discussions, and the reports of the four study groups on specific problem areas.

Price £1.50

Industry, Employment and the Developing World

The contribution of private foreign business to the employment objectives of developing countries

The report of the Seminar jointly sponsored by IBM (United Kingdom) and ODI, in Oxford, November 20-22 1974

Overseas Development Institute Ltd
London

Contents

Contents (continued)

Report of the Seminar

Edith Hodgkinson
Overseas Development Institute

In November 1974 a Seminar was held at Oxford, jointly sponsored by IBM United Kingdom and the Overseas Development Institute, to examine the contribution which foreign private business—and in particular British private business—can make to the employment objectives of developing countries. This introductory report traces the general issues under examination, drawing on the four papers which were presented at the Seminar, the reports of the four discussion groups, and the off-the-record discussions in plenary session. The papers, revised in the light of the discussion, and the group reports follow.

Introduction

The equity and employment objectives

It is only in recent years that job creation has become a major specific objective of developing country government policy. Traditionally, both government and development economists saw growth in aggregate output as the prime economic objective: the poor, the underemployed and the unemployed would automatically benefit because the larger the cake the greater their piece. Expansion in the economy – and particularly in the industrial sector – would be accompanied by an increase in employment opportunities.[1] On this assumption the higher the rate of growth, the more the poor would benefit. Measures of income redistribution – which would increase the share of the poor – could await the attainment of a higher GNP.

However there is now clear evidence that a high rate of growth is often accompanied by an increase in inequality. Despite substantial investment in industry, employment has frequently grown less rapidly than population, while the hope of better-paid jobs in growth areas – the towns – has drawn people from underemployment, in the rural areas, to open unemployment, in the urban areas. Development economists consequently now stress that an increase in equity must accompany aggregate growth,[2] and one of the most obvious means of achieving this is the creation of jobs, which represents a redistribution of income *before* any levelling through taxation. It is, of course,

1 This was an underlying assumption in India's development plans. See Chapter 3, 'Development and Employment: A case study of India.'

2 See, for example, Hollis B. Chenery *et al*, *Redistribution with Growth*, Oxford University Press, 1974, and the ILO reports: *Towards full employment: a programme for Colombia, prepared by an inter-agency team organised by the ILO*, Geneva, 1970; *Matching employment opportunities and expectations: a programme of action for Ceylon*, Geneva, 1971; *Employment, income and equality: a strategy for increasing productive employment in Kenya*, Geneva, 1972; *Employment and income policies for Iran*, Geneva, 1973; *Sharing in development: a programme of employment, equity and growth for the Philippines*. Geneva, 1974.

easy for development economists based in rich countries to argue for equity as a prime objective to be pursued by poor countries. But developing country governments have also shown concern on this issue – not simply out of an abstract notion of equity, but from a wish to correct the serious imbalances which have arisen and which pose a threat to their political stability.

These imbalances in the labour market are identified by Richard Jolly[1] as: intense frustration among job seekers unable to find work of the type and remuneration they want and expect; inadequate incomes from work; and underutilisation of labour. Clearly they cannot be corrected merely by cutting down unemployment, although unemployment is their most extreme manifestation. Nor do all forms of job creation help: an increase in high productivity jobs in 'modern' industry can, in certain circumstances, destroy other forms of employment faster than new ones are created. A solution which also achieves greater equity thus involves the creation of productive jobs which utilise labour fully and provide an adequate income, with a net positive effect on total employment.

The governmental framework

Given that many developing country governments have recognised the need specifically to tackle the employment problem – at least in its first stage, the creation of jobs – what are the strategies they can pursue?

First of all, they can ensure that factor prices are correct – that the prices of labour and capital reflect real scarcities, and that labour is not overpriced through inappropriate wage legislation, restrictions on firing etc, and capital underpriced through credit subsidisation or interest rate ceilings. An over-valued exchange rate will discourage export manufacturing which is often labour-intensive and which (except in enclave activities) raises the level of employment indirectly, through increasing the effective demand for local goods and services. If tariffs on imported intermediate and capital goods are low, producers will find it more profitable to substitute imported machinery and inputs for domestic labour and supplies. So long as such distortions remain, it will be difficult – if not impossible – to develop labour-intensive activities.

Of course capital and labour are not the only factors, and capital is not necessarily the scarcest factor, especially in countries which are rich in marketable resources or have access to large amounts of concessionary foreign funds. There are the problems of scarcity of skilled management, and of ignorance – or at least inadequate information – of technologies which make best use of the resources available (the two problems are not unrelated). The developing country government can act, in this admittedly very difficult area, by establishing technological research institutes and helping domestic entrepreneurs to raise their management skills through training and technical assistance programmes.

---

1 Chapter 1 'The Problem of Job Creation'.

As part of its overall management of the economy, the government can subsidise labour directly or stimulate the consumption of labour-intensive products (for example thorugh price subsidies) by both public and private sectors.

Finally the developing country government has the option of a total reform of the politico-economic system – a radical redistribution of power (in the form of assets and income) to those groups for whom the maintenance and expansion of employment is a prime objective.

Whether or not a government adopts any of these strategies and if so how energetically depends on the weight it gives to the employment objective as against its other policy aims. The most fundamental of the latter is the government's, or system's, continuation in power: a regime will not normally implement policies which destroy it. Yet in some countries a policy giving satisfying, adequately-paid jobs to large numbers of poor unemployed or under-employed, would require the third strategy – ie a social and political revolution. In other countries governments may well have objectives morally more appealing than self-preservation in conflict with the employment aim; for example, when capital-intensive processes are more efficient in the use of productive resources as a whole, or a policy of self-reliance is being pursued. And in any event the redistribution of income, which is an essential aspect of the policy, might still – in a few cases – more easily be achieved through maximising aggregate growth and spreading the benefits through taxation and the provision of welfare services.

The focus of the Seminar

The role of private foreign business

In tackling the employment problem, with whatever degree of priority, developing country governments dispose of a range of resources as well as of policy instruments. The Seminar examined one specific resource – the supply of capital, technology and skills which foreign private business can contribute. In some countries this resource is, quantitatively, of minor significance: in all it has a high qualitative potential.

The term 'business' was used in place of 'investment' since consideration was also taken of the technologies and skills which the foreign sector can provide outside a capital arrangement. The three are often part of one package, but the distinction is useful, and necessary since firms are often prepared to be flexible in their offer, ranging from equity participation to the sale of services, while governments are often reluctant for political reasons to take all three, and their scarcities vary. The discussion group on the location of activity classified foreign private *investment* in manufacturing and resource-based sectors as follows: that related to primary industry and the first-stage processing of raw materials and foodstuffs, for both domestic and export markets; that geared to the local market – mainly import-substituting; that

geared to manufacturing for export. Whether or not these sectors are labour-intensive will depend, primarily, on the product – on whether local, unskilled or semi-skilled labour is efficiently substituted for other factors in the production process. Such substitution frequently requires a radical adaptation of technology. Whether or not a foreign firm in a specific sector is more or less labour-intensive (directly or indirectly) than a local firm will depend both on the relative prices of its inputs (costs of labour are frequently higher, capital lower, than for local, often smaller-scale operations) and on the responsiveness of its management and production set-up to local factor endowments. The Indian case study revealed numerous examples of rich-country products and their associated technologies being transplanted to inappropriate conditions. On the other hand the Seminar discussions brought out the point that foreign firms are by no means always more capital-intensive than local ones.

The paper by William Bell[1] concentrated on the processes of transfer of skills from foreign sources through technical education, industrial training, management development. The transfer can take place in the 'donor' or the recipient country – and is normally more effective in the latter. The discussion group dealing with the transfer of management skills and expertise developed a four-fold classification of means of transfer by foreign private business: management development in an overseas subsidiary as part of a standard executive development programme; the replacement of expatriate by indigenous management; management agency operations (on the Bookers/Mumias line[2]); management services operations (ie running facilities to train management). Raising the level of local skills in these ways should improve labour utilisation rates and earning capacity and also increase job opportunities for unskilled labour, by adding to managerial and technical expertise in the economy as a whole.

Given that foreign private business has these resources, what are the considerations which induce foreign firms to engage in unskilled labour-intensive activities in developing countries, *assuming that the government-determined framework is favourable?* There is, of course, the basic factor of a rate of return on the resources employed which is higher and/or more secure than that offered by alternatives. The plentiful supplies of cheap, unskilled labour which most developing countries possess should lead manufacturing companies selling high labour-input goods on the international market to locate some or all of the processing stage there. This is exemplified in the well known cases of textiles and electronics in Taiwan, Hong Kong and South Korea. This type of investment also has the significant advantage, from the company's view, that it is less vulnerable to changes in government policies, since firms can re-locate with relatively little difficulty to other areas of low-cost labour.

Another significant consideration is that derived from the need to maintain profitability on existing resources – ie the conservation of the local market

1 Chapter 4 'The Transfer of Skills'.

2 Chapter 2 'The Mumias Sugar Company: A case study of a development in Kenya'.

when the government is implementing an import substitution programme. This was the major stimulus to foreign private investment in India.[1] In general, however, this sector may tend to be less labour-intensive (although it may be more skill-intensive) than export manufacturing, since it frequently represents a transplant of processes and products developed in countries where labour is the scarce resource. Private foreign investment directed to this area is thus unlikely to reinforce policies of increasing labour intensity.

The factor of long-run profitability also relates to the transfer of skills. Foreign firms are, in general, anxious to improve the level of skills among their local employees because they tend to be less expensive than expatriates and, in many countries, an effective localisation programme is some form of guarantee of the investment. In addition, and not necessarily as part of an intra-company transfer, foreign firms may sell a package of management and technical services to local interests, at prices prevailing internationally. This is the formula followed by Bookers in the Mumias sugar project in Kenya.[2] In general it is not company policy to invest capital in a scheme entirely directed to serving a domestic market, where conditions are set by the local government rather than by market forces; in this instance, however, it was the wish of the Kenyan government that Bookers participate in ownership.

Another longer-run, and more general, consideration in some cases is that technical staff trained on the firm's equipment are likely to be customers of that hardware, or the associated software, in the future. The case was quoted at the Seminar of the CBI's scholarship scheme under which around 200 engineers at any time receive training with British firms in the UK: this programme is clearly thought to be in the interest of British industry.

There is one other significant, and indigenous (ie home-based) influence on companies directing their resources to labour-intensive activities in developing countries – the policies of home governments. The final session at the Seminar brought out clearly the currently unfavourable conditions in the UK for capital investment overseas. The reduction in the payback period on investment capital in 1968 – from 2-3 years to eighteen months – compelled more firms to raise funds overseas, either by borrowing or by using the earnings on existing investment there. In this situation the attractions of a management package, involving no, or minimal, capital investment (as in the case of Mumias) are clear. Payments stability is, of course, only one objective of government, developed or developing. Another very significant aim – and especially at a time of general economic recession – is to maintain the level of domestic employment. The export of capital may well mean the export of jobs. The discussion group which dealt with this issue argued that considerations of long-run efficiency and competitiveness in international trade *should*, in any event, induce rich countries to transfer their resources out of sectors in which they do not have a comparative advantage – eg labour-intensive processes.

---

1 Chapter 3.

2 Chapter 2.

But in the short term the change may have painful political and social repercussions, and there may well be pressure on companies, from the labour side, against actions which involve the loss of jobs directly (through the transfer of a production process, wholly or in part) or indirectly (through competition from goods entering the market as lower-cost imports). Such pressures are already evident in the USA, and are likely to become more so in the UK if world demand slackens. The discussion group dealing with this area stressed the need for better-designed and more comprehensive programmes of adjustment assistance in the 'donor' countries.

The significant constraints

The necessary conditions for foreign private business to contribute to the solution of the employment problems of developing countries are thus a framework of policies and priorities appropriate to labour-intensive development on the part of the developing country government, the prospect of a satisfactory, and secure, rate of return on foreign resources employed in labour-intensive activities, and a favourable attitude – to the transfer of resources for this purpose – on the part of the developed country 'donor' government. There are, of course, significant gradations in 'appropriate', 'satisfactory' and 'favourable' and insufficiencies in these areas represent the major constraints on the effective use of the resources of foreign private business to further the employment objective. The Seminar looked at these aspects, but also at constraints in the nature or supply of the resources available.

The area of developing country government's political will and selection of priorities was not specifically analysed in the Seminar, but the Mumias sugar project case study[1] did reveal a specific example of the superseding of the employment objective. The Kenya government wanted national self-sufficiency in sugar and therefore the Mumias factory was designed to achieve an efficient conversion of cane into sugar. The use of a simpler technology could have resulted in a higher labour-to-capital ratio but at the cost of reduced sugar output. The Indian case study illustrated the incompatability of the employment objective with others such as industrial development, the acquisition of modern technology and a high rate of overall economic growth.

Other constraints on development of the most labour-intensive sectors were identified and examined. The most familiar one, which formed the subject for a discussion group, was the inappropriateness of the technology embodied in much foreign investment – a technology which reflected the factor endowments of the investing country, rather than of the receiving country. The Seminar recognised that there were major obstacles to designing, or finding, and implementing production techniques more appropriate to a labour-surplus environment. It is not in the interest of a private company to develop a process which can be easily replicated, and thus to lose the benefits of its research and development costs: the more sophisticated the process,

1 Chapter 2.

the higher the monopoly rent it can extract. Yet processes which are labour-intensive tend to be easily replicable. Local firms in the developing countries are also unlikely to undertake research and development of alternative technologies when – as in India – they are serving a highly protected domestic market, and deriving their profits from existing technologies: spending on indigenous research and development could merely reduce their profitability.

One assumption in this argument is that labour-intensive technologies are the most appropriate to the factor endowments of developing countries. But, as indicated earlier, capital and labour are not the only factors. The Seminar brought out very clearly that the factor which is often in scarcest supply, internationally but most critically in developing countries, is management expertise, and it is scarcity of this resource which is possibly the most serious constraint on labour-intensive development. Large international firms, with a well-developed recruitment and promotion structure, are better placed to recruit skilled managers at a lower cost and of a higher quality than are developing countries on their own, but at the Seminar the Chairman of Bookers Sugar stressed that for his company too it is management – not capital, labour, or knowhow – which is in scarcest supply. And labour-intensive schemes – especially those which involve the bringing into regular and systematic employment of groups not used to the discipline of industrial processes – are management-intensive. Machines require fewer managers, with less experience. The Seminar discussions on the Indian experience[1] brought out clearly that one of the major reasons for the failure of projects specifically designed to create jobs was poor management.

The Seminar's proposals

The Seminar did not come up with proposals aiming to change the political will of developing country governments. But it did suggest some specific initiatives for rich country governments, to ease the path of those developing countries which are pursuing the objectives of job-creation and skill enhancement in a serious manner.

The discussion group on technology proposed, among other measures, the setting up of international technology data banks which would meet the primary need for fuller information on the range of technologies available. Developing countries might regard such banks as an appropriate use for multilateral aid funds and they would also carry out a role which cannot properly be expected of private business – ie the diffusion and popularisation of information, the monopoly possession of which is a marketable good. International and national aid agencies could perform another commercially unattractive task – finance pilot factories in developing countries to test the viability of technologies – and the former could also monitor the activities of foreign companies in developing countries.

On the other major constraint – the availability of management skills –

1 Chapter 3.

the Seminar did not produce a new proposal, rather a confirmation of the need to maintain and expand the type of skill transfer administered, in the UK, by TETOC (the Council for Technical Education and Training for Overseas Countries).

Rich country governments and official agencies are here acting as intermediaries. The Seminar also suggested actions which the two parties – developing country governments and foreign companies – might pursue. The former should try to co-ordinate their foreign investment codes, seek advice from consultants who are independent of equipment supply interests, and be prepared to allow more design time if projects are to include labour-intensive innovations. Companies should explore ways of incorporating inputs from the local informal sector in their production and local marketing and distribution processes.

Conclusion

The ILO report on the Philippines[1] refers to the 'trinity of current societal objectives – more employment, more equity, and more growth'. The definition of the employment objective, used throughout the Seminar, can be said to have brought the three into one – since it looks to a growth of incomes more equitably distributed by the creation of more, better-paid and higher-productivity jobs. The Seminar did not locate an easy means of achieving the objective: it can be said to have pointed up the difficulties more clearly than the solutions. But it served a useful purpose in highlighting areas where the differing objectives of two parties – the developing country government and foreign private business – can be reconciled in a way conducive to the overall employment objective. At a time when the international economic order is under serious strain, when higher energy costs have cut growth rates in the industrialised countries and made them less willing to buy from, and supply capital and skills to, developing countries and when many developing countries face a decline in already low living standards, the need to keep open and develop the channels of resource transfer is all the more urgent.

1 *Sharing in development in the Philippines, op. cit.*

Chapter 1 The Problem of Job Creation

Richard Jolly
Director, Institute of Development Studies, Sussex

Behind the consensus of concern with employment problems in the Third World exist differing definitions of the problems, different diagnoses of the causes and sharply differing remedies about what to do. The intense debates of recent years have not so much resolved these issues as shifted the focus. Attention has moved from problems of job creation in a strict sense to a more general set of problems, still visible in the numbers of angry or disillusioned school-leavers frustrated in their search for work but revealed more fundamentally in the persistence of chronic poverty co-existing with extremes of high consumption and unequal income distribution. This is the position in many developing countries to a degree well beyond the position in most developed countries.[1]

Until a year ago, all this took place in a context of world economic growth in which many countries – though not the poorest – had for a decade been expanding production significantly faster than had seemed possible ten years earlier. But now world prospects have sharply changed – and the chances of relieving persistent poverty and providing productive employment for all are made yet slimmer by world recession. Many countries are being hit by a disastrous combination of declining export prices and volumes and high import prices for food grains, oil and oil-based products like fertilisers. The nature of the world's social contract is, in the sobering words of McNamara, that 800 millions of the poorest people in the world cannot now count on any increase in their living standards until 1980. It need hardly be said that this is not a standstill in living standards for those who are already affluent, but a prognosis of at least another seven lean years for those already hungry – or at least for those of them who manage to survive.

These points are introduced at the very beginning not for emotion but for analysis. Unless the problem of job creation in the poorer countries is unambiguously set in the context of eradicating world poverty and the structures which lead to it, the priorities will be wrong and the remedies may be counter-productive.

The need to consider employment problems in the broader context is equally indicated by the unsatisfactory experience of many programmes of job creation which even when they have relieved unemployment have often done little to diminish poverty. The unemployed are often not the poorest, since the very poor literally cannot afford to be without work. The poverty of the

1 An excellent survey of the nature and dimensions of the Third World employment problems will be found in D. Turnham, *The Employment Problem in Less Developed Countries: a review of evidence*, OECD, Paris, 1971. For a brief set of readings on these issues see Richard Jolly *et al, Third World Employment: problems and policies*, Penguin, London, 1973.

very poor often co-exists with long working hours but very low incomes. They are the working poor, working small plots or at very low wages in the rural sector and in a variety of formal and informal occupations in the urban areas or on the fringe. Others in poverty may be suffering hunger and malnutrition and be too weak to work.

In contrast, the unemployed and others seeking work often comprise a wide mixture of persons, from the indigent to the affluent, from women discriminated against to college graduates with high and unrealistic expectations. The variety of human conditions may be illustrated from some examples designed to show the inadequacy of stereotyped perceptions of unemployment – and the need for a broader approach.[1]

(a) Farmer, aged 30, married, has children, one acre irrigated land: works 70 hours a week on it for 4 weeks a year, less than 20 hours a week for most of year. Gets 40 days casual labour a year from farmer neighbour who has 5 acres; spends 30 days a year taking produce to market. Gets enough to keep family fed and clothed, wants a bicycle but can't buy it. Doesn't envisage any alternative way of life.

(b) Son of same farmer ten years later. Age 18. Helps father on the same one acre, working 50 hours a week on it for 4 weeks a year, less than 10 hours a week for rest of the year. Works for 120 days a year with road construction gang. Would work 160 days if the work were available because he wants some savings to get married, but family income adequate to feed and clothe him. Expects to inherit the land from his father, so is not looking for another job.

(c) His younger brother, three years later. Finishes secondary school at 18 and receives a certificate. Provided with adequate food and clothing at home. Spends most of his time writing letters applying for jobs in the town. Occasionally goes to town looking for work, staying a month at a time with relatives. Helps on family fields, or taking crops to market when asked – about 30 days a year.

(d) His classmate, also secondary graduate. After two months in city trying to get a job gave up, returned home, started correspondence course in accountancy, now spends 50 hours a week studying for accountancy certificate, but still applies occasionally for teaching jobs. Supported by parents, but feels short of pocket money.

(e) Young man, aged 24, graduated as engineer one year ago. Applies for approximately one job a week, but without success. Not unhappy since parents are wealthy and he spends several amiable days a week taking his girl friend to the beach in his sports car.

(f) Farmer aged 30. Wife seriously ill for six months; had to sell all land

1 These examples were prepared by Professor R P Dore of the Institute of Development Studies.

to pay for medicine. Works on casual daily basis for local farmers and in road construction. Asks for work every day, but gets it only 160 days a year. Both he and wife hungry.

(g) Another farmer, similar circumstances as the above except that his wife works as regular domestic servant for richer farmer. They are never hungry, can buy clothes and do not consider themselves 'poor'.

This variety of examples makes clear that any serious discussion of the problems of Third World employment must begin with a clear definition of the problems and must continually relate diagnosis and cures to the particular problems identified. Unemployment must be distinguished from job seeking and underutilisation of labour – and those conditions must be distinguished from poverty. There is often of course a great deal of overlap between all three situations and on many occasions the very poor may be unemployed, seeking work and under-utilised. But though they often exist together, often they do not – and it is therefore important to be specific about what sort of employment problem one is discussing. Obvious as this may seem, the failure to do this is a major reason for the confusion and differences which underlie many of the arguments on the subject.

This paper therefore begins with a brief section defining the nature of the employment problem – or problems – to be tackled and outlining in the broadest of terms their causes. The second part of the paper takes up two aspects of policy likely to be involved in removing or ameliorating the inequality underlying them: the central priority of domestic strategy, redistribution with growth; and the external elements of economic strategy, particularly the role of private foreign investment. In order to make the discussion specific the main points are illustrated from the three ILO employment missions with which the writer has been associated, dealing with employment problems in Colombia (1970), Sri Lanka (1971) and Kenya (1972).[1]

The nature of the employment problem

Let me begin by stating five basic propositions about the nature of unemployment problems in most Third World countries.

1. There is not one employment problem but many.
2. Among these problems, three main ones can be distinguished:
   (a) intense frustration among job seekers (especially but not only among the educated) unable to find work of the type and remuneration which they want and expect;
   (b) low incomes (in money or kind) from work which are inadequate in terms of the basic needs of individuals and the other members of their households:

---

1 *Towards full employment*, ILO, Geneva, 1970; *Matching employment opportunities and expectations*, ILO, Geneva, 1971; and *Employment, incomes and equality*, ILO, Geneva, 1972.

Table 1 — Percentage of the urban labour force affected by employment problems (a) open unemployment; (b) disguised unemployment; (c) inadequate incomes

			Males	Females	Total
Colombia 8 towns 1967	(a)	unemployed, actively seeking work	12	19	14
	(b)	disguised unemployed not actively seeking but would seek if work available	10	(?)	(7+)
	(c)	inadequate incomes (less than minimum wage)	28	44	33
Sri Lanka urban areas 1969/70	(a)	unemployed, actively seeking work	16	33	19
	(c)	inadequate incomes (less than minimum wage)	..	..	21
Kenya Nairobi 1970	(a)	job seekers, total	16	30	17
	(b)	job seekers, with zero incomes from work	8	21	12
	(c)	working poor (all with incomes less than minimum wage)	20	50	(29)

() indicates incomplete total

Source: ILO Employment Mission Reports : Colombia, *Towards full employment,* p.21; Sri Lanka, *Matching employment opportunities and expectations* pp. 22 and 26; Kenya, *Employment, incomes and equality,* pp. 58 and 63.

(c) underutilisation of labour resources in the sense of people involuntarily producing less than they are capable of with the resources already available.

3. For any adequate solution in most countries all three problems need to be tackled, the first two as ends in themselves, the third as a means to higher production and other goals, especially the generation of higher incomes for those in poverty.
4. For those concerned with human need, the second problem and its relationship to persistent poverty deserve highest priority in formulating effective policies.
5. In most countries of Asia and Africa, rural poverty far outweighs urban poverty in terms of the number of persons affected, and probably also in Asia in the depths of human deprivation and suffering.

This approach to the employment problem was adopted in the three ILO employment mission reports mentioned earlier. In each, data on employment

and poverty were only available for the main urban areas – and even then their quality left much to be desired. But the broad dimensions, summarised in Table 1, show that the problem of poverty in Colombia, Sri Lanka and Kenya exceeded the problem of open unemployment, however defined.

The ILO Kenya mission showed the need to make a further distinction – to separate among the job seekers those who were strictly unemployed from those who were not. In Nairobi in 1970, for example, 16% of males in the labour force were recorded by one survey as job seekers, and 30% of females. But of these, about half the males and about a third of the females were in receipt of some income from work. They may have been poor and they were certainly on the look-out for a better job. But they were not unemployed in a strict sense.

Table 2 – Proportion of unemployed persons and of the working poor in the adult population of Nairobi by sex and household status in 1970 (percentages)

	Male household heads	Other males	Female household heads	Other females
Unemployed	5	10	11	23
Working poor	14	14	41	32
Total	19	24	52	55

Source: *Employment, incomes and equality*, p.64.

At the same time, as Table 2 makes clear, the unemployed comprised only part of those in urban poverty, defined as those members of the labour force receiving less than the legal minimum wage. The working poor – those employed sometimes for long hours but still receiving less than the minimum wage – were in any sub-category more numerous than the strictly unemployed: nearly a fifth of household heads, nearly a quarter of other males and one half of all females.

Although it was not possible to quantify the dimensions of rural poverty and unemployment the dominance of the rural sector can be adequately judged from the distribution of population. In Kenya, about nine-tenths of the population live in the rural areas, about three quarters in Sri Lanka and in Colombia about half.

The causes of the problems

It should already be clear why we feel there is not *one* cause of these employment problems, but many – too many for adequate treatment in a paper of this length. The sets of causes can however be conveniently divided into two

– those concerned with the *overall* imbalance between the total numbers of persons wanting work and the total number of work opportunities (measured for example, in numbers of man-years of labour required) – and those concerned with *structural* imbalance between the skills, education, experience and aspirations possessed by the labour force and the occupational and other characteristics needed for manning the whole economy. The two types of imbalance are not, of course, mutually exclusive.

The *overall imbalance* if often explained in terms of basic disparities in growth rates of the supply and demand for labour. According to this explanation, the supply of labour will be given by the growth of population *or* the urban labour force *or* the educated labour force, which respectively may be growing at rates of perhaps 2 to 3%, 4 to 8%, 5 to 15%. At the same time, it is argued, the demand for labour, as measured by the past growth in wage-earning employment, is increasing by the growth rate of output minus the growth in labour productivity. Judging from past trends, output growth is typically growing in many countries at perhaps 3 to 6%, labour productivity at not much less, leading to a growth of employment usually of 1 to 2%, if that. A gap between labour force supply and demand thus emerges, it is argued. The projection of a gap using some such methodology underlies many of the analyses of the growth of unemployment in the future.

There are, in my view, important elements of truth within this analysis which are essential elements in our understanding of the problem. But the framework within which they are combined in the above interpretation is much too simple, even misleading. Providing the growth rate of labour supply exceeds that of labour demand and the two rates are unaffected by disparities between them, a widening gap is certain to emerge. In reality, increasing unemployment is likely to influence the growth of labour supply, of production and productivity – so the growth rates will not be independent of a widening gap. Moreover, the model of economic growth in this explanation is absurdly simple: a closed economy, without differentiation between sectors, and no explanation of changes in productivity.

More serious, this model assumes a single and over-simple definition of employment, unrelated to the variety and subtlety of employment problems discussed earlier. This explanation is really concerned with labour utilisation measured in man-years. There is no distinction between employment of different status, attractiveness, duration or intensity, let alone income levels or poverty. There is an implicit preoccupation with formal sector employment in the sense of wage-earning jobs in the modern sector and little recognition of the characteristics of informal sector employment and rural agricultural work. There is no allowance made for the different employment problems within the labour force – of women, of school leavers, of the young or the aged. Most serious of all, the overall changes in economic growth, productivity, and labour force supply are estimated to be independent of these structural factors.

The missing element is precisely an integrated analysis of the *structural imbalances* in the labour market underlying the different types of employment problem. Diagram 1 summarises an analysis of the structural imbalance between job aspirations and work opportunities, as provided in the ILO employment mission report on employment problems in Sri Lanka. There the crucial elements of structural imbalance were related, on the supply side, to the educational structure of the labour force which created a pattern of job aspirations far in excess of work opportunities available. But in Sri Lanka as elsewhere, the structural causes are far more complicated than this. There are other influences on individual attitudes and aspirations and they are partly a response to the basic facts of the situation – notably to the wide differences in the earnings, security and future prospects of different jobs. Evidence from a number of countries shows that without reductions in the wide differentials between jobs, changes within the educational system, let alone in attitudes, are doomed to failure.[1]

Both the *overall* imbalance and the *structural* imbalance are linked to the pattern of economic production, growth and income distribution. It is for this reason that the employment problem is symptomatic of basic weaknesses in the whole process of development. This point can be illustrated with reference to excessive inequality in income distribution, which all three ILO employment mission reports have directly linked to the problems of employment. There are in effect three major inter-connections:[2]

(i) the more unequal income distribution, the greater the differentials in wages and consumption levels and thus the stronger the desire for the higher-paid, mainly urban jobs and the greater the dissatisfaction with low-paid work. In turn, this encourages migration from the rural to the urban areas, increases the pressure for general secondary and higher education to provide access to senior jobs within the civil service and large-scale manufacturing, and stimulates general claims for increases in salaries and wages. The structural imbalance shown in Diagram 1 becomes more acute.

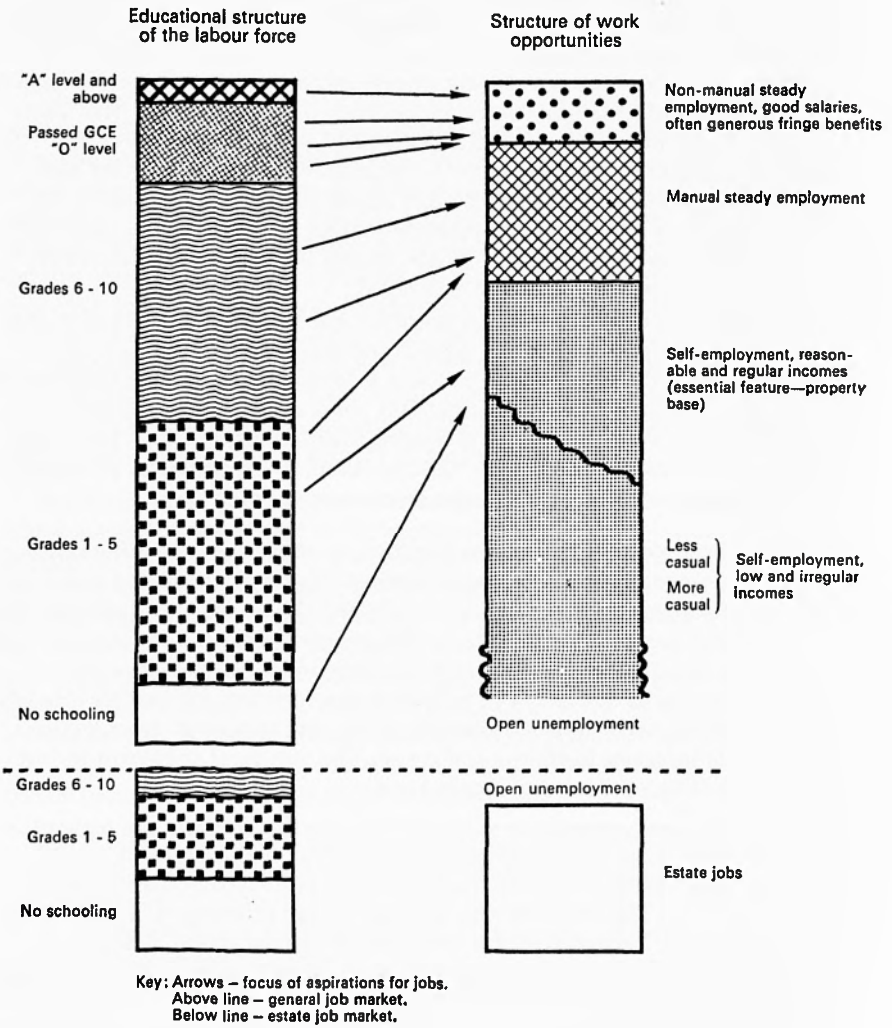
(ii) the more unequal the pattern of income distribution, the higher the level of luxury consumption and, in most countries, the higher the expenditure on luxury imports, visible and invisible (like foreign travel). The very rich may also use foreign exchange to acquire assets abroad. This adds to the foreign exchange constraint which in at least half the developing countries is a major constraint on economic expansion.

(iii) the more unequal the level of income distribution, in many cases the lower the growth of formal sector employment. Here the evidence is

1 For further discussion of these points, see the author's introduction and the readings in Richard Jolly *et al, Third World Employment: problems and policies*, Penguin, London, 1973.

2 See especially, ILO, *Towards full employment* for further discussion on these points.

Diagram I The imbalance in aspirations and opportunities in Sri Lanka, 1968



Source: International Labour Office, *Matching employment opportunities and expectations: a programme of action for Ceylon.* Geneva, 1971.

less straightforward. The essential determinant is whether luxury consumption leads to a more or to a less labour-intensive pattern of production. Higher levels of luxury consumption will discourage demand for food products, which are generally labour-intensive. At the same time, the other forms of luxury consumption which they encourage may or may not be labour-intensive, depending on the type of good and context. Which of these influences dominates depends on the specific situation.

These three relationships are tendencies rather than universal laws. But with respect to policy, the crucial point is that there is no automatic measure of adjustment which operates with respect to either the overall or the structural imbalance. Thus imbalance may persist and may indeed worsen without calling into play any offsetting mechanisms. Measures towards balance must therefore be made an essential element of policy.

Central thrusts of poverty-focussed policy – redistribution with growth

Since the causes are fundamental, it follows that the remedies will also involve major changes in the whole thrust of development strategy. It is not possible briefly to do more than indicate some of the main directions involved. Nor is it possible adequately to discuss these in general terms, without reference to the specific problems and context of an individual country.

Nevertheless, one may identify three general elements for discussion, each reflected in the employment mission reports of Colombia, Sri Lanka and Kenya. These elements are the general strategy of redistribution with growth, the external elements in this strategy and the politics of implementation.

Redistribution with growth as an overall strategy was explicitly outlined in the ILO mission report on Kenya.[1] As proposed in Kenya, it involved four elements:

(i) a commitment to maintain, if possible even to increase, the overall rate of economic growth.

(ii) broadly to stabilise the income levels of the highest group of income receivers, in Kenya the top 10%.

(iii) to channel the resources which otherwise would accrue to this top 10% into investment.

(iv) to invest these resources as far as possible in forms which would benefit primarily the poorest section of the country, in Kenya the bottom 40%, mainly rural but partly urban.

These were the broad dimensions of a strategy designed to double the incomes of the poorest groups in the country in a decade. Naturally it needed

1 See ILO *Employment, incomes and equality*, Chapter 7 and Technical Paper No. 6.

to be translated into specific programmes of action. One immediate proposal was the formulation of more detailed targets of action, related particularly to the target groups of those in poverty and their specific needs. In subsequent work[1], these target groups have been identified as (a) small-scale farmers, (b) rural landless and submarginal farmers, (c) urban underemployed (the working poor) and (d) the urban unemployed. The range of programmes required to improve their incomes is numerous but identifying the groups is a first step to the design of adequate programmes. In Kenya the government has accepted the ILO proposal that national targets be set for the provision of key elements for a minimum standard of living: minimum nutritional standards, and access to clean water at a reasonable distance, to basic education, to basic health facilities, to simple housing, and, of course, the opportunity of productive employment.

The crucial step towards a comprehensive strategy is the adjustment of all sectoral programmes to ensure that they contribute positively to the improvement of living standards for the poorest. In most countries, this means major changes within the agricultural programme, with an effective programme of land reform and distribution as an inescapable component. But always there will be a need also for basic changes in the pattern of transportation, marketing, pricing, extension services and in the terms and conditions for supplying key inputs such as fertilisers and credit. Parallel changes focussed on the needs of the poorest 40% of the population are also required in industry and services, in the whole range of education and health facilities and in the system of government planning and administration which so largely determines which groups benefit and which do not.

The external elements of policy

A crucial question which all three reports had to tackle concerned external policy and, in particular, the extent to which the adoption of a more poverty-focussed strategy to general productive employment within the country would *necessarily* involve a major reorientation towards the world economy. All three reports analysed this question and argued that major changes would be required in policies affecting three main aspects of the economy:

- the generation and use of foreign exchange
- the nature of imported technology and the terms on which it was imported
- the control of private enterprise, particularly that part currently controlled from abroad, to ensure closer harmony with domestic national interests.

The need for generating more foreign exchange and ensuring better use of

1 A volume reporting on joint studies on these themes by the World Bank and the Institute of Development Studies has just been published: Hollis Chenery *et al*, *Redistribution with Growth*, OUP, 1974.

reserves flowed from the need to maintain or increase the rate of economic expansion. Although in all three countries there was unexploited scope for economising in the use of foreign exchange for consumer imports, economies alone would not be sufficient to provide the additional foreign exchange needed for an expansion of productive employment. Thus a major review of the whole set of policies affecting trade, aid, capital inflows and outflows was necessary.

No less important was a fundamental review of technology policy, covering local sources of technological development and application, the terms under which technology was imported and the nature of that technology. These points have been greatly emphasised in traditional analyses of employment problems in low-income countries. The main emphasis has been put on the capital-intensive nature of technologies imported from more developed countries and thus their inadequacy in generating much local employment. In contrast, the employment mission reports directed attention to two other previously neglected dimensions of the impact of imported technology – its effects on the local structure of income distribution, demand and thus of domestic production, and its links with foreign investment and the outflows of capital, enhancing the foreign exchange constraint. The way in which inappropriate technology was linked to the failure to generate productive employment and to improve the living standards of the poorest were seen to be more pervasive and devastating through their other links with the foreign exchange shortage.

All these changes added up to a major reorientation of policy in the area of international trade, both imports and exports, aid, international relations and private foreign investment. No doubt, the implications ought also to have been pressed in other less emphasised areas, particularly that of military strategy and alliances. But the areas for reorientation which were identified were major enough.

Rather than attempt even the briefest summary of the changes required in all these areas, it will be more illuminating to identify the changes in one area alone, towards private foreign investment, and to document the evidence used to argue for the change. Again, to limit the range of examples considered, they are all chosen from the Kenya ILO report.[1]

The Kenya report identified five main respects in which the operations of foreign firms might be a cause of one or other of the employment problems identified earlier. Each was an area in which evidence had to be collected, and was not a foregone conclusion. The five areas were:

1. The tendency of foreign firms to use relatively capital-intensive technologies, and thus to generate relatively little employment in relation to the capital resources they use.
2. The tendency of foreign firms to pay high salaries and even also high wages (relative to other local wage levels) and thus to encourage pressures elsewhere in the economy for raising wage levels, minimum wages and fringe benefits. While clearly beneficial to those who

1 See particularly Chapters 11 and 17 and Technical Papers Nos. 7, 9 and 17.

enjoy the increases, it is often argued the initial increases in the cost of labour have subsequently unfavourable repercussions on the growth of employment.

3. The tendency of foreign firms to act as a channel for the outflow of capital in the form of profits, thus offsetting to a greater or lesser extent the favourable gains in foreign exchange of the initial investment and the import substitution or export earnings subsequently derived from it.
4. The tendency of foreign firms, which concentrate on 'modern sector' production, to generate a pattern of 'inappropriate' consumer demand.
5. The tendency of foreign firms to possess a disproportionate degree of power and influence over local policy making, with unfortunate effects upon the whole pattern of development.

The ILO Kenya mission emphasised the potential importance of all five of these effects and investigated local evidence as to their direction and relative impact. As regards the first two points, the mission somewhat surprisingly discovered from comparison of foreign and locally owned firms *within similar industrial sectors* that the foreign firms were actually about 20 to 30% *less* capital-intensive than the local firms. Equally contrary to common belief was the finding that foreign firms tended to have lower labour costs (and wages) per employee, again by comparison with local firms operating within the same sector. Both results clearly needed further testing but the explanation appeared to be that foreign enterprises found it easier to recruit more skilled supervisory staff which allowed them to use production techniques involving higher proportions of unskilled labour. This appeared to apply to grain milling, bakery products, sugar and confectionery, beer, furniture, paper and paper products and non-electrical machinery. Although these results were true within sectors, taken as a whole foreign enterprise was some 20 to 30% more capital-intensive than local enterprise in manufacturing – because it was concentrated in those sectors in which production techniques were inherently[1] more capital-intensive.

As regards the inflow and outflow of capital, the mission found it impossible to obtain adequate, let alone comprehensive, evidence. From a variety of partial sources, however, the mission formed the view that the net inflow of funds from foreign investment was probably far less than generally believed, largely because of the effects of transfer pricing, particularly the over-invoicing of intermediate imports practised in some import-substituting firms. The Kenya exchange control authorities suggested that this practice was prevalent, though they had only occasionally been able to prove it. A number of foreign companies that were making losses consistently over periods of four or five years were suspected of over-pricing intermediate goods and accumulating profits outside Kenya. The mission was told of

1 'Inherently', at least in the short view. In the long view, one must question whether the range of 'inherently' feasible technologies reflects anything more than the historical pattern (and biases) of technological research and innovation.

companies which priced intermediate goods 20 to 30% above what they would fetch on open markets. The mission estimated that at a very minimum the average level of over-pricing was 5% and probably a good deal higher. Even a level of 5% would have doubled the *real* outflow of profits and dividends.[1]

As regards the influence on consumption, the mission argued that much modern technology brought in from abroad released or encouraged pressures to generate a pattern of consumer demand to match the goods imported or produced rather than *vice versa.* Here again, no comprehensive analysis was possible, though numerous examples of inappropriate products were put forward – cars instead of buses and bicycles, Nairobi-baked bread instead of local bread, plastic sandals instead of locally made motor-tyre shoes, etc.

The definition of inappropriateness obviously raises great difficulties and the risk of being accused of paternalism and of thinking that one knows better than the consumer himself. But clearly the existing market situation was not one of complete *laissez-faire.* Modern sector products were heavily advertised, traditional products were not; modern sector products depended on this high-wage market, traditional products did not. The effects of modern sector products were not only in replacing widespread informal sector employment by a few modern sector jobs, though this was bad enough for poverty and unemployment. In some cases, of which baby food and feeding bottles is perhaps the most publicised and notorious recent example, the introduction of an inappropriate product itself has been directly responsible for a significant reduction of human welfare, in the case of feeding bottles by increasing child mortality.[2]

In the final area – the disproportionate power and influence of foreign firms – the mission argued that this influence had been noticeably growing since independence. One major effect was that foreign firms (and the desire of government to attract them to invest in local production) influenced the whole context of legislation and government administration. The result was that the pattern of tariffs and import substitution legislation seemed to operate more to the advantage of the firms themselves than to the nation as a whole. These problems are, of course, not only ones of Kenya but of all countries, and recent work on multinationals has revealed the range and complexity of the issues involved.

The mission identified three main spheres of influence within the Kenyan economy since independence: the large farmers, the major manufacturing

1 A number of empirical studies on this question have now been made, particularly in relation to import-substituting Latin American economies. See, for instance, United Nations *Multinational Corporations and World Development,* UN, New York, 1973 and C V Vaitsos *Intercountry Income Distribution and Transnational Enterprises,* Clarendon Press. 1974. For a more general overview of international investment studies see J H Dunning *International Investment,* Penguin, London, 1972 and Grant L Reuber *et al, Private Foreign Investment,* OUP, Oxford, 1973.

2 See 'Action Now on Baby Foods', in *The Internationalist,* August 1973, and subsequent issues.

concerns, and the government elite. Before independence these three circles of influence overlapped but were basically distinct. Since independence these circles were more closely linked, often brought together in the interests of key individuals directly and personally involved in all three circles. Before independence these groups were all headed by non-Africans, mostly Europeans. Such coalitions of interest were thus more conspicuous and racially vulnerable to nationalist challenges. Kenyanisation has significantly reduced this risk since independence.

Implementation

Since the mission report, it has been a matter of intense debate whether the challenges presented to this circle of interests are beyond the concessions they would be willing to make. The government has formally accepted the report and published a White Paper indicating in some detail its attitude to the broad analysis and main proposals of the report. The main proposals accepted by the government were also summarised in the 1974-78 Kenya Development Plan.[1] Colin Leys, in a sharp critique of the report[2], argued that there is no reason to suppose that those with power have any interest in implementing the strategy proposed and thus in tackling the employment problems identified. Certainly the challenges are great and one cannot be sanguine about the extent to which the major changes required will be implemented, at least in the short run. But the mission report argued that the cost of inaction was also high, high to the country as a whole but high also in terms of the long-run prospects of those currently enjoying the lion's share of the benefits. The strategy of redistribution from growth indicates the extent to which rapid progress in raising the living standards of the poorest and in eliminating other employment problems was at least technically possible by steady restructuring rather than a sudden disruption of the existing economic pattern.

As outsiders, we are for the most part observers rather than participants in this process. For our purposes, rather than speculate further on the internal response to this change of strategy, it may be more valuable to end by identifying some of the things which foreign companies and donor governments might do in support of these strategies. Some of these options have subsequently been developed further in the IBRD/IDS study, *Redistribution with Growth.*[3]

As regards companies, the major change required is to extend the more favourable developments of the last five or ten years – and to abandon rapidly

1 See Republic of Kenya, *Sessional Paper No. 10 of 1973 on Employment*, Government Printer, Nairobi 1973, and *Development Plan 1974-78, Part I*, Government Printer, Nairobi 1974.

2 Colin Leys, 'Interpreting African Development: Reflections on the ILO Report on Employment, Incomes and Equality in Kenya', *African Affairs*, Vol. 72, No. 289, October 1973, pp 419-429. The argument has subsequently been incorporated in his book *Underdevelopment in Kenya: the political economy of neo-colonialism*, Heinemann, London, 1975.

3 *Op. cit.* Chapter 8.

the unfavourable. It is now widely recognised that companies can often be involved in practices which are highly deleterious to broad-based national development – and the more enlightened firms speak out against them. An explicit recognition of what these practices include and cooperation with governments and international agencies in devising codes of conduct to avoid them represent a major way forward. An acceptance by the more enlightened firms of such a code of conduct and an agreement to open their operations to audit might change the whole climate of opinion – and help to shift the discussion from the ideological to the factual plane.

As regards international agencies and donor governments, the explicit recognition of the widespread extent of poverty and employment problems and of the need for 'aid' operations to give priority to their eradication would be the beginning of major change. This must include frank recognition of (and acquiescence in, if not always active support for) the international repercussions which a country may cause if seriously adopting a poverty-focussed, employment-oriented strategy. Such repercussions may include, for example, increased taxation, the extension of controls and at times nationalisation of foreign-owned assets. Almost always some overseas interests are hit by measures of this sort even if others may benefit. Such changes in policy have now occurred in many countries – and the international community and many donor agencies have increasingly adjusted their policies to take account of them. The more they can be brought into the arena of frank discussion, recognising both the rationale underlying such moves and the conflicts of interest in responding to them, the more measures can be devised to enable the international community to cope with them.

Chapter 2 The Mumias Sugar Company: A case study of a development in Kenya

J. A. Haynes
Director, Booker McConnell Limited

Booker McConnell is a UK-based company with interests in food and agriculture and with considerable experience of operating in many parts of the world, both in purely private enterprise projects and in partnership with governments and international institutions. Bookers Agricultural and Technical Services is a subsidiary company of the Booker Group which provides technical consultancy and management services to agriculture throughout the world. Bookers have a large team of agricultural and engineering experts who are experienced in handling large projects from the initial feasibility studies through pilot schemes to commissioning and operational management. Furthermore, Bookers' Agricultural Division has considerable experience of working at the interface between governments, international financial institutions and private enterprise.

The theme of this Seminar is employment in the developing world and in this context reference is often made to the problem of 'job creation'. However, it must be that the real problem is not how to create jobs, but how to create profitable and fulfilling jobs. A 'job' in this sense is surely participation in an economic activity which creates enough wealth to pay for itself as well as adding something to the wealth of the community, ie an activity which is self-supporting, profitable and which gives the individual a real role in the community.

The greatest problem of job creation is no longer the problem of finding the necessary capital. There are now many sources of international finance that will back sound, well-managed projects. It would appear that the major problems are, first, how to find the projects which will create profitable jobs (this is difficult enough and Booker McConnell was lucky in the particular example discussed in this paper to be presented with the opportunity to participate in a very good project) and, secondly, how to manage projects in such a way that capital resources are not wasted; that the project is profitable – whether for state or private investment – and that its role in the country concerned is socially and politically in tune with that country's needs.

Private enterprise's role in development

One of the scarcest factors today is skilled management. Many new agricultural

projects are being managed by governments or by teams recruited by international agencies such as the World Bank, but increasingly governments and agencies are looking to the private sector to provide management resources. Often a team of managers and technical specialists that is part of a world-wide commercial organisation will operate more efficiently than would a 'scratch' team brought together for a specific project only. Men who are part of a private enterprise company will have a career structure within that company and will be highly motivated to ensure the success of any project in which they are engaged. They will be men whose abilities are well-known to the parent company which can ensure that their skills and experience are appropriate to the task they are given. Furthermore, they will have access to the back-up resources of the parent company.

Private enterprise certainly exists to make a profit on its capital employed and there can be no question of private business engaging in unprofitable 'make work' projects, and governments of developing countries cannot afford to squander scarce resources of capital and trained people on projects which are unlikely to make a significant contribution to national income within a reasonable period of time.

Private industry must be governed by the ruling market prices. Unfortunately, the market prices of resources often exceed their opportunity cost – and in many developing countries this applies particularly to labour – which can lead to projects being rejected as 'unprofitable' when they would seem to be viable on a social cost/benefit approach, or to uneconomic choices being made between capital-intensive and labour-intensive techniques. But if a project appears unattractive on the basis of market prices and yet would be of benefit to the economy as a whole, a government has the power to subsidise inputs, to provide infrastructure, or to encourage the development in other ways.

Bookers believe that in most cases close cooperation between government and the private enterprise sectors will lead to ways being found to achieve development that is profitable on a commercial basis and which satisfies the government's social and economic criteria.

It is sometimes argued that, even if market prices reflect real resource endowments reasonably accurately, when private enterprise in the form of a multinational company undertakes a project in a developing country, the result is often of little or no benefit in creating employment because highly sophisticated capital-intensive plants are constructed which provide only a few jobs for the unskilled local labour force and which may make little contribution to the overall balance of payments of the host country. This certainly need not be the case if social policy is taken into account in the objectives of a commercial enterprise – whether privately or state operated.

This paper illustrates the benefits of such cooperation by tracing in some detail the development of a single project in Kenya – the Mumias Sugar

Company. To illustrate the way in which this project solved some of the problems outlined aove it has been necessary to go into considerable detail in the pages that follow, but the basic fact is that as a result of close cooperation between the Kenya government, Booker McConnell Ltd and sources of international finance, a very profitable rural industry has been created bringing direct employment to 2,500 people and giving 5,000 small farmers an opportunity to grow a cash crop.

Mumias– the background

The Kenya sugar industry up to 1966 consisted of two factories located at Ramisi on the coast and Miwani in the Nyanza region. In 1967 and 1968 two new factories were opened in the Nyanza sugar belt bringing total productive capacity to 150,000 tons a year, compared with annual consumption of 190,000 tons growing at a rate of about 7½% p.a. However, there were serious teething troubles at the new factories and estates and production fell short of demand (in 1972 production was down to 97,000 tons) resulting in a continuing high level of imports.

The Kenya government had set itself a target of national self-sufficiency in sugar production and, as early as 1965, the Ministry of Agriculture had identified a possible new sugar area at Mumias to the north-east of Lake Victoria in the Western Province and had had a preliminary study carried out. The government had chosen this area because it had a high population density and was inhabited by a settled rural population dependent upon subsistence farming. As the results of the preliminary study were encouraging, Bookers Agricultural and Technical Services Ltd was asked to undertake a pilot scheme to establish the viability of a major sugar project at Mumias.

In order to reduce the overall time scale and cost of the Mumias sugar scheme and to make optimum use of the staff and equipment, the government requested that a preliminary stage of the main project should be carried out concurrently with the feasibility study. This 'Stage I commercial' was designed to enable rapid transition from the pilot scheme to the main project and could, in the event of a favourable decision at the end of the pilot stage, advance the date of the first sugar production by as much as two years.

The pilot scheme included all the normal agricultural and technical studies required for setting up a sugar project, but also included investigation of the social and economic impact on the locality. A final feasibility report produced in 1970 indicated that the project could be made both commercially viable and beneficial to Kenya from a cost/benefit viewpoint.

The Kenya government was anxious to start the pilot scheme as soon as possible and it therefore provided the initial finance – about £450,000 from its own resources. Booker McConnell provided £50,000. The Mumias Sugar Company was therefore set up in June 1971. The Kenya government holds a majority share (69%): other shareholders are the Commonwealth Development

Corporation (12%), the Kenya Commercial Finance Co (9%), the East African Development Bank (5%) and Booker McConnell (5%). Bookers were appointed managing agents. Most of the shareholders also contributed loan finance. The project was also supported by UK aid and by the World Bank.

The total capital employed by the company at December 1973 was £7.3m – the share capital represented £3.5m of this total.

The local environment

The Western Province is one of the most densely populated rural areas in Kenya with a population density in 1970 of 222 people per square mile. The population was growing at about 4% p.a. compared with the national growth rate of 3.3%. The majority of the population is occupied in subsistence farming.

Apart from a paper project at Broderick Falls, the Mumias sugar scheme is the only sizeable industrial development in the region. Holdings are small, averaging 10 acres, but land is not fully utilised and, apart from small areas of food crops, most farms largely comprise bush and rough grass. Before the advent of the sugar scheme no satisfactory cash crop had been developed in the area.

The outgrowers' scheme

A sugar factory represents a large capital investment (the Mumias factory cost about £4.5m). To ensure full utilisation of capacity, it makes good sense, in terms of organisational efficiency, to have all cane requirements grown on a single large estate and to put the whole scheme under one management so that field production matches factory capacity as closely as possible. Since cane has to be harvested when it is mature and cut cane cannot be stored for long periods, the management of a sugar operation is complex and both technical and commercial considerations call for the closest possible integration of all stages of production.

However, at Mumias the Kenya government had, as one of its major objectives, the provision of a cash income to small farmers in the area. It was, therefore, decided to set up a system whereby local farmers would grow cane – with the advice and assistance of the Mumias management – and sell the cane to the factory. The Ministry of Agriculture had considered setting up a cooperative, but were not convinced that that would be the best solution.

To get the project started and to ensure a certain continuity of cane supply to the factory, it was decided that a nucleus estate run by the Mumias Sugar Company was necessary. Out of a total of 28,000 acres of cane eventually required by the project, it was decided that 8,000 net acres would be provided by the nucleus estate and the remainder by the outgrowers. The land required for the nucleus estate was purchased by the government and leased to the company. In order to have the least possible unfavourable impact on the area,

it was decided that the nucleus estate should be based on swampy land which could not be cultivated by local farmers because it required large-scale drainage.

The factory and nucleus estate formed the central core of the scheme and it was envisaged that cane would be grown by farmers within an eight-mile radius of the factory. Here an economic/social problem arose. Economics suggested that it would be preferable to develop outgrowers' land in one quadrant at a time to minimise transport costs and maximise utilisation of equipment. However, this was not felt to be socially acceptable, as it would favour one area rather than another, and so it was decided to develop cane farmers' units with an even spread throughout the eight-mile-radius area.

Cane had been grown in the area – but the crop was of a very low standard. The first step in setting up the cane farmers' system was to demonstrate the value of proper cultivation and fertilisation. Bookers surveyed the area and listed all the farms. Between 1968 and 1970 some 35 demonstration plots were set up. These were scattered throughout the area and proved so successful that there was soon a queue of farmers wanting to be included in the scheme.

One of the greatest benefits of the time taken in the initial pilot scheme was that it allowed the unhurried growth of confidence, among the local farmers, in the new crop and the methods recommended for its cultivation.

A programme of cultivation was worked out which would let the farmer carry out all the manual operations himself while the company tackled the mechanical jobs – thus helping to maximise the farmers' income. A certain degree of mechanisation was inevitable, particularly in ploughing and cane loading and transportation.

In order to use machinery efficiently, cane fields had to be of a minimum size of about 15 acres. But the average size of holdings was about 10 acres. It was though socially undesirable for a farmer to have more than half of his land under cane, as he would then become too dependent upon this crop and lose his traditional food source. It was therefore necessary in most cases to persuade three or four farmers to pool contiguous parts of their land to make up cane fields of at least 15 acres. This the farmers were quite willing to do – each farmer retained the ownership of his part of the field, was responsible for the cultivation of the cane on it and sold his own cane to the factory. Thus the farmer was left with half his land for subsistence farming and on the remaining portion (which in most cases had not been cultivated previously) he could grow cane as a cash crop.

When the plots had been delineated and the farmers had cleared their ground of bush, stumps and other obstructions, the company ploughed the land and made available fertilisers and seed cane of the right variety and quality. The farmers then planted and tended the crop – under the guidance of the company's agricultural experts.

When it came to harvesting there was another 'mechanisation versus manual labour' decision to be made. Because of the need to coordinate collection and transport, cutting was the responsibility of the company which employed a gang of cutters. Each farmer, however, had the right, if he so wished, to be employed as part of the cutting gang when it was working in his area, thus giving him a chance to increase his cash income.

The cane was cut manually but loaded mechanically. Manual cane cutting is a hard job, but loading is even harder. Furthermore, as the local work force like to start work early and to finish by noon, it would have been much more difficult to achieve an economic utilisation of the road transport equipment if it could only be used during part of a day, especially in view of the large distances involved. Therefore, it was decided that the cane would be cut and stacked manually, but that the stacks would be loaded mechanically.

At the end of 1973, some 3,200 outgrowers were supplying cane to the factory and eventually 5,000 outgrowers will have 20,000 acres under cane, supplying 60% of the factory's requirements. In addition, some 30,000 people who are dependants of the farmers benefit from the scheme. It is intended to set up an outgrowers company which will be able to act for the farmers in their dealings with the sugar company and as a vehicle for channelling credit finance to the farmers.

The employees

The Mumias Sugar Company which is organised in four main departments – Agriculture, Factory, Finance and Personnel – employs about 2,500 people *viz:*

Unskilled	Semi-skilled	Skilled	Supervisory and Management
1,600	450	275	175

The majority of the semi-skilled and skilled employees work in the agricultural workshop and the factory complex.

The factory was supplied and built by Fletcher and Stewart of Derby – a subsidiary of Booker McConnell. It was constructed under budget and precisely to programme, and has been operating in excess of specified levels of performance since July 1973. In designing the factory, which processes 2,000 tons of cane a day and operates on a 3 x 8 hour-rotating-shift basis, every effort was made to avoid costly labour-saving devices but in some areas a degree of automation was desirable, both to simplify complex tasks, where uniform standards of operation are difficult to achieve even in the UK, and to overcome a critical shortage of men with previous sugar experience.

For example, one of the most skilled jobs in the factory is sugar boiling and in many areas of the world sugar boilers are still required to serve a five-year apprenticeship. At Mumias semi-automatic pan boiling controls were installed at an additional cost of £15,000. These, with a carefully formulated training programme and the assistance of one expatriate instructor, have enabled Kenyans with no previous experience to be trained to operate this key stage

of the production process in approximately six months. If this had not been possible, eight expatriate sugar boilers might have been required for several years, at a total cost to the company of more than £25,000 per annum.

Although only certain field operations – initial inter-row cultivation and cane-loading – are mechanised, a massive training effort was required in the agricultural department to induct the large influx of new employees, many of whom had not been in paid employment before, and to provide instruction in basic job methods and skills. This is vitally important even in so-called unskilled operations, if effective manpower utilisation and relatively high productivity are to be achieved. The success of this programme, together with a complementary system of incentive payments, can be gauged by the fact that the previously accepted output of a cane-cutter in Kenya of one ton of burnt cane per day has already been increased at Mumias to an average of over three and a half tons.

Our experience thus far is that with well-devised training programmes, which are now established in each department and section of the company, Kenyans are achieving standards of performance in a wide range of jobs comparable with those in other parts of the world. The area of greatest difficulty, as might be expected, is in the engineering trades where skilled mechanics, turners and other artisans are in critically short supply. An apprentice scheme, comprising modular training both on and off the job, has been running since 1972, but it will be several years before the first batch of apprentices is capable of achieving a standard of workmanship equal to that of a skilled artisan in the UK. In selecting apprentices (on the basis of interviews, intelligence and aptitude tests) it has been noticeable that the majority of applicants lack the basic mechanical 'knowhow' that one would find in a similar group in a developed country. This is a common phenomenon in rural communities where children do not play with mechanical toys and do not have exposure even to such simple machines as bicycles. A serious attempt is therefore being made to overcome this lack of basic experience in the early stages of the apprenticeship.

When production started in mid-1973 sixty of the company's 2,500 jobs were filled by expatriates. Of this number twenty were experienced Guyanese supervisors seconded, for a period of up to two years, from Booker McConnell's sugar operations in Guyana. The Guyanese brought not only technical skills but managerial experience based on the long tradition of the Guyana sugar industry. A similar programme of secondments from Guyana had already been tried successfully in a Nigerian sugar project.

The remaining forty expatriates are employed in senior technical and managerial roles and all possess diploma, degree or professional qualifications.

The company is committed to a policy of introducing local management at a rate consistent with the maintenance of high operational standards. The terms of reference of all expatriate staff include a major responsibility to train and develop Kenyan subordinates. This responsibility does not conflict with the understandable desire of an expatriate to continue employment overseas

as, in an expanding business, Bookers international staff have the incentive to work themselves out of a job at Mumias and thus become available for assignment to a new project in another part of the world, conceivably in a more senior role.

A comprehensive management development programme has been formulated and the details agreed with both the Mumias board of directors and the Kenyanisation of Personnel Bureau. Kenyan staff are encouraged to realise their potential through carefully planned career development supplemented by job rotation, on-the-job training, coaching, project work, external courses both in Kenya and overseas, and visits to other sugar-growing countries, as appropriate. Performance is appraised at regular intervals and staff are encouraged to discuss their progress with their superiors. Promotion is based strictly on merit.

It is hoped that by 1980 all but perhaps six senior management appointments, each of which requires considerable managerial experience in addition to a high level of technical expertise, will be filled by Kenyans.

Financial and cost/benefit analyses

The final feasibility study produced by Bookers in 1970 included a financial analysis of the project on a commercial basis as well as a social cost/benefit appraisal.

Financial analysis

The commercial analysis was straightforward: certain costs relevant to the development of the scheme, but not borne by the company, were excluded – eg costs of land acquisition and of the township required to house employees. In the event the company had to bear the costs of housing.

Revenue was calculated on the assumption that all sugar and molasses was sold to the Kenya government at £54.25 (£K45.25) per ton which had been the fixed price for some eight years.

Cane grown on the estate was assumed to be transferred at cost while outgrowers' cane was to be bought in at £2.8 per ton, less transport and other charges. At this price it was estimated that the cane farmer would have an income of between £163 and £182 per acre, per five-year cycle, depending upon the size of his holding. The income from a five-acre plot therefore would be about £168 p.a. which compares very favourably with the target income of £120 p.a. from a 7½ acre plot in the earlier sugar schemes in Nyanza.

On these assumptions the DCF return on the total capital employed in the project was estimated to be about 12% in real terms. The actual price paid for sugar is now (October 1974) £73.7 (£K61.5) per ton while cane is being bought in a £3.7 per ton. The company was profitable in the first six months of operation from 1 July 1973, although an initial loss had been assumed. This was mainly due to achieving higher agricultural yields, higher factory throughput and lower costs than had been forecast.

Cost/benefit analysis

The cost/benefit analysis attempted to assess the total social and economic impact of the project.

It was assumed that the value of the sugar was the cif price at which alternative supplies were available to Kenya (before the imposition of import taxes, excise, etc). Kenya obtained the balance of its requirements from Uganda at a net cost of £48.4 per ton with occasional purchases on the world market. The analysis took £48.4 (£K40.4) per ton as the value of the sugar produced by Mumias. In fact, the world price of sugar is now about £400 per ton and Uganda is no longer exporting sugar, so that the study grossly understated the value to Kenya of the Mumias sugar production.

There were problems in estimating the opportunity cost of labour as union agreements set a minimum wage of £0.26 (K.Shs.4.30 per day) whereas local agricultural labour was willing to take casual work at rates under £0.12 per day. Other research had suggested an opportunity cost for unskilled labour of about £27 p.a. compared with the £100 p.a. which would be the average going market rate for unskilled and semi-skilled labour. It was decided for the purposes of the analysis to take the opportunity cost of labour as 40% of the market rate, or about £40 p.a.[1]

For skilled labour, full market rates were assumed although there was little alternative employment for artisans in the area and the pilot scheme was employing skilled men as agricultural labourers. However, it was felt that in the event of a major development in the area the employment situation for skilled men could change radically.

In making these assumptions about labour rates the analysis again erred on the side of caution and probably understated the benefits of the scheme to the economy.

Training costs were included in the analysis and the full cost of employment of expatriate staff was charged to the scheme, even though the Kenya economy recovered some of this in the form of income tax and local consumption.

The cost of outgrowers' cane was assumed to be the actual costs of development, cultivation, harvesting and administration, excluding the cost of the farmer's own labour. No value was put on the opportunity cost of land because it was clear that land in the area was very underutilised (less than 50%) and that the sugar scheme would not result in any reduction of the output of other crops. The estimated balance of the farmer's income above this expenditure therefore was regarded as a social benefit as it represented additional net income for the farmers.

The cost of the land acquired for the nucleus estate was about £11 per acre with compensation for crops and houses of about £4.7 per acre. Much of the land was swampy and unoccupied and the remainder was not intensively cultivated.

1 The Mumias Sugar Company pays the full union-agreed wage rates to its employees. The 40% shadow price was used solely for the purpose of estimating the effective cost of labour to the Kenyan economy as a whole.

Furthermore, the payments for land would be used to purchase unutilised land outside the area of the scheme. It was decided therefore that the opportunity cost of the land was only the cost of buildings and standing crops that had to be destroyed, ie about £4.7 per acre – payments in excess of this were considered to be returned to the economy via the farmers who had sold their land.

The cost of providing access roads and staff housing was also charged to the project. No credit was taken for the benefits that the new road system would bring to the community.

The foreign exchange implications of the project were examined fully. Kenya benefitted to the extent of replacing sugar imported from Uganda at £48.4 per ton, but suffered foreign exchange losses on the purchase of capital equipment, maintenance materials, fertilisers, etc. It was calculated that between 1971 and 1973 there would be a total net foreign exchange outflow of about £5m but that this would be offset fully by 1976 and that, thereafter, there would be foreign exchange savings of about £1.8m p.a. In fact, due to the increased world price of sugar the foreign exchange benefits of the project will be far greater than was anticipated. At a world sugar price of £400 per ton the project would recoup its foreign exchange outlay within six months and even at £150 per ton the foreign exchange outflow will be offset by the end of 1974. Although the foreign exchange benefits of the project were analysed in detail, no account was taken of them in the final cost/benefit calculation, because Kenya was not in a critical situation as far as foreign exchange was concerned.

It is difficult to calculate the precise capital cost for each job created. If we take the capital cost as £7.5m and the total employment as 7,500 (2,500 employees and 5,000 outgrowers) the cost of each job created is about £1,000. However, it has been calculated that the outgrowers' scheme brought employment to some 30,000 people, thus substantially reducing the cost per job created.

Finally, although it was obvious that the project would bring many secondary benefits to the Mumias area, eg by generating additional food production and by improving transportation and retail and other services, no account was taken of these in the analysis.

The analysis based on the above assumption showed an internal rate of return of about 13%. If one assumed a cost of capital of 9% (in real terms) the benefit/cost ratio was 1.36. However, as the costs of the project were lower than anticipated and the world price of sugar is now almost ten times greater than that assumed for the analysis, the benefits of the scheme have increased almost beyond measure.

Furthermore, a balance has been struck between mechanisation and manual labour which is both commercially acceptable and socially beneficial.

As far as the Kenyan economy is concerned, Mumias has been a resounding success. The present high prices of sugar on the world market mean that the project will have repaid its foreign exchange requirements before the end of 1974 and that the internal rate of return from a cost/benefit viewpoint will greatly exceed the forecast 13%.

The project is directly employing over 2,000 Kenyans, providing a cash income for 5,000 farmers and indirect benefits to at least 30,000 people in the area. In addition, the Mumias area is now receiving considerable 'spin-off' benefits in the form of better communications and increased commercial opportunities for small traders and craftsmen. An area that was previously very poor is now a centre of local trade – with shops and small businesses flourishing where none existed before.

Thus, a project that was conceived by the Kenya government as a means of bringing employment to a depressed rural area has – with the support of UK aid, the World Bank, the East African Development Bank, the Kenya Commercial Bank and private enterprise – achieved all its social, economic and commercial objectives.

Conclusion

Booker McConnell believes that the experience of the Mumias sugar project illustrates a number of points that are of general relevance and which make the difference between a good development project and a bad one:

1 it was filling a major political, social and economic need in its area of Kenya

2 it was taken, by steady scientifically controlled methods, through every test of agricultural viability from the initial experimental plantings to the brink of the full-scale development

3 the local farmers, who were to be the main source of the project's raw material, participated from the start in the experimental growing of cane

4 at this point the feasibility study indicating the technical, financial and economic viability of the scheme was subjected to critical analysis by the government departments, by institutions such as CDC, by international aid agencies and by commercial investors – the criterion for proceeding was whether the project would make an acceptable commercial return (certain infrastructure costs, of general benefit to the area, were justified by the cost/benefit analysis)

5 only then was the hardware ordered for the factory and field equipment – and on terms which had been negotiated and subjected to independent scrutiny by the World Bank

6 training programmes from artisan to senior managerial level were worked out for each phase of the project and there is an agreed timetable for Kenyanisation

7 the government was closely involved in policy and in execution at all stages

8 there was no inhibition of the highest possible managerial and technical standards by way of limiting economic rewards below market levels whether to farmers, field or factory workers or to management

9 the management was not just a team of experts – it was a team of experienced managers with the central cohesion of unified responsibility to ourselves as managing agents on behalf of the government.

Table 1

The Mumias Sugar Company: Summary Data

Total capital cost	£7.5 m (Budget £8.7 m)
Size	28,000 acres
Production	
Planned	45,000 tons sugar p.a.
Actual	over 50,000 " " "
Future expansion	70,000 " " "
Employment	
Employees	2,500
Outgrowers	5,000
Shareholders	
Kenya government	69%
Commonwealth Development Corporation	12%
Kenya Commercial Finance Company	9%
East African Development Bank Ltd	5%
Booker McConnell Limited	5%
Total capital employed (31.12.1973)	£7.3 m
of which share capital	£3.5 m
Revenue	
50,000 tons sugar at government controlled price	(£ 73.7 p.t.) – £3.7 m p.a.
Foreign exchange saving at world price	(£400 p.t.) – £ 20 m p.a.

Chapter 3 Development and Employment: A case study of India

(The views in this paper are purely personal and do not in any way relate to the author's official position.)

R. M. Honavar
Minister for Economics, Indian High Commission, London

The generation of employment has figured prominently in India's development plans. For instance, the Second Five-Year Plan, covering 1956-61, (which might be considered to be the beginning of serious development planning in the country) stated that

> 'from the economic as well as from the larger social viewpoint, expansion of employment opportunities is an objective which claims high priority . . . The question of increasing employment opportunities cannot be viewed separately from the programme of investment in the Plan. Employment is implicit in and follows investment, and it is of course a major consideration in determining the pattern of investment . . . An employment-oriented plan, however, implies much more than determining the scale of investment. The creation of employment opportunities and the reduction in under-employment cannot be approached merely in overall terms. The problem needs to be broken up in terms of sectors, regions and classes. Diversification of the industrial pattern, a suitable policy on location of industries, special measures to assist small scale and cottage industry, maintaining of economic activities continuously at high levels, provision of adequate training facilities, measures to promote geographical occupational mobility of labour, all this must be considered as elements in the programme of creating new employment on the requisite scale'.[1]

In the Third Five-Year Plan (1961-66) this was stated even more emphatically as follows:

> 'Employment has been a major objective of planning in India; it was so in the first two plans and has assumed a special urgency in the Third. Full utilisation of the available manpower resources can be achieved after a considerable period of development. However, expansion of employment opportunities commensurate with the increase in the labour force over the plan period is conceived as one of the principal aims of the Third Plan. In view of the numbers involved, provision of adequate employment opportunities is among

1 Second Five-Year Plan pp 26–27.

the most difficult tasks to be accomplished during the next five years'.[1]

The same theme was taken up in the Fourth Plan (1969-74) as well and the objective of greater social justice was added to the task of creating more incomes and employment. The concern with employment is repeated in the Draft Fifth Five-Year Plan (1974-79) as follows:

> 'The importance of providing adequate and increasing employment opportunities in our development programmes cannot be over-emphasised. The basic objective of any developmental Plan must always be the projection of an adequate living standard for all people in the country. Mere achievement of an increased average per capita income cannot by itself help in the achievement of this objective unless there is a reasonable assurance of suitable employment to every citizen who has the capacity of being gainfully employed, in a manner, which will not only give remuneration but also social satisfaction in the use of his talents and capabilities'.[2]

The record on employment creation

While there has been such acute awareness of the need for increasing employment, performance in the generation of employment does not seem to have matched intentions. The Second Five-Year Plan estimated that 15.3m jobs would have to be created in the rural and the urban areas if unemployment was to be eradicated in the Second Plan period. This figure took account of not merely the additions to the labour force during the Plan period but also the backlog of the unemployed of 5.3m. The problem of underemployment did not, however, figure in this estimate. The Second Plan hoped to create about 8m jobs through investment in the different sectors. It was also argued that irrigation and greater investment in the agricultural sector by individual farmers would lead to the creation of another 1.6m new jobs. Therefore, even if everything were to happen as planned, the backlog of unemployment inherited from the First Plan was not in any way to be eliminated as a result of development in the Second Plan.

At the end of the Second Plan, however, the conclusion was that the employment situation, instead of improving, had actually deteriorated. It was estimated that the backlog of unemployment to be covered in the Third Five-Year Plan was now 9m as opposed to 5.3m at the beginning of the Second Plan. The increase was due in part to a larger addition to the labour force than visualised in the Second Plan and in part to a failure to achieve the targets proposed for the Second Plan.

An addition of 17m people to the labour force was expected to occur in

1 Third Five-Year Plan p 154.

2 Draft Fifth Five-Year Plan p 267.

the Third Plan period. Since on the basis of available data it was felt that not more than 14m jobs would be created as a result of planned investment, it was decided that a series of special measures would be taken to increase employment by another 3m so that at least new entrants to the labour force in the Third Plan period could find employment. Thus as the dimensions of the problem increased the planners seemed to have become less ambitious.

In the Fourth Plan, however, this approach was abandoned because of the divergence of opinion regarding the proper definitions of, and suitable yard-sticks for measuring, unemployment and underemployment in rural areas. It was felt that estimates of labour force, additional employment generated and unemployment at the beginning and the end of a plan period presented as bare totals are neither meaningful nor useful as indicators of the economic situation. Therefore, no estimates of employment generated by the investment in the Third Plan or likely to be created as a result of the investment proposed in the Fourth Plan were provided. As the Plan progressed, however, the feeling gained ground in many quarters that the employment situation had deteriorated seriously. In particular, unemployment among the educated attracted a great deal of attention. A Parliamentary Committee on Unemployment came up with an estimate of 19m unemployed in 1971.[1] Purely by coincidence independent investigators like J Krishnamurty,[2] A K Sen[3] and Raj Krishna[4] have also come up with similar estimates (18-21m).

There are a number of other pointers to the same conclusion. The reader is warned, however, that because of the limitations of the data presented below too much should not be read into them.

Table 1 – Selected employment figures ('000)

Total number of applicants on the live registers of Employment Exchanges		1960	1966	1969	1970	1971
		1600	2622	3424	4068	5100
Factory employment (Daily average)	1951	1961	1966	1969	1970	
	2914	3918	4702	4799	4938	
Employment in mines	549.0	671.0	699.3	638.5	638.2	

Source: *India, Pocket Book of Economic Information*, Ministry of Finance, New Delhi, 1972.

1 Quoted in 'Dimensions of Unemployment in India': Convocation Address at the Indian Statistical Institute by A K Sen, 1973.

2 'Employment Prospects in India'; a privately circulated paper.

3 'Dimensions of Unemployment in India', *op. cit.*

4 *Ibid.*

Some reasons for failure

A natural question which arises is: Why is there such a failure to realise the employment objective? One possible explanation is that the development strategy was wrong. Though the creation of employment was an important objective one cannot be certain that the strategy was designed specifically to solve the problem of unemployment.

Although it was refined continuously, the planning process could be most simply described as follows: a target for income growth based on a fairly long-term perspective was set for the period of each Plan. The investment requirements of this income target, based on some capital-output ratio, and resource requirements, based on the community's propensity to mobilise resources, were then worked out. At the same time plans for the development of each sector were worked out separately taking into account such objectives as food self-sufficiency, the development of basic industry, saving of foreign exchange, self-reliance etc. These were then meshed with the aggregative model in a rough-and-ready sort of way, with a fair amount of adjustment for internal consistency. The employment likely to be generated by the investment planned in the different sectors was then calculated. Though some adjustment was made in plan investment if the employment consequences were unsatisfactory, employment was a consequence rather than the prime objective of the development strategy. The two tables below give the details of investment in the Four Plans and employment likely to be generated in the Second and Third Plans.

Table 2
Pattern of Plan Investment

	2nd Plan		3rd Plan	4th Plan	5th Plan	
	R m	% of total	R m	R m	R m	% of total
Agriculture and community development	8350	12.4	14600	37180	62800	13.2
Major and medium irrigation	4200	6.2	6500	10730	25490	5.4
Power	4850	7.2	10620	25230	62400	13.1
Village and small industries	2650	3.9	4250	7460	148230	31.2
Organised industry and minerals	15450	22.9	25700	52980		
Transport and communications	14100	20.9	17360	41170	89050	18.7
Social services and miscellaneous	12900	19.1	16970	51600	30130	6.3
Inventories	4000	5.9	8000	—	13550	2.8
TOTAL	67500	100.0	104000	226350	475610[a]	100.0

[a] Including others

Sources: *India, Pocket Book of Economic Information, op. cit.* and Draft Fifth Five-Year Plan.

Table 3
Employment Likely To Be Generated
(Million units)

	2nd Plan	3rd Plan
Agriculture	2.00	3.50
Construction	2.10	2.30
Irrigation and power	0.05	0.10
Railways	0.25	0.14
Other transport and communication	0.18	0.88
Industries and minerals	0.75	0.75
Cottage and small industries	0.45	0.90
Forestry, fisheries, etc	0.41	0.72
Education	0.31	0.59
Health	0.12	0.14
Other social services	0.14	0.08
Government service	0.43	0.15
Others including trade and commerce	2.70	3.78
TOTAL	9.89	14.03

Sources: Second Five-Year Plan and Third Five-Year Plan.

As can be seen, the sectors receiving the largest share of investment allocation are not those which generate the largest volume of employment, and vice versa. Thus, organised industry and minerals accounted for a little less than a quarter of total investment in the Second Plan but provided only about 7½% of total jobs. On the other hand, cottage and small industries provided 4.5% of the jobs, with an investment of about 3%. Agriculture accounted for 12 to 14% of investment in the two Plans and generated employment varying from 20 to 25%. Transport accounted for about 16% of total investment in the Third Plan and provided only about 7% of additional employment. The employment objective was to be reached in these sectors by attempting to increase the employment intensiveness of the investment allocations proposed rather than by switching the allocations themselves. It was recognised that not many jobs are likely to be generated in industries such as steel-making and machinery building, but there was no question of reducing their investment allocations because they were vital to economic growth in the long term. In the industrial field, therefore, employment was to be generated in other sectors, particularly consumer goods. Small-scale production was to be encouraged and rural industries were to be built up. Production was reserved in certain areas for small-scale production with a view to encouraging employment generation.

In agriculture, in addition to all the programmes aimed at raising productivity, special ones were formulated to increase work and employment opportunities for small farmers and marginal farmers and those living in dry farming areas. A rural works programme was drawn up for drought-prone areas, and soil conservation and waste land reclamation were undertaken on a major scale. Rural electrification and minor irrigation were supposed to provide employment to both skilled and unskilled workers on a substantial scale.

The planners were aware that the number of jobs that would be created was not adequate for eliminating unemployment, not to mention underemployment. Their defence was that, given the resource limitation and the pattern of investment, this was the best that could be done.

A different pattern of investment was not considered feasible because, given India's resource endowment and its limited export prospects, import substitution was by far the best way of achieving rapid growth and a quick diversification of the economic structure. A great emphasis was laid on the setting up of heavy industry, which was thought to be justifiable in view of India's size. This also meant major development in related sectors like power and transport. Given the state of technology it was but natural that the employment objective received second place.

It was, however, felt that low growth of employment would only be for a short period.

The Mahalanobis model[1] had shown that an economy investing continuously a larger and larger volume of resources in the machine-making sectors would

1 'P C Mahalanobis, 'The Approach of Operational Research to Planning in India', *Sankhya*, December 1955.

show a tremendous amount of growth in less than a generation. Therefore any lag in employment growth in the earlier part of the growth process could be made up in the later part. Although it was not stated so explicitly, this would not be an unfair implication from the unwillingness to consider a change in the allocation of resources towards employment-intensive sectors.

Investment and employment

The Mahalanobis model assumes a steadily increasing rate of growth year after year as a result of increasing investment. The reality has been otherwise in India. In the Second and Third Plan periods the economy grew at an annual rate of 3.4% against a target of 5% p.a., and there were serious fluctuations in the year-to-year growth rate. In the three years following the Third Plan national income increased by 4.5%, mainly because of a record increase in agricultural output in 1967/68. On the other hand, in the first four years of the Fourth Plan the annual rate of growth has been 3% against a target of 5.5%. Given that the rise in the work-force has also accelerated during this period, it is no wonder that the employment situation is not showing any perceptible improvement.

This failure to achieve high rates of growth, so essential to increasing employment, seems to be due to two reasons. First the volume of investment over the two decades does not seem to have been high enough. The highest rate of investment the economy managed was 14-15%, towards the end of the Third Plan. Since the disastrous harvest of 1965/66, which led to a sharp drop in growth, the economy never managed to attain such a high rate of investment.

The investment performance was directly related to a shortage of resources. It improved in the Third Plan because of the substantial volume of aid received during that period. In subsequent years this aid went down and the disruption caused by the very poor harvests of 1965/66 and 1966/67 made internal resource mobilisation that much more difficult. Also, while the centre has made a remarkable effort to raise resources for investment, this has not been matched by the state governments.

The pay-off on resources actually devoted to investment also seems to be much less in the Indian economy. The gestation period of projects has often been much longer in India than planned: when completed, capacity utilisation is not as high as intended. Cost overruns are quite common: the shortfalls in one sector hold up progress in another because of the serious foreign exchange shortage and, as a result, capital/output ratios turn out to be significantly higher than planned. Implementation is often so faulty that the results actually achieved fall severely short of expectations. This is particularly so of the many special schemes launched from time to time to increase employment in the different sectors of the economy. Lack of planning and organising skills seems

to be as serious an obstacle to growth as the lack of capital itself[1].

A question worth asking is whether, even within these constraints, an effort has been made to extract the maximum of employment potential from current investment. Economists have always argued that in a labour surplus economy labour-intensive techniques would be an appropriate use of resources. There is a feeling that, in general, developing countries use techniques unsuited to their resource endowments. This view is perhaps based on the case of industry, in a sense the most glamorous and certainly the most emphasised sector in developing economies. But if a sector-by-sector examination were, however, made in India it would be difficult to assert that capital-intensive techniques are invariably used.

In agriculture most of the operations are labour-intensive. This is partly because of the relatively small size of holdings and the nature of traditional cultivation techniques. It is only in the past four or five years that tractors and mechanical harvesters have made perceptible impact on the agricultural scene, particularly in areas such as the Punjab which have experienced a fair amount of continued prosperity. But the introduction of new seed, fertilisers, irrigation, pesticides etc, does not seem to have led to any significant change in the labour intensity of cultivation techniques. In related operations like land conservation, minor irrigation and processing of agricultural products, the techniques do not appear to be unduly capital-intensive.

This is also true of methods employed in construction. By and large, in building construction – whether houses, offices or factories – methods used are not significantly different from those used a few decades ago. Road construction techniques also remain more or less the same. It is only in very large jobs – such as the building of large dams and bridges – that modern methods are used. The Bhakra dam seems to be a prime example of the use of very capital-intensive techniques of construction and the justification for this seems to have been the project's technical requirements. Even in dams the techniques used range over the entire spectrum from Bhakra to the largely labour-using Lower Bhavani. Again the associated earthwork and canal work have used largely labour-intensive methods. It is no wonder therefore, that construction was expected to contribute the most to the estimate of employment likely to be created in the Second and Third Plans.

In railways and other transport also the techniques do not appear to be capital-intensive. Granted that railway equipment itself is capital-intensive, neither construction nor operation of the railways can be described as anything but labour-intensive. Road transport is recognised all over the world as labour-intensive, directly as well as indirectly.

It is in industry that the question of choice of techniques arises acutely.

1 'A review of SFDA & MFAL programmes has revealed that there have been important gaps in the execution of these programmes, and, as a result, progress has been uneven from area to area. A major problem has been that a proper dove-tailing of resources under State Plans and the Funds available under these programmes has not been attempted'. *Economic Survey 1973-1974* p 9.

This is because of the vast range of industry – steel, machinery, machine tools, electrical equipment, chemicals, cement and consumer goods such as textiles, shoes, sugar, soap and drugs. Government has recognised that the scope for creating jobs is strictly limited in fields like steel, machine-building and heavy chemicals because of the nature of existing technology. In other fields – textiles is a prime example – the attempt has been to increase employment through the encouragement of small-scale and village industries and the reservation of a part of the market for the latter.

There has been a good deal of debate on the question whether village industries reflect a more rational use of the relative scarcities of labour and capital in developing countries. An extreme view has been that many of the techniques used in village industries are so inefficient that they are wasteful of both labour and capital.

The first argument has a certain validity. For instance, with regard to spinning, it was found in India that the 'Amber Charkha' with 4–8 spindles represented a wasteful use of resources as compared to a ring frame in a modern spinning mill. Such an evaluation of different techniques does not appear to have been done extensively.

It has been argued that with regard to techniques there is no real difference between small industries and large-scale industry. The difference lies more in the scale and organisation of production. Thus the difference between power-looms and a large-scale textile-weaving factory really lies not in the type but in the number of looms. (Perhaps automatic looms are an exception.) Similarly, making of nails in the small-scale sector and in the large-scale sector differs not in the type of machines used but in the number. This would be true of many other sectors as well. This means that whatever other advantages small-scale industry may offer, a significant increase in employment generated may not be one.

The local private sector

It is interesting to note that while economists have been concerned with the appropriate exploitation of relative factor scarcities, businessmen in India do not seem to be as alive to it as one would expect. There seem to be several reasons for this.

An important cause is that technology developed in labour-short economies in the West has been applied without any change in India. This is because the engineers who went with the processes, either as employees of foreign private investment or as collaborators with Indian private investment, did what they knew best. Even Indian engineers trained abroad did what they knew best, *viz* faithfully use the techniques they acquired there on Indian soil. One can understand easily why foreign investment was not interested in labour-intensive techniques. It was the path of least resistance to transplant whatever they knew abroad to the Indian soil.[1]

1 Michael Kidron, *Foreign Investments in India*, London, OUP, 1965, pp 244-5.

Indian private investment could have been expected to be more actively interested in exploiting the easy availability of labour. Its failure to do so seems to be due to two factors. First the protection afforded by government policy and the vast market created by the policy of planned development gave an impetus to the setting up of industry anyhow. Entrepreneurship seemed to be more a matter of animal spirits than of fine cost/benefit calculations. Since knowhow had to be borrowed in most cases, the emphasis was on securing satisfactory terms of collaboration rather than on modifying technology. Very often the new entrepreneurs were importers of yesteryear whose business had been disrupted by the import substitution policy of government. Nothing was more convenient than to enter into a manufacturing arrangement with the firm which had earlier supplied the imports. Their concern was with marketing rather than manufacture and very often they would be perfectly content to leave the manufacturing to the foreign collaborator as long as marketing was in their hands. Higher costs of production did not seem to matter much as they could always be passed on in a completely sheltered market.

The record of public sector projects in the adoption of labour-intensive techniques has not been particularly good either. This is in part due to the nature of the projects in the public sector – steel, heavy machinery, fertilisers, oil refining, petrochemicals, power, locomotives etc. It is in part due to the orientation of engineers in these projects and their anxiety to be as sophistcated as their counterparts abroad. It is professionally more exciting to design complicated machinery than to simplify it to use more manpower. Some of these projects may well have more people than they strictly need, but this is not so much a sign of the modification of technology as of inefficient or helpless management.

Though economists have talked of intermediate technology for a long time very little seems to exist as a matter of fact. Adaption of technology to a new set of factor endowments is not easy and requires sustained R & D work. Foreign investors cannot be expected to devote the resources and time required for such modification, particularly when the technology is one of many operations in a worldwide chain. Indians could not do R & D work at the very moment they were acquiring the new technology. Over the years, however, adaptation has been occurring to some extent, mainly because of the shortage of foreign exchange. With the increasing difficulty of importing equipment ways had to be devised of modifying processes and designs to use locally available materials and equipment. Also as Indian engineers became familiar with processes and equipment their ability to modify increased. The process, however, does not seem to be easy even for technically experienced firms like Kirloskars, if Baranson's findings are any evidence.[1]

There is also a major obstacle to using labour-intensive processes in large-

1 J Baranson, *Manufacturing Problems in India: the Cummins Diesel Experience*, 1967, pp 66–69 and 118–20.

scale industries. With increased labour legislation and unionisation, a firm finds that a growing part of its time is devoted to tasks other than strict manufacture. It has to worry about the canteen, housing, hospital facilities, creches and so on, particularly in what might be called virgin factory areas. The task of labour management for which the engineers have no particular expertise or taste becomes so much more important that for professional reasons they begin to prefer capital-intensive techniques even though they are more costly. In terms of total outlays they may not in fact be more costly.

It is also not all that clear that modification of techniques is possible in every case. There may not be labour-intensive ways of making steel or fertiliser (*pace* the backyard furnaces in China), machine tools or heavy machinery. Secondly labour-intensive methods would require much more organisation than do capital-intensive techniques and organising ability is not abundant either in developing countries. This can be seen from the experience of bodies like the All India Handloom Board and the All India Khadi and Village Industries Board.

It has been pointed out that had factor pricing reflected accurately the scarcities of labour and capital in the economy the incentive to replace capital by labour in the production process would have been much greater in many industries. Government policy and institutional rigidities have been responsible for lowering the price of capital and raising the price of labour in relation to their economic levels. This process assumes a range of alternative techniques with different combinations of capital and labour. If there is no such range, such pricing may result either in no growth or in high prices. Secondly, there is no reason to assume that the present pattern of resource allocation would have taken place with a different set of factor prices. While the employment objective may be secured, other objectives such as more rapid growth over the long run may be more difficult to achieve. If, therefore, a particular growth pattern is considered desirable and some of it happens to be capital-intensive, the employment objective may have to be sacrificed to some extent.

The question of location

The employment problem in India has a spatial aspect as well. The productivity of agriculture differs considerably from area to area and the concentration of industry varies widely from state to state. One of the objectives of planning has been to eliminate these regional disparities and bring income and employment in backward states like Bihar, Orissa, and Rajasthan up to the national average. This was to be done through increased agricultural investment. As rural backwardness is often associated with poor and irregular rainfall, more dams, canals, wells, pumps were conceived as the first step in improving agricultural productivity. Attempts have also been made to direct industry to these regions, in the hope of generating expansionary ripples in the surrounding regional economy. The steps taken have been: allocation of public-sector investment, direction of private-sector industry through the grant of industrial

licences, grant of financial assistance, special facilities with regard to land, power and water to industry and so on.

The distribution of industry in the backward areas has had only limited success. Although large volumes of investment were directed to backward areas like Bhilai and Bhopal in Madhya Pradesh, Rourkela in Orissa, Benares in Eastern Uttar Pradesh, and Ranchi in Bihar, the linkage effects seem to have been almost nil. One explanation could be that the volume of investment actually undertaken was too small to spark off sequential growth. Alternatively it could be argued that the nature of the investment proposed made demands which were either too sophisticated or too large for the skills and entrepreneurship existing in the surrounding area. Leakages must have occurred and benefitted distant established areas like Bombay and Calcutta.

The attempt to direct industry to backward areas through licensing and other instruments was not very successful either. Except for raw-material-oriented industries like paper, cement or sugar, there was hardly any movement away from well-established centres. The advantages conferred by nearness to the market or to a large centre of population or industry seem to have more than compensated the loss of the benefits promised by the state. Often the instrument of licensing proved awkward for directing industry to the desired areas. An excellent example of this is the concentration of industry around Delhi, though in terms of industrial licences it is located in the states of Uttar Pradesh, Haryana, Punjab or Rajasthan. Prospective entrepreneurs, having acquired licences for locating industries in the so-called backward states, moved heaven and earth to get back to the major centres. The financial incentives offered for location in backward areas also seem to have been inadequate to bring about any significant movement.

Experience with industrial estates built to house small-scale industry has also been the same. Those estates which were located close to large industrial centres like Bombay, Delhi and Madras have done far better than those in backward areas far removed from the main areas of industrial activity.

Proposals for solutions

How is this enormous problem to be solved? The following quotation from the Fourth Plan document is very relevant in this context:

> 'In a recent report on the World Employment Programme, the International Labour Organisation has forcefully argued for the integration of employment creation to economic development through the maximum possible productive use of available labour to accelerate economic growth and, more particularly, to substitute labour for some capital where this is economically feasible. The International Labour Organisation has suggested that this could be attained through a strategy of development involving comprehensive programmes of rural development, labour-intensive industrial products for domestic and foreign markets and application of

economically sound labour-intensive techniques in industrial production. The adoption of such a strategy will have far reaching implications for investment planning. There will be need for more investment (at least of certain kinds) in "human as compared with physical capital". A greater volume of investment will have to be directed to rural development rather than to urban development. Investment plans will have to give some preference to small scale over the large scale projects. A shift in investment towards economically sound labour intensive industries rather than capital intensive industries will have to be necessary. As a corollary it will also be necessary to adapt the choice of techniques and product mix to this approach. Investment in capital intensive industries would, as a corollary, have to be limited to those industries in which only intensive technology is available and necessary to exploit particular natural resources of the country. More industrial investment will have to be directed to the production of essential rather than non-essential consumer goods. This is a necessary counterpart to any policy for employment production!

'The strategy of development envisaged in the Fourth Five Year Plan is in broad conformity with what has been indicated above. The emphasis on labour intensive programmes through development of agriculture, rural infra-structure including communication and transport links, rural electrification, water management, rural industries, decentralisation and dispersal of industrial investments, rural and urban housing in the investment programme is in line with this strategy. Large scale capital intensive investments are limited to projects where technological considerations and economy of scale do not permit adoption of labour intensive techniques. While creation of employment opportunities has been an important consideration, emphasis has equally been placed on productive employment on a sufficiently high level of efficiency'.[1]

What does one make of the fact that despite this strategy of development the employment situation worsened considerably in the Fourth Plan period? As stated earlier, an obvious reason was the failure of the economy to grow at rates laid down in the Plan. This was due to low rates of investment which in turn were due to lack of resources. In a predominantly agricultural economy fluctuations in agricultural output have crippling overall effects. Besides during this period India had to face a major political and military upheaval on its eastern border which has had both immediate and delayed effects on economic growth. The main way out would be to get the economy to grow at much higher rates than has been the case so far.

It is true that this is an obvious suggestion. The crucial question is how it is to be brought about. Since investment levels have not been as high as they were in 1965/66, an equally obvious answer would be to raise the volume

1 Fourth Five-Year Plan: pp 429–430.

of investment. Given however the constraint of internal resources, a higher rate of investment would perforce point to an inflow of resources from abroad. It has been argued that the constraint on resources is not a real one and that with appropriate policies many more resources can be raised. However, Indian society as it is constituted today does not appear to be able to generate a higher level of savings. On the other hand the inflow of resources from abroad also seems equally problematic.

Since fluctuations in agricultural cutput have been frequent and since agricultural activity has an important role in providing more employment, one could argue that an objective of policy should be a greater emphasis on agricultural growth and a reduction in the amplitutde of fluctuations in agricultural output. The entire gamut of measures required for this purpose has been spelt out in almost every plan document. India's inability to make more headway seems to be as much due to lack of organisation as resources. Innumerable agencies have been set up to deal with different aspects of the problem but none seems to function with either imagination or élan. One must not, however, forget the magnitude of the problem in one's anxiety to judge. There are pockets here and there of remarkable performance – a tribute more to individual energy and initiative than to the system. To duplicate this over the entire country is not an easy task. It is also bound to take time, during which the number of persons seeking and eligible for work increases inexorably.

More R & D work also needs to be undertaken in India to modify existing technology. It is somewhat odd that, in spite of the urgent need in countries like India, the only research in the development of intermediate technology is taking place in Britain and the USA. It is difficult for young scientists and engineers to forego the excitement of involvement in modern techniques and take up what looks like something more mundane. The entire orientation of science and technology has to be changed in countries, like India, with huge populations. Stray exhortations have to be replaced by a systematic policy with adequate resources.

Finally, all these measures will not solve the problem of unemployment if the labour force expands at the same pace as jobs. There has, therefore, to be a significant effort to control the growth of population. The Draft Fifth Plan recognises this in the following words: 'Lest the fruits of growth are eroded by the labour force explosion resulting from a rising population, the approach to family planning will be oriented to evolve an effective range of programmes of family limitation'.[1] This, however, is a fairly long-run solution.

The role of foreign private investment

How can foreign investment promote the employment objective in India? To the extent that slow growth is due to lack of resources an inflow of more

1 Draft Fifth Five-Year Plan: p 268.

private foreign investment may appear to be helpful. However, India does not permit the free entry of capital, though once in there is no discrimination vis-à-vis Indian capital. Private foreign capital is allowed in fields which have a high priority in India's development programmes or which promote India's exports substantially or which need a technology which has to be imported. The inflow of foreign capital is also subject to a ceiling of 40% of the total capital of the enterprise, though in exceptional cases this is relaxed: for instance in the Santa Cruz Free Zone for Electronic Exports much higher percentages have been allowed.

This restrictive and unwelcoming policy towards foreign capital has evolved over the years due to a growing feeling that private foreign capital is attracted to India by the size of the internal market but does not contribute significantly to its development objectives. The various restrictions imposed are really aimed at channelling it in the direction of greater developmental benefit.

The best contribution that private foreign investment can make would be to move into those fields which are both labour-intensive *and* export-oriented. Electronics is an obvious example. But others such as clothing manufacture, castings and forgings, spare parts and ancillaries for automobiles would also qualify easily. Since the Indian government wants new technology, the problem of entry would be so much easier if the foreign firm invested in developing intermediate technology.

This is not as altruistic as it sounds. What it requires is the breaking up of automatic mechanical operations into a much larger number of manual operations and training people to undertake them with the requisite skill. This has been done with great success in Japan by Japanese entrepreneurs. To repeat it in India needs greater imagination as well as a persistent desire to organise and train.

A second course of action open to foreign investment is the greater use of sub-contracting. Over the years a fair amount of small-scale industry has grown up in India. While its capacity is sizeable, its methods are not always the best. Private foreign investment could sub-contract work to these so that they acquire better designs, the habits of working to a schedule, greater accuracy and generally higher skills. Such a process is already going on to some extent in India because of the difficulties experienced by larger firms in the expansion of capacity as well as the supply of raw materials. But it has not grown substantially because of two factors: (i) since anything can sell in the highly protected Indian market the larger firms very often do not bother about standards; (ii) the larger firm tends to misuse its greater economic strength and exploit the smaller firms. If foreign firms used existing capacity for export everybody would have to worry about quality. Secondly the temptation to exploit the smaller firms arises from the controls on domestic prices. Such restrictions do not apply to the external market.

The long-term gains of this course of action are two-fold. Firstly, not only will it use existing capacity fully but to the extent it contributes to growth it

will promote employment generally. More important it will improve the state of technological awareness in the economy as a whole as well as the knowledge of modern manufacturing methods. This is bound to have repercussions on the ability and willingness to modify technology to suit local needs, and through this on employment.

Chapter 4 Transfer of Skills

William Bell CMG MBE
Director General, Council For Technical Education and Training For Overseas Countries

'The two main channels for transferring skills are the provision of qualified people to the developing countries and the training in donor countries of their nationals'[1]. Because the background to this paper is skill transference in the public sector—which at once raises the question of its relevance to private sector transfers—the quotation will serve as authoritative text. The key words are transfer and skills, people and channels.

The background to transfer

Transfer means not so much conveyance as making two flowers bloom where one bloomed before. The assumption—which can be dangerous—is that the developing world is committed to the standards and objectives of the developed, and that the skills of one are therefore relevant to the other. The assumption is not new; the setting to which it applies is today much changed.

In a colonial atmosphere—whether British imperialism or US spheres of influence—transfer was governed by divine right. The colonial power decided what needed to be transferred, and transferred it. The popular nostra were technical education and training—in that order. Both were deemed so basic to development that the transfer argument began 'surely it is inconceivable' and followed on from there.[2] Those were the days before manpower planning—the new nostrum—became fashionable; so British systems of technical education and vocational training were transferred—or rather transplanted—to Kenya and Malaysia alike, often with scant regard for the employment market. The agents of transfer were entire staffs for new institutions and organisations, on permanent terms or contracts automatically renewed. The longer they stayed, the more out-dated they became—the pace and pattern of change in the British system has been remarkably rapid in recent years—to the irritation of newcomers periodically injected from Britain; and to the bewilderment of those locals sent to Britain for advanced instruction. Uganda provides a good example. In the 1950s occurred a wholesale importation of the British technical education system, with accompanying staff. Many stayed on after independence in 1962—not surprisingly; living standards were high, and jobs secure, primarily because there were few trained Ugandans anxious to assume them. Then came Amin, the cessation of aid, and the return of this

1 'The Work of the New Ministry' – Ministry of Overseas Development. London, 1965.

2 B. Schaffer *Administrative Training and Development; A comparative study of East Africa, Zambia, Pakistan and India.* New York, Praeger Publishers, 1974.

expatriate cadre to Britain. They were to find reabsorption or re-employment extremely difficult—they were too out-of-date for British institutions, and overseas institutions deemed their experience irrelevant.

Whether or not it was irrelevant is beside the point. What mattered was that the point at which relevance was decided had changed. It had now passed from the developed to the developing, and there emerged a clearer definition of the purpose of transfer: to fill temporary gaps by outside, time-limited importation. Defining the gaps and approving the means of filling them had become matters for local decision.

Developed and developing countries moved to closer accord over the site of transfer, preferring one expatriate instructor for a dozen trainees to the sending abroad of the dozen. Multiplier was the new in-word. The obvious advantages of this approach were enhanced by cold realisation of the attraction of metropolitan city lights. In the early 1960s only 1 in 6 West Indians receiving sponsored education and training in Britain ever went home. In the 1970s, when British aid concentrated instead on supporting West Indian institutions, only 1 in 5 went to the UK; give or take emigration, the others stayed put. Skills were transferred not only to the individual, but to and within the region.

Emigration remained a real hazard – not the uncontrolled post-war flow, but the subsequent and strictly limited system which placed a premium on skills, making it easier for developing countries to lose precisely those people they most needed to retain. *Punch* depicted the ultimate absurdity—a boatful of doctors and nurses (black) on the Barbados-Britain passage, passing an outward-bound boatful (white). And only the latter had return tickets.

In the wake of independence came new forms of transfer, with multiple skills and techniques on offer—some inappropriate, others too expensive, all displayed for overseas delectation. Trade interests, sometimes sharpened by the close relationship between aid and trade (however played down) led to more direct and pressurised contact between metropolitan businessmen and local politicians than happened when a British colonial service stood between. As the point of sale altered, so did the tactics, for if you can no longer prescribe and administer potions, you seek instead to influence the patient's own diagnosis. So the distasteful word 'ventriloquising' crept into the aid donors' vocabulary, as they practised an art as old as Genesis, when the voice—to Abraham's cost—was Jacob's voice, but the hands were the hands of Esau. The turn-key project also became familiar. You provide the cash, the site, the facilities (a usefully vague package word); we will build and run it. In came the steelworks, the harbour installation, the electricity undertaking. Many had built-in training and staff development components. But some did not; and fewer still related them to the local technical education and training systems. Many projects, admirable in themselves, later turned sour because they came to be regarded, locally, as alien—not only in the context of transfer of profits, with which this paper is not concerned, but of transfer of skills, with which it is. Top management and key technician jobs tended to be held by foreigners; while counterpart training produced elite cadres who

not infrequently took their acquired skills elsewhere, losing them not to the economy but to one politically vulnerable part of it. In the commercial packages now being negotiated with the oil-producing countries there are clear signs of a changed approach, with comprehensive training proposals and defined means of transfer, for although the skills (technical education, industrial training. management development) are interrelated, each transfers in its own way.

The processes of transfer–technical education

Since education is the base-line it is logical to consider it first, and it is also easier; for these channels of transfer are now so deeply scored that diversion would be difficult, desirable or not.

They are three-streamed: the teaching stream, which brings in the expatriate, the counterpart stream, which introduces his local successor, and the link stream, which brings the overseas institution into a beneficial relationship with a developed institution of like pattern. Each discharges into a system which has probably been planned or developed with earlier assistance from the transferring country, for technical education has its own distinctive flavour, and an overseas system planned on one model is unlikely to seek its operators from another. If the assistance has been British, it will have comprised advice from an expert on specifics (course structure, equipment lists, examination patterns, specialist materials), or from a team (a ten-year programme and plan to meet defined needs for skilled manpower), or from an institutional group (the establishment of a Polytechnic). If wisdom has been shown each assignment will have been conducted in harness with local specialists, and in conformity with the unwritten rules for visiting firemen.

For example:

Plans

i No plan produced solely by outsiders is any good, however good it is.

ii No plan is any good unless the recipient thinks it is.

iii No recipient will think it is if cash is not in sight.

iv No plan should give greater prominence to capital expenditure than to recurrent; nor to cash than to transfer of skills.

Experts

v No expert will produce the goods, unless his terms of reference are right.

vi No expert is any good, unless his host believes so.

vii No host will believe so, if the expert's approach is wrong, and his personality uncongenial.

viii No expert is any good, unless he reports promptly and fully.

ix No report is any good unless it is implemented.

x No expert is any good, unless his professional recommendations are capable of financial, political and practical fulfilment.

xi No expert is any good . . . [1]

Projects

xii No project is any good which

- a distorts the general development of country, town or village
- b understates recurrent implications
- c overstrains capacity, in every sense
- d ties up funds for lengthy, unproductive periods.

xiii No project is any good, unless the beneficiary wants it.

xiv No beneficiary will want it, if someone else achieves the credit.

This transfer of wisdom should in due course lead to recruiting the skill carriers—the specialist teachers sought against job descriptions prepared by the overseas employer. An accurate job description is vital, for the skill transfer will only succeed to the extent that what is to be transferred is closely defined, and who is to transfer it carefully selected. If the job description is vague it will attract either a vague man, or a man who welcomes vagueness as the ideal métier in which to do his own thing. Both are equally dangerous. If the job description is perfect but the recruiters are imperfectly understanding about the idiosyncracies of the country, its people, its culture, its traditions, its politics—the list is endless—then the danger is that the wrong man with the right qualifications will be chosen. The best engineer in the world will be impotent—or even harmful—if he can't get on with his overseas fellows. Nor will wise recruiters award too much credit for previous overseas experience, preferring to balance the professionally tangible—is he qualified?—against the personally intangible—is he suitable? The qualities—not qualifications—that fit a man for the Borneo bush may be wholly irrelevant in Bahrain. There really is no such place as overseas . . .

Subsequent recommendations for appointment will be accompanied by full reports, on which the overseas authority will decide to take, or to reject; and in so deciding will remember that the scarcer the skill—and therefore the greater the need—the fewer the number of applicants, and the greater the competition for them. He will therefore respond quickly to the recruiters' recommendations—or lose out.

The man appointed will be briefed—professionally, administratively, politically, socially—and given (if the Uganda lesson has been absorbed) a limited

1 Delete this sentence.

contract. If he is the right man he will not want perpetuity anyway, for his prime motivation will be not idealism but self-interest—enlightened, of course; but the self-interest of his own development nevertheless. He will therefore be concerned to return to source within reasonable time, his prospects enhanced by wider experience and greater maturity.

On arrival he will seek to learn about the place and the people, rather than to sell himself. He must understand that it is he and his skills that must adapt to the locals—not vice versa. If he has been overseas before, he will do well not to plug it; there is nothing worse than a Fijiwi—the man who starts every sentence, 'in Fiji we . . . .'

His influence will be reflected in the progress of his counterpart. If the counterpart is in post, as a junior member of staff, the task is clear, if difficult. If he is not, then he has to be found—this year or next. How he is trained will depend on where he is found, and how far he is qualified, and how many of him there are; for the only rule in counterpart training is that one is never enough. That is why counterpart training can be so frustrating, with the obvious successor defecting to the local board of the multinational, or returning from a highly structured programme in the UK to join the Central Bank. These things happen. They do not justify relaxation on counterpart training, which complements limited expatriate contracts—one is the reason for the other.

Staff development for counterparts, in post or in the pipeline, can be carried out locally, or overseas. Both are best—in conjunction; overseas through courses carried out by British technical teacher trainers grouped and despatched for the purpose, in Britain through advanced instruction to programmes individually tailored by the same training group. UK resources in technical education are so wide and various that most needs can be met, but matching the resource to the need demands knowledge of both ends, which is scarce. The establishment of a government agency for the purpose—TETOC—is a help; so is the link.

This is simply a twinning device linking in mutual self-interest an institution in Britain with a like institution in a developing country. The trick is in the matching, which can emerge through an agency such as TETOC; through technical assistance and overseas teaching assignments; through overseas nationals UK-trained. But it should not emerge through nomenclature. Many an overseas university is more akin to a UK polytechnic than to Cambridge or Keele.

Links used to be formal—metropolitan-inspired, controlled and politically slanted. The head of the UK institution was normally a governor of the linked institution, though never the converse. Such links were early casualties of independence. Today's link is informal, unscripted, embracing staff and student exchanges and secondments, research co-operation, planning assistance, staff and institutional development, and professional interchange. Essentially it is an *ad hoc* matching of an overseas need, transient and often non-specific, to a corporate British resource. There is no concept of conferred favour—the British institution will not prepare some Utopian compound of paternalism and charity, but an exchange which will develop its own staff and capacity.

Industrial training

Here the means of transferring skills are less readily identifiable, because the institutional element is generally removed. Practical experience propels the trainee from the classroom to the real world. Since his real world means that part of it in which he will work, industrial training is best carried out there. To this process the developed country will contribute assistance in analysing needs and resources; planning and developing training schemes; organising the training of instructors; and identifying specialists and resources for further assistance. If this contribution includes staff, the approach will parallel that in technical education. But the method may not, because staff are more likely to be obtained by secondment—from industrial training boards or company/industry-based training centres—than by recruitment. This device is a variant on the link, with a training board or the like contracting to undertake the task, and deciding who should do it, as opposed to individual contraction through advertisement. This gives flexible access to a whole range of resources and back-up, as opposed to the isolated skills of one individual; and provides a continuing source of *ad hoc* assistance after individuals disappear from the scene.

Local, on-the-job training may be ideal—but developing countries are not in the ideal stage. Transferring skills through practical training and experience presupposes the existence of facilities for practical training and experience, and the higher the skill required, the rarer are those facilities on site. Equally, the more the higher skills are imparted, though not on-site, the greater becomes the capability of providing them on site; for if not, the transfer has failed in its purpose. If it is difficult—and it is—to draw a line *below* which skills should transfer on site, and *above* which elsewhere, it is equally difficult to judge within any given time-scale the moment or moments when the line should be relocated—upwards. Yet that relocation is vital to the process. Meantime training has to be arranged in the developed world to enable technicians, technologists, craft instructors and supervisors to complement their professional, academic or trade qualifications with the practical experience their own world cannot yet provide. The trick again is in the matching of need to resource, but it is more than a game of snap; one tailor-made training programme generally involves four to five attachments, individual placement, and individual monitoring, because institutional patterns do not apply. There is no set syllabus, defined curriculum, unchanging tutors; and things can go very wrong without trainers realising it, and with trainees reluctant to remonstrate—but bitter and disillusioned on return home. And that too has its multiplier effect.

Current experience suggests that British industry readily accepts overseas trainees, provided (unless it has its own contrary reasons) that someone else pays. The economic climate may lessen this willingness, but perhaps not significantly; for trade advantages are clear. Machines and equipment on which people train will influence subsequent demand. There is more to informed matching than transfer of skills.

The calibre of the trainee, and the relevance of his training, conditions the

end product. When overseas governments meet the cost, whether from their own resources or from aid funds (which they regard as the same thing) they select the individual and prescribe the training. Selection is normally handled by Ministries of Education, which tend to favour academic courses at the expense of practical training; it can reflect nepotism, long service and good conduct awards, the accolade of doctorates and diplomas, and basic misunderstanding. Sometimes the training need will be defined by those unfamiliar with its nature or purpose, causing general embarrassment when the trainee arrives. There is no panacea for this; nor are the ills confined to industrial training, though they tend to be because the context is practical training rather than an academic course. (There are basic qualifications for entry to the latter; the former is rarely so clear-cut.) The remedy lies in the developing country, a situation which underlines the desirability of those who arrange training in Britain to be close to those who seek it.

Management development

Management development did not figure in the aid programme until 1972, and has yet to impress aid managers, who lump it in with 'education' and equate it with business schools. Nevertheless such experience as there has been indicates a growing demand, in public and private sector alike, for the transfer of management capabilities and skills, at all levels.

Mutatis mutandis the means of transferring technical education and industrial training skills apply equally to management development—institutionally and practically, and at both ends. But there are added factors, because the higher one goes, the more the skills change from the technical and specific to the conceptual and general; from those of the steel-mill operator to those of the foundry manager.

For steel-mill operating is basically the same, in Bangladesh or Britain; but the required skills of the foundry manager will be effective only to the extent that they are tempered by local factors—culture, politics, climate, traditions, raw materials, physical make-up, living and working standards—and by the developmental time-span, reflected by the extent of rapid promotion, qualifications without experience, skills without training (which can be a plus; there were fine West Indian craftsmen and mechanics long before a technical school first opened its Caribbean doors, and East African Asians succeeded in commerce and industry oblivious of the London Business School).

This setting militates against wholesale transplant of management development methods from one country to another, the more so when the exporter is highly developed. It is inimical to the academic approach, which tends to equate management training with courses and seminars. It opposes the removal of a manager from the precise set of factors that test and develop his skills. Outside learning is valuable only to the extent that it can be applied, for the purpose of management development is to enable the individual, group, company, or country to survive; and to know when, and by whom or by what, it is being

diverted from that purpose. The means of management development—teachers, counterparts, links, courses, attachments—broadly parallel those used in technical education and industrial training, but with a critical difference: that management development must be related not only to the job, but to the company or project in which it will be undertaken; and training conducted outside that environment must reflect those particular needs.

The basic concern in management development is closing the gap between theory and practice, research and relevance, thought and action, aspiration and achievement. Wholesale transplant of management and of management development methods from one country to another rarely succeeds; nor does focusing on teaching rather than on learning to run things better. Because such learning is self-learning, the teacher's role is limited to designing situations in which managers can reflect and order their experience, and themselves unearth the relevant lessons. The task of the management trainer in the developing world is to help managers to tackle their own problems as they see them, and to reach goals that they themselves set. Hence the difference between means of transferring management skills, and those involved in technical education and industrial training, with which they must nevertheless be closely linked.

The relevance of transfer

Every transfer reflects somebody's judgement that the skill involved is necessary or desirable or beneficial—and appropriate. It is not always easy to identify the somebody, or the precise activity, institution or person who is to benefit. Ostensibly there is no difficulty—those who ask for the skill presumably make the judgement, those nominated to receive it presumably are the beneficiaries. But the judgement may be unsound, because—for example—it presupposes an unattainable rate of economic growth, or an unviable industrial development, or an expansion of educational facilities too ambitious for the country's revenues to sustain. So aid donors seek to relate those judgements to economic surveys and manpower projections; but they too involve judgements, and so the round continues, with the judgement of the developing country being tested against the judgement of the developed. And either judgement can be faulty.

This judgement of what is relevant is inseparable from the judgement of for whom. Some hold that over a wide range of skills this latter needs no testing. In a typically crisp dictum Sir Arthur Lewis has pronounced that in the developing world 'it is impossible to train too many technicians, engineers or scientists, though easy to have a surplus of arts graduates'[1]. Thus he contends that any transfer of technical, engineering or scientific skills is by definition appropriate — 'No country in the world has a surplus of engineers. Most of the jobs which graduates in the humanities fill could be done equally well by engineers or scientists; but what engineers or scientists do cannot be done equally well by humanities graduates.'

1 W. Arthur Lewis *Development Planning,* London, Allen & Unwin, 1966.

It is realistic to assume that the lower the skill, the less it is necessary to establish specific relevance to its transfer. So the relevance of transferred technical education skills need not be specific – technical education is a Good Thing. Industrial training needs to be more pragmatically planned–industrial training related to the practical needs of local industry, and to international standards, is a Good Thing. But management development is a minefield. Each step to the specific objectives of individual, group, company and country must be charted. This is job-relation, rather than job-creation; and relation to the wrong job (or wrong relation to the right job) can endanger the whole process of job-creation in the particular environment. The pattern suggests that the rarer the skill, the closer the tailoring should be. Get it right at the top, and the rest will slot in.

The degree of transfer

There are no statistics about the extent of skill transference between Britain and the developing world. The aid programme supports 13,000 British experts overseas, 5,000 directly engaged in education and training; and 14,000 overseas students and trainees in Britain. But there are thousands more, sponsored by themselves, their governments, by commerce and industry, for whom there are neither statistics nor central knowledge. Many it seems never return overseas; all represent an unquantified call on British resources. It would be tidy to know its extent; but any other advantage is obscure, unless it appears that demand–as opposed to need–cannot be met. But demand at present appears to be limited by finance and people, rather than by lack of training places.

There is no evidence either of a shortage of British specialists prepared to go overseas short-term, although climate, housing, politics and remuneration, coupled with scarcity in particular fields, always qualify response. It is clear that fewer people now seek careers overseas; and that the days of the freelance specialist are over. Today's preference is for specialists backed by a corporate and continuing resource. In the public sector counterpart training remains the weakest link in skill transference–quantitatively rather than qualitatively. The need to train not one but X counterparts for every expatriate specialist not in isolation, but in the team context, is generally unsatisfied, and monitoring and follow-up insufficient. Thus over a wide field the relevance, adequacy and results of what has been transferred remain inadequately tested.

Conclusion

This paper has brooded on transfers and people and channels, but scarcely on skills. Those who purvey them have produced a wealth of inscribed wisdom about techniques and systems–this is no more than a view from their bridge, and at that a blinkered one; for the vantage point is limited to aid and the public

sector. The degree of wider relevance is uncertain, because the problems of skill transfer admit of no school solution. But there may nevertheless be a few common ground rules; this paper has sought only to suggest what the odd one might be.

Chapter 5 Reports of the Discussion Groups

Group 1 Criteria affecting the location of activity of UK firms in developing countries

Chairman: Professor John Dunning, University of Reading

The Group concentrated on the choice facing UK firms in the setting up or extension of productive activities in one or more developing countries. It did not give detailed thought to the wider question of the location of activity between developed and developing countries, which might be affected, for example, by the Arab states developing downstream activities in the petro-chemicals or petro-engineering industries.

While recognising that many factors influence locational choices, the Group's discussion focussed on three types:

i) those specific to the particular investing firm or industry in question, for example the nature of the product, the factor intensity of the production process, or historical factors
ii) those specific to particular developing countries or the UK
iii) the strategy of the UK firm towards its foreign operations, for example whether its affiliates are regarded as autonomous, self-contained units or as part of an integrated network or networks.

The importance of these variables was discussed in relation to three main types of activity by UK firms in manufacturing and resource-based sectors (service industries were not considered).

The first group of activities were those geared to the primary industries and first-stage processing of minerals, raw materials and foodstuffs. Here the locational choice was constrained by the availability of resources, and though there may be a choice of location between particular developing countries, between the UK and developing countries there was little such choice. Where the choice may be significant is in subcontracting and/or downstream operations, for example secondary processing and fabricating. Usually, different inputs are involved in this area, eg skilled or semi-skilled industrial labour, plentiful energy supplies.

Secondly, there is activity geared to the local markets of ldcs – primarily *import substituting* investment, often encouraged by host countries, by the imposition of import controls on the one hand and by tax and other investment incentives on the other. Though the exact point at which the decision is taken to relocate production from the home country to the developing country may be affected by such considerations as differential production and transfer costs from the two locations, in practice, the real choice often lies between producing

in the developing country or losing a market altogether—either to other foreign competitors or to indigenous producers. The Group discussed the product cycle theory of international investment, and concluded that this second type of activity of UK firms was the one most marked in the developing countries. Some members of the Group thought that at a macro-level firms had more flexibility of choice in their product marketing strategy, which in turn could affect their locational requirements between developing countries and the UK.

Thirdly, there is activity geared to the export of manufactured goods from the developing countries – back to the UK or to other industrialised markets, and to other markets outside the country of investment: for example in some branches of the electronic, textiles and vehicles industries where international product or process specialisation is possible. Although the Group thought there was very little UK investment of this kind, it agreed that (at a micro-level) this was where the real choice of location lay. However it emphasised the long-term instability of this kind of investment from the viewpoint of the developing country.

The factors tending to facilitate the third type of activity are: first and foremost, a stable political and economic environment with fair treatment of foreign firms; an abundant supply of low-cost and good quality labour (often as it turns out of a non-unionised kind); an adequate social and commercial infrastructure; intense competition in the domestic market, often from foreign imports (as in the cases of Rollei and Phillips opting to manufacture cameras and transistor radios in the Far East to combat Japanese competition in Taiwan, Hong Kong, South Korea, etc); regional integration among developing countries making economies of scale viable (for example, Unilever and Allied Breweries in East Africa) – conversely when regional integration collapses, the consequences may be disastrous, as with the Central American Common Market; a situation where a particular developing country can be used as a trade route to countries which may not be served from the home market – as in the case of many UK companies in India selling to the USSR; and tax and other incentives such as export rebates given by developing countries. The latter were not considered to affect markedly the import substituting ventures, (where the decision was between investing and losing the market), but were thought more significant in the case of export-generating investments. But it should be noted that the main beneficiaries of such concessions were often the governments of the home countries, at least when the profits were remitted. Finally, and perhaps of greatest long-term significance, the market size and potential growth, coupled with non-tariff impediments to servicing the market by exports.

Certain other factors were identified as dissuading companies from locating their plants in developing countries. First of all there is UK government policy, such as the Bank of England's requirement for a very short payback period on the capital exported, and its taxation policies towards earnings on foreign investment.

Secondly, there is local bureaucracy and red tape, causing long delays in planning approval. There are also restrictions on the actions of investing firms, on the growth in their production capacity, on export allocations, on servicing, on payments for R & D, on access to capital markets, on dividend remission and so on. A very significant deterrent is uncertainty about the future economic and political climate in the developing country and finally—though not evident in the UK—the pressures from organised labour against offshore purchasing.

Pre-production and post-production activities

The Group also considered the location of R & D activities and concluded that while UK firms may not always be undertaking the amount or direction of R & D which the developing countries considered desirable from a 'social' viewpoint, there was evidence that in the first two types of activity classified above and in the larger developing countries UK firms were engaging in both research and development. Unilever and Brooke Bond were examples quoted.

Mention was also made of the location of the post-production activity of firms. Some to do with marketing – eg advertising or market research—might be concentrated in the headquarters of companies, while others—such as wholesaling, retailing and warehousing and consumer research of local markets—tended to be decentralised. Again much depended on the particular marketing characteristics and needs of the local customers. The United Africa Company was perhaps the best known example of a UK company heavily involved in post-production activities.

The future

More generally, recent and likely future changes in the world economic order were thought to be a powerful influence on macro-economic factors influencing the choice of location. The realignment of currency rates has affected the profitability of exploiting foreign markets by US, German and Japanese firms by exports as compared with foreign production. Certain environmental controls (against pollution) or safety requirements in production, by some developed countries, could encourage an exodus of firms to countries less demanding on these counts. Part of the huge funds available to the Arab oil producers might find its way to developing countries helping indigenous industries at the expense of *both* other developing countries and developed countries. Any movement towards international parity in wage rates, fostered by the trade union movement, or the introduction of free collective bargaining in some of the developing countries particularly attractive to foreign investors, might completely alter the balance of locational advantage. Any changes in the policies of developed countries on importing manufactured goods from the developing countries, eg new preference schemes, and for the extension of free trade zones (as in Egypt, Salvador and Santa Cruz in India) may have a similar effect, as would any changes

in the balance between economic nationalism and economic interdependence. The Group concluded that these changes in the world economic environment, much more than the strategy of UK multinationals, were likely to be the dominant feature affecting the locational decisions of UK firms in the foreseeable future.

Group 2 Implications for employment in Britain of investment abroad

Chairman: Peter Prynn, Economic Associates Ltd

The Group used as a basic line of approach a product life cycle model, which distinguishes the following four stages:

i) Production for domestic consumption
ii) Production also for export, from domestic factories
iii) Supply to export markets, by factories located in the overseas countries in which goods are being sold
iv) Production from these foreign factories for export back to the mother country.

Although the fourth stage had been reached by many US companies to an extent that was causing grave concern in the labour movement in that country, it is an extremely rare phenomenon in British business. No single satisfactory explanation for this emerged from the Group's discussion.

In considering further this four-stage pattern two ways were distinguished in which investment overseas could affect British employment: firstly, by producing goods competing against British exports and secondly, by providing goods to sell directly in this country as imports competing with domestic production.

Against these sorts of effect the example of Rollei (the German camera manufacturer) was examined at some length. This company had experienced great difficulties in the world market because of very fierce competition principally from Japanese sources. It decided to close its main German manufacturing plant and relocate in Singapore. Since then its success has been phenomenal and although the original German closure threw 1,500 men out of work, it now employs 13,000 in Singapore *and*—which is the point of the example—3,000 in Germany working on design, technical production problems and so on.

However, these 3,000 jobs were different in character from the 1,500 which had been terminated earlier and there were substantial structural problems of adjustment.

The theme of adjustment was pursued by several members of the Group who pointed out that the title of the discussion was somewhat defensive. Rather one ought to welcome (taking a narrowly British-based view) the opportunity to export some of the lower productivity jobs, allowing the resources released to concentrate in higher productivity work. The point was also made that in any case international trade patterns were being realigned, with advantage being

taken of lower-cost areas throughout the world. Britain could not escape from this pattern except by becoming increasingly and unacceptably protectionist. It should welcome the change and do its best to accommodate it with the minimum of hardship during the period of adjustment. It was pointed out that, in some respects, the UK is a developing country within the terms of the model with stage iii) of the product life cycle model exemplified by Japanese television sets and stage iv) by the production of Chrysler cars.

The question was raised as to how this phenomenon is dealt with in the European countries; the example of Scandinavia was quoted where management and unions confer together about the exporting of certain functions to lower-cost centres, and displaced workers are retrained for high productivity functions. Evidence was presented of a similar process in the UK.

Finally the Group discussed the question of whether it may be more advantageous for developed countries to liberalise their trade, allow the manufactures of developing countries to enter more freely and compensate the domestic industries disadvantageously affected by paying them adjustment assistance out of funds previously destined for aid. In general the Group was firmly against this. It was felt that a strong case could be made for adjustment assistance *in addition* to overseas aid but that it could never be a substitute. Also, that if a company exported some process to a lower-cost centre, then it should be responsible for the retraining and relocation of its displaced workers.

Group 3 Choice, appropriateness and cost of technology which British firms can provide

Chairman: James Pickett, David Livingstone Institute of Overseas Development Studies, University of Strathclyde

Inevitably, discussion began with the meaning of 'appropriateness' since some understanding of, or agreement on, this was needed to inform consideration of choice and cost. A working definition was tabled which saw an appropriate technology as being economically efficient, employment-creating and favourable to a more equal income distribution than that now prevailing in developing countries. The meaning of economic efficiency was in turn clarified. Depending on whether capital was relatively plentiful or in short supply, the measure of the efficiency of a project—it was suggested—would either be net present value at a given discount rate or the internal rate of return. It was further noted that the pertinent calculations could be made at either market or social prices.

Such a brief (possibly over-simplified) definition was bound to provoke controversy and raise additional questions. Among the more important results to emerge from discussion of the definition were:

(a) agreement on the fact that economic efficiency was generally important in poor countires, so that there should be some presumption against possibly inefficient make-work programmes;

(b) the suggestion that:

(i) developing countries should themselves decide what is appropriate, but preferably not solely on the basis of the sales catalogues of developed country capital-goods manufacturers—particularly since these might be similar across firms with respect to technology;

(ii) since developing countries differ in their economic characteristics, then so should technology choices in the light of associated differences in relative factor prices;

(iii) the choice of technology could be complicated by conflict between growth and employment objectives. It was recognised that it was impossible for the Group fully to explore this complex question in the time at its disposal. Moreover, some at least among the economists were sceptical concerning the possibility of widespread conflict. It was also pointed out that, at the project level, the conflict need not be sharp where it does exist—so that most people might willingly resolve it in favour of employment;

(iv) since machines are built to last, labour-intensive technologies would not be appropriate if a predictable change in labour attitudes—eg towards manual cane-cutting and cane-loading in the sugar industry—would cause them to become 'useless' well within their working lives; and

(v) the method of financing economic activity and the 'size' of capital goods suppliers could influence both technology choice and/or availability. Financing was thought to be particularly important for small entrepreneurs—who might be more inclined than larger businessmen to adopt technologies appropriate to local conditions, but who might find difficulty in obtaining funds from 'orthodox' sources. It was thought that the smaller makers of capital goods in developed countries would be more flexible in the range of equipment they would be willing to produce than larger manufacturers.

Many of the questions discussed by the Group were illuminated by a protracted consideraton of the Mumias case study, the availability of which contributed greatly to the deliberations of the Group (as indeed it did to those of the Seminar). In this regard, it was suggested that sugar factories—precisely because they were (as things stood) generically capital-intensive—raised interesting prospects for employment. Moreover, this was so notwithstanding the attractions of the argument that appropriate product choice was more important than appropriate technology choice. Thus, it was pointed out that a careful choice of economically efficient technology in the establishment of a large shoe factory (which would be generically labour-intensive anyway) might increase the labour force from 900 to 1,000. Against this, if it were possible efficiently to use the open-pan sulphitation technique rather than the modern vacuum-pan sugar process, the difference in the labour force could be as great as that between 300 and 13,000.

Not surprisingly, this latter suggestion, which came from academic sources, met with business scepticism. Practitioners found it difficult to imagine how such apparently cumbersome processes could ever be profitable. Related to this, they (and others) thought that the management and overhead costs associated with vast labour forces would be prohibitive, and that management problems would be inordinately demanding. It was conceded that the figure of 13,000 was used for dramatic effect, and it was explained that this was the labour force required if the most labour-intensive methods possible were used to produce a large annual sugar output in Ethiopian and Ghanaian conditions.

Nevertheless, it was argued that academic-type research relating to India, Ethiopia and Ghana suggested that the open-pan sulphitation technique was economically more 'robust' than might have been expected (so that purposive research and development effort on it might pay handsome dividends). The general point this led to was that the search for appropriate technologies should embrace as wide a range of alternatives as possible. In this regard it was noted that even if the search in sugar were confined to variants of the modern vacuum-pan process, the number of these to be considered could be quite large. There was, further, some reason to believe that profitability varied much less across alternative technologies than did employment. Thus there was some chance that employment could be significantly expanded with relatively little sacrifice in profit.

It was recognised that academic-type research resulted in paper findings which required proving in practice before they would be convincing. In the context of the Group and the Seminar, however, they represented a basis for fruitful dialogue between businessmen and academics, and the beginning of such a dialogue was an encouraging feature of the Group's work.

In the light of the sugar and more general discussion, the Group reached agreement on a number of items which should be included in any list of important elements in technology choice and on some recommendations flowing from this. Specifically, it was recognised that:

i) there was a need for knowledge of a wider range of technologies for use in developing countries than now existed, and that this should be obtained from more comprehensive search than is usual among existing techniques and from purposive research and development;

ii) there was a need to place relevant information in the hands of planning officials and other decision-takers involved in the choice of developing country technology;

iii) it was unreasonable to expect private firms in developed countries to supply machinery not made by them or known to their technologists. It was suggested that some of the machinery which might be associated with a wide choice of technology could not be efficiently made in the UK—and small pumps were instanced in this regard.

The Group agreed that relevant action should be forthcoming in the public and private sectors. In the public sector, it was felt that national and international aid agencies should place greater emphasis than at present on:

i) the establishment of technology data banks which would enable economic comparison to be made among alternatives. It was recognised that this would be a large undertaking if it were to be of serious help to developing countries. It would, for example, require considerable sensitivity analysis for each technology if it were to meet the needs of a large number of developing countries. Given this it was thought that the bank or banks should be built up on a product-by-product basis;
ii) support for research and development which would increase the range of technologies that could sensibly be considered;
iii) the possibility of purchasing patent rights for machinery and processes that seem particularly useful to developing countries so that the machines and processes could be made freely available to developing countries on request;
iv) the financing of pilot factories in willing developing countries which would help 'prove' the viability of appropriate technologies unearthed in the course of present and future searches.

Private firms, particularly those in the UK, should be enjoined:

i) to consider a wider range of alternative technologies (at least from within their own knowledge) than at present when getting involved in developing country activities;
ii) to participate in the purposive research and development mentioned above, even if this required commercial fees being met by an agency;
iii) noting the example of Barclay's Bank, which devotes 1% of profits to a development fund which finances developing country projects, to contribute financially to the costs of widening the range of technologies;
iv) to bear patiently with academic and other research groups working in this area and to provide such persons with full information.

Group 4 The wider perspective of British business in the transfer of management skills and expertise

Chairman: Stephen Quigley, IBM United Kingdom Ltd

The Group first assumed that no transfer either of management skills or of any other form of assistance to a developing country takes place without that country's consent and invitation. It also made a distinction between the motives of 'business as usual', ie short-term benefit, and social responsibility, ie the long-term benefits to British business of transfer and the development of new markets. This distinction is not hard and fast as short-term business interests can have a 'social responsibility aspect' and again the long-term benefits

to British business can occasionally have short-term market benefits.

Four principal means of transfer were identified:

i) The development of management in an overseas subsidiary as part of a company's standard executive development programme. This can have a spin-off in the development of awareness in overseas management of the social benefits of assisting local suppliers.

ii) The replacement of expatriate management by indigenous management. The Group noted that this replacement was easiest to implement where it was part of the initial strategy, eg as in the Bookers case study, and more difficult where the pressure to indigenise was external and unwelcome and where expatriate management was deeply rooted.

iii) The management agency operation of the Booker McConnell type. The group noted Bookers achieved a good relationship both with the host government and with the rural community: a relationship that would result in further business for the company either in the same country or in other countries with similar conditions.

iv) The management services operation of the kind that some companies, eg Unilever and Burmah Oil, already run to serve their own business, such as the setting up of a plant overseas involving the training up of local management. British companies that have this operation could be persuaded to offer it to governments or to other overseas-based companies on a commercial basis.

It was the Group's belief that British business is becoming more sensitive to its wider responsibilities to society both within Britain and within the world in general and the developing countries in particular. The Group hesitated to quantify this sensitivity as it had representatives of only a few companies.

The Group considered the following three mechanisms for both stimulating responsibility of this kind and assisting in the transfer of management skills:

i) The setting up of a committee of interested companies by, for example, the CBI to provide a lobby in British industry for this attitude. One way in which the temperature could be tested of the current reaction of British business to appeals for assistance would be for an agency such as TETOC to obtain requests for assistance from developing countries and supply them to such a committee.

ii) The principal means of *transfer* considered by the Group was secondment to either a company or business school. The Group had reservations about the usefulness of academic management education in developing countries, given its tendency to become too theoretical: a criticism frequently levelled still at business schools in this country. There could be benefits to the sending company in terms of the personal development of the manager seconded. There could be interest in this type of secondment among middle managers in British industry who have perhaps reached the peak of their achievement while remaining young enough to be effective and prepared to adapt to

overseas conditions. There could be a business benefit to the company from the personal and business contacts made overseas.

It was noted that the objectives of private industry which would be the main source of such secondments were not necessarily those of industrial concerns in developing countries, the largest of which were often in the public sector and which did not have the overriding concern to make a profit. There was a feeling in the Group however that efficient management of resources was a skill required in both private and public enterprises.

iii) The provision of training places, that is beyond the provision already made by private industry. The resources required to monitor effectively the training of overseas managers or potential managers are scarce and some reduction would be involved in a company's efficiency/profitability if there were a significant increase (ie of two or three orders of magnitude) in training provision overseas.

The Group noted that, in line with the theme of the Seminar, there was a need to transfer those types of management skills that were appropriate to the development of labour-intensive industry overseas. However, those concerns in Britain most likely both to have overseas subsidiaries or to be prepared to provide assistance with management development in developing countries, would tend to be in capital-intensive industries.

It was felt that small business management skills could be most appropriate to the needs of developing countries but small business concerns in Britain would have little spare capacity in terms of the ability to release a manager for even a short time nor would they have the same experience as larger concerns in supervising the training of overseas managers on attachment. However, it was noted that following the Bolton report,[1] educational institutions– such as regional management centres based on polytechnics–were offering around the country a service to small businesses. This service could be a means of developing overseas managers or management trainees. A manager from a capital-intensive industry could, within a short period of training, become competent to provide additional teaching resources for this service.

1 *Report of the Committee of Enquiry on Small Firms.* Command 4811. HMSO, London, 1971

Appendix: List of Participants

Dr M B Athreya, *Senior Lecturer Business Policy, London Graduate School of Business Studies*

Mr P H Balmer, *Controller of Manpower (Overseas), The De La Rue Company Ltd*

Mr L D A Baron, *Executive Director, Commonwealth Sugar Exporters Association*

Mr William Bell CMG MBE, *Director General, Council for Technical Education and Training for Overseas Countries*

Mr W P Blair, *Executive Councillor, Electrical, Electronic, Telecommunication and Plumbing Union*

Mrs E H Boothroyd, *Under Secretary Development, Overseas Finance, H M Treasury*

Mr J R Bunting CBE, *Adviser on Education, The British Council*

Mr J J Butler, *The Economist Intelligence Unit*

Mr D Cornfoot, *Manager Personnel Operations, Africa & Middle East Area, IBM Europe*

Professor J H Dunning, *Department of Economics, Reading University*

Mr F Ellis, *Research Officer, Institute of Development Studies, Sussex*

Mr J J M Exeter, *Research Officer, Institute of Development Studies, Sussex*

Mr M L O Faber, *Commonwealth Secretariat*

Mr B J A Hargreaves, *Director of Public Affairs, IBM United Kingdom Ltd*

Mr D J Harrison, *Employment Relations Officer Overseas, Burmah Oil Trading*

Mr J A Haynes, *Chairman, Bookers Sugar, Booker McConnell Ltd*

Mr A Hine, *Overseas Personnel Manager for Telecommunications, The Plessey Co Ltd*

Miss Edith Hodgkinson, *Overseas Development Institute*

Mr G H Holtham, *Research Officer, Overseas Development Institute*

Dr R M Honavar, *Minister for Economics, Indian High Commission, London*

Mr J J Hope, *Administrative Coordinator Western Hemisphere, Associated Portland Cement Group Ltd*

Mr J B Ingram, *Assistant Secretary, Commercial Relations & Exports Division, Department of Trade*

Dr Richard Jolly, *Director, Institute of Development Studies, Sussex*

Mr A G Kemp, *Department of Political Economy, Institute for the Study of Sparsely Populated Areas, University of Aberdeen*

Mr L Kemp, *Industrial Training, TETOC*

Mr J Filochowski, *Catholic Institute for International Relations*

Mr B C E Kogan, *Management Development, TETOC*

Mr S Lall, *Institute of Economics and Statistics, Oxford*

Mr J Leech, *Commonwealth Development Corporation*

Miss L G Lewis, *Secretary, Barclays Bank International Development Fund*
Professor A I MacBean, *Department of Economics, University of Lancaster*
Mr G McRobie, *Director, Intermediate Technology Development Group*
Mr F Martin, *Overseas Committee, Unilever Ltd*
Mr J H Maud, *Nuffield College, Oxford – seconded from the Foreign & Commonwealth Office*
Mr R Miles, *Head of Information Department, Ministry of Overseas Development*
Mr B A N Mudho, *First Secretary, Kenya High Commission, London*
Mr R K O'Keefe, *Secretary to Executive Committee, Booker McConnell Ltd*
Mr D F Pearl CBE, *Managing Director, Commonwealth Development Finance Company*
Mr R M Peet, *Economic Adviser, Standard & Chartered Banking Group Ltd*
Mr J Pickett, *Director, David Livingstone Institute of Overseas Development*
Mr M Popovic, *Acting Director, UN Information Centre*
Mr Peter Prynn, *Economic Associates Ltd*
Mr S Quigley, *Staff Manager, Scientific Centre, IBM United Kingdom Ltd*
Mrs P A Reid, *Public Affairs Secretary, IBM United Kingdom Ltd*
Mr R S Ridgwell, *Private Investments & Consultancies, Ministry of Overseas Development*
Professor E A G Robinson CMG OBE, *Emeritus Professor of Economics, University of Cambridge*
Mr N Rigby, *Executive Director, The Spillers Company Ltd*
Mr D Sandberg, *Second Secretary Economics, US Embassy*
Mr A K Sengupta, *Visiting Fellow, Manchester Business School*
Mr R Sharp, *Controller of Public Affairs, Oxfam*
Mr Q F Siddiqui, *Chief Economics Adviser, Trade & Finance Division, Commonwealth Secretariat*
Mr M Stewart, *Reader in Political Economy, University College, London*
Mr C Stockwell, *Senior Consultant, Matrix*
Mr P Streeten, *Warden, Queen Elizabeth House, Oxford*
Miss P Taylor, *Divisional Officer, Association of Scientific, Technical and Managerial Staffs*
Mr H Terrell, *International Relations Division, Overseas Directorate, Confederation of British Industry*
Mr L Turner, *Royal Institute of International Affairs*
Mr S V Spencer, *Head of Overseas Department, The Industrial Society*
Mr G A Wade, *Public Affairs Adviser, IBM United Kingdom Ltd*
Miss S Wells, *Chairman, World Development Movement*
Mr B W Wheeler, *International Management Adviser, British Institute of Management*
Mr J R M Whitehorn, *Deputy Director General, Confederation of British Industry*
Sir Geoffrey Wilson, *Chairman, Race Relations Board*
Mr R N Wood, *Director, Overseas Development Institute*

Overseas Development Institute

The Overseas Development Institute (ODI) is an independent non-Government body aiming to promote wise action in the field of overseas development. It was set up in 1960 and is financed by donations from British business and by grants from British and American foundations and other sources. Its policies are determined by its Council.

The functions of the Institute are:

1 to provide a centre for research in development issues and problems, and to conduct studies of its own;

2 to be a forum for the exchange of views and information among those, in Britain and abroad, who are directly concerned with overseas development in business, in government, and in other organisations;

3 to keep the urgency of development issues and problems before the public and the responsible authorities.

Some recent publications by ODI

A Hand Worth Playing
The Stake of Developing Countries in the International Trade and Monetary Negotiations, Kathryn Morton (rapporteur). Report of the ODI study group. 1974. 60 pages. £1.00.

ODI Review
Twice-yearly analysis of issues in the political and economic relationship between the developed and the developing world. Published in March/April and September/October. Single copy: £2.20.

Subscription rates:

one-year	£4.00
three-year	£8.00
one-year student rate	£2.00

ODI European Series

Farmers and Foreigners
Impact of the Common Agricultural Policy on the Associates and Associables. Frank Ellis, John Marsh and Christopher Ritson. (Also available in French as *L'Agriculture en question)* 1973. 86 pages. £1.00.

Europe's Chosen Few
Policy and Practice of the EEC Aid Programme. David Jones.
(Also available in French as *Les Elus de l'Europe*) 1973.
100 pages. £1.00.

The Seven Outside
Commonwealth Asia's Trade with the Enlarged EEC. Peter Tulloch.
1973. 68 pages, £1.00.

Britain, the EEC and the Third World
Report of an international conference jointly sponsored by the Society for International Development and ODI, April 1971. 1973 (second edition).
92 pages. £1.50.

Available from booksellers or direct from:–

Research Publications Services Ltd.,
Victoria Hall, East Greenwich,
London SE10 0RF
Tel: 01-858 1717