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# Employment creation through regional development: recent experience in Sri Lanka

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## Introduction

As in many developing countries, unemployment and underemployment in Sri Lanka have remained major problem areas for several decades. When the present Government came to power in 1970 unemployment had reached such proportions that it called for an urgent reappraisal of the country's development policies. The scarcity of capital on the one hand, and the acute shortage of foreign exchange on the other, made it clear that development of the modern large-scale industrial and agricultural sector based on capital-intensive technology offered little scope for easing the problem.[3] The need thus arose to give greater emphasis to evolving a pattern of development which made minimum demands on capital, utilised local raw materials and mobilised the country's most abundant resource, namely the labour force, to the greatest possible extent.

Further, it was evident that regional development should receive high priority in order to reduce the tendency of the rural unemployed to migrate to the towns and cities. There was thus an overwhelming case for setting up small-scale labour-intensive industrial and agricultural projects in the rural areas, based primarily on local resources.[4]

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[3] A useful illustration is provided by D. Jackson and H. A. Turner in " How to provide more employment in a labour-surplus economy ", in *International Labour Review*, Apr. 1973, p. 316: " If the ' modern ' sector [in a hypothetical country] provides 20 per cent of total employment and if the total labour force and its productivity are each growing by 2 per cent per annum, then merely to provide sufficient additional employment in the ' modern ' sector to avoid an increase in unemployment, the annual growth of output there would have to be 20 per cent." A similar illustration is provided by David Morawetz in " Employment implications of industrialisation in developing countries: a survey ", in *Economic Journal* (London), Sep. 1974, pp. 491-542.

[4] Government of Ceylon: *The Five Year Plan 1972-1976* (Colombo, Ministry of Planning and Employment, 1971), p. 14.

Programmes of rural development were not entirely new to Sri Lanka; such programmes had been implemented by several government departments during the preceding two or three decades, but with limited success. Their inability to forge ahead could be traced to two main factors. First, they were not fully integrated with the over-all development strategy of the country but were regarded as a kind of " social service " activity outside the main effort. Second, they failed to secure the active participation and interest of the mass of the people.

With the inauguration of the 1972-76 Five Year Plan, therefore, Divisional Development Councils (DDCs) were set up throughout the country, and for the first time a link was established between the central planning authority and the people. It thus became possible to formulate plans at grass-roots level and to develop small labour-intensive projects mainly based on local resources. Planning offices were set up in all districts (the principal administrative unit) to co-ordinate the work of the government agencies involved in development work. The staff to man these units was provided by the central planning authority, namely the Ministry of Planning and Economic Affairs, where a Regional Development Division was established in order to direct and monitor the entire programme.

## DDCs and their projects

A DDC may be conceived of as a decentralised unit of the central planning authority. Prior to reorganisation in mid-1975 a council was typically composed of government officials engaged in development work at regional level, representatives of voluntary organisations at regional level (such as agricultural productivity committees, multipurpose co-operative societies, rural development societies and youth organisations) and members of the National State Assembly (or Parliament) representing the electorate concerned. Appointments to DDCs were initiated by the Government Agent responsible for the district, and the chairman was usually an Assistant Government Agent. The membership of a council generally ranged between 20 and 40 persons. At the end of 1974 there were a total of 607 DDCs, the main functions of which were:

— preparation of a co-ordinated development programme for the area
— co-ordination of popular effort and government services for the implementation of programmes approved by the Government
— regular review of the implementation of government programmes within the area
— recommendation of corrective action where shortfalls had occurred.

DDCs were expected to sponsor small development projects which could be carried out by a co-operative type of organisation. These were designed to provide employment with the minimum use of capital and were based on local resources. The DDCs provided the fixed capital requirements in the form of grants and/or loans from the Ministry of Planning and Economic Affairs and

all the necessary assistance during the initial stages of the project. Once projects were ready to go into operation, they were handed over to multipurpose co-operatives or specialised co-operatives where appropriate.

In mid-1975 the entire programme was reorganised in the light of the experience gained.[1] Two important changes in structure were made. First, a DDC's area of operation was expanded to cover an entire parliamentary electoral district, which had the effect of reducing their number to 150—a more manageable figure from an administrative point of view. Second, the membership of each council was reduced to between 15 and 17, both the official element and local organisations still being represented. While at first sight the reform might appear to have reduced the popular basis of the councils, in fact it made them more businesslike in that they now consisted of a serious and committed group of persons as against the somewhat uninterested and disparate one that had usually emerged under the earlier arrangement.

Popular participation derives from the fact that all the members of a DDC either represent people's organisations or are in contact with the public. People are free to convey their proposals either through council members or, by prior arrangement, to present their ideas themselves at DDC meetings. Nor is participation confined to the submission of ideas for creating employment; they can also concern other areas of expenditure such as schools, hospitals, maternity homes, local post-offices, roads and irrigation. What is important is that the people have come to regard the DDC as *their* organisation, through which they can influence the nature, direction and size of government development expenditure.

In all this the local Member of Parliament plays a crucial role. During the 1975 reorganisation a deliberate attempt was made to politicise the programme by appointing the local MP or a government nominee as chairman of the DDC. The acceptance of political leadership of the development effort at the local level was a significant departure from previous practice in that hitherto the determining influence regarding priorities had been the government official. The change stems from the realisation, based on experience, that the local political leader is best aware of the people's needs and aspirations as well as of the area's resources and development potential. Perhaps most important of all, he is the person most qualified to harness popular support and give the necessary leadership to the development effort.

**Integration with planning**

At this point it will be useful to describe briefly the links between the DDCs and the planning authorities. Ideas for employment-generating projects are examined by Development Assistants attached to the DDCs, assisted where necessary by Planning Officers in the District Planning Office, which in turn is supervised by the Government Agent of the district. Once a project has been

[1] The Government has now decided to give legal status to the DDCs and the necessary legislation has been presented to Parliament.

formulated at the district level it is sent up to the Regional Development Division of the Ministry of Planning where, after scrutiny, it may be approved for implementation and incorporated in the Regional Plan. Funds are made available for fixed capital investment in the form of medium-term loans from the Government at low rates of interest. Working capital is provided through a bank which is also entrusted with the task of collecting the instalments repaying the government loan. Regular monitoring of the project is undertaken both by the District Planning Office and by the Regional Development Division. All the resources of this Division and of the District Planning Office are available to projects which for any reason show signs of faltering or of going off the rails.

**Organisation**

When the scheme was reorganised an important change was made in the method of implementing and managing projects. Experience had shown that multipurpose co-operative societies were oriented towards retail trading and had not the time, the inclination or the skills required for development activity. Equally, setting up a single co-operative society for each project was found to be burdensome and totally unjustified in the case of small projects which did not generate enough surplus to fund the hiring of indispensable staff such as a manager, a clerk or an extension officer. These problems were overcome by setting up one development co-operative society per electoral district, which now implements all DDC projects on its territory: in effect, each project functions as a branch of the development co-operative, and all participants in DDC projects are members of it.[1]

The most significant features of the projects implemented through these co-operatives are as follows:

*(a)* the means of production are commonly owned by the participants in each project;[2]

*(b)* management is in the hands of the members, who elect their representatives to the board of directors;

*(c)* in addition to their monthly remuneration, members are entitled to a share of the profits.

The form of organisation adopted for the management of DDC projects gives effect to one of the objectives set out in the Constitution of the Republic of Sri Lanka, namely " to develop co-operative forms of property ". It eliminates the distinction between management and workers, substituting self-management for the bureaucratic type prevalent in most state enterprises. Thus, an attempt is made to bring about a truly co-operative form of ownership in which the workers tangibly own and manage their enterprises. It is interesting to note that this arrangement may also be regarded as the exact opposite of a private

[1] Members are usually chosen by officials of the District Planning Offices on the basis of interviews with interested candidates.

[2] Typically, a participant may own some part of the fixed assets (e.g. smithies in the case of blacksmiths) and some shares in the development co-operative society.

firm since, instead of a capitalist hiring workers, the workers hire capital.[1] This is indeed an advance on the position of a worker employed in a state enterprise, who does not have the same sense of involvement or the same motivation for increasing productivity.

The link between a typical DDC project and the District Planning Office is the Development Assistant assigned to the project. Development Assistants are newly recruited arts graduates who are given short training courses in development work prior to assuming their duties.[2] These courses last a month or two and include the basics of project planning, management and accounting. Assistants also receive in-service training from time to time. Their function is not so much to act as a manager but to watch over and nurture the project until the members acquire adequate managerial and entrepreneurial skills.

### Types of project

By the end of September 1976, a total of 2,436 DDC projects had been approved;[3] 1,882 were still in operation, employing a little over 31,000 persons. Of those in operation, 681 were agricultural, 935 industrial, and 266 to do with fishing, infrastructure, etc.

The agricultural projects are mainly concerned with growing subsidiary food crops such as chillies, potatoes, onions, manioc, sorghum, maize and sugar-cane, or fruits such as banana, passion fruit and pineapple. There are also a number of dairy farming and poultry projects. The industrial projects are wider ranging. Among the products manufactured are two-wheeled tractors, fishing boats, motor spares, agricultural implements, strawboard, paper, paints, water colours, crayons, violins, manioc starch, garments, bricks, pottery, coir and coir products, sun hemp products, and sugar substitutes such as palmyrah jaggery, coconut jaggery and sugar-cane jaggery. Other food products include Maldive fish, bêche-de-mer, honey and mushrooms. Infrastructure projects include construction of minor buildings and roads, and the repair and maintenance of village water tanks and canals.[4]

## An economic assessment of the DDC programme

### Criteria

Evidently an economic evaluation of the DDC programme must be made in relation to its basic objectives. We have therefore tried to assess it in terms of the following principal criteria:

[1] A discussion of the theory of this kind of enterprise will be found in J. E. Meade: " The theory of labour-managed firms and of profit sharing ", in *Economic Journal*, Mar. 1972 (Supplement), pp. 402-428.

[2] An interesting by-product of this scheme was that it provided employment for a large number of " surplus " arts graduates who had come to be regarded as unemployable.

[3] This figure excludes 303 projects which ran into problems mainly owing to deficient planning at the local level.

[4] This work is usually undertaken on contract for the relevant government department or local authority by a construction unit of the development co-operative society.

*(a)* employment creation in a capital-scarce situation;

*(b)* contribution to national income and the effect on labour incomes and productivity.

Where there is abundant labour and capital is scarce it seems self-evident that the production techniques adopted should be labour-intensive and capital-saving. Yet the question arises whether it would not be better to invest in capital-intensive ventures, employ less labour, and divide the possibly greater output among the employed and unemployed. This view, which is held by some economists, is based on the tacit assumption that capital-intensive techniques always have higher output/capital ratios. However, there is no clear-cut evidence to this effect, at least in the case of developing countries. On the contrary, some examples have proved the reverse.[1]

One must also take into consideration the role of technological progress, which can lower capital/labour ratios without loss of output. Further, there is no satisfactory evidence that adequate surpluses for further investment are generated by the more capital-intensive ventures undertaken by the State in Sri Lanka. For example, the average rate of return before tax on capital employed in production in state industrial corporations was only 4.5 per cent in 1974 and 4.1 per cent in 1975.[2]

Even if there is some sacrifice of output in pursuing an employment objective, there are several arguments in favour of such a strategy. These have been well summed up by Stewart and Streeten.[3] Two are worthy of special mention. The first is that employment creation is a more effective method of redistributing income to those who would otherwise remain unemployed than the usual tax-subsidy methods. The second is the intense frustration associated with unemployment and the loss of self-respect as a result of being unable to make a contribution to society. Widespread unemployment can lead to incalculable harm by way of social unrest and even insurrection. If such situations can largely be avoided through the creation of adequate employment, the value of doing so is beyond assessment in monetary terms.

If only for these reasons, employment creation must be regarded as a fundamental short-term objective. It can even form an essential part of a long-term strategy. In an over-all strategy outlined by Dixit,[4] an optimal programme

[1] See, for example, A. S. Bhalla: " Investment allocation and technological choice—a case of cotton spinning techniques ", in *Economic Journal*, Sep. 1964, pp. 611-622; A. K. Sen: *Choice of techniques* (Oxford, Blackwell, 1960), p. 113; and B. Hewavitharana: " Choice of techniques in Ceylon ", in E. A. G. Robinson and Michael Kidron (eds.): *Economic development in South Asia* (London, Macmillan, 1970), pp. 438-440.

[2] Central Bank of Ceylon: *Review of the economy, 1975* (Colombo, 1976), p. 61. This low rate of return often stemmed from a policy of making goods available to the consumer at " reasonable " prices.

[3] Frances Stewart and Paul Streeten: " Conflicts between output and employment objectives in developing countries ", in *Bangladesh Economic Review* (Dacca), Jan. 1973, pp. 7-10.

[4] A. K. Dixit: " Optimal development in the labour-surplus economy ", in *Review of Economic Studies* (Edinburgh), Jan. 1968, pp. 23-24.

of growth in a labour-surplus economy could consist of three phases. The first would lead the economy to full employment relatively quickly. In the second there would be full employment, but per capita consumption would be held at a certain level in order to make the necessary sacrifices for growth. This phase would lead to a third one of steady growth and rising per capita consumption.

On the basis of the criteria set out above, an assessment of the DDC programme can now be attempted. The assessment takes into account industrial, agricultural and fishery projects, which together constitute 96 per cent of the total; infrastructure and other projects have been excluded.[1] The sample has been chosen from among the projects on which information was available at the time of writing; it consists of 210 industrial, 116 agricultural and 4 fishery projects. Investment figures include fixed as well as working capital.

**Employment creation**

Up to the end of 1975 the total capital investment in the DDC programme was approximately 45 million rupees. This investment had provided 20,457 jobs and created the potential for a further 18,000, making a total of 38,500 in round figures. It would not be fair to compare this investment with outlays on large-scale state-sponsored ventures in fields such as steel, petroleum, cement, tyres, ceramics, sugar, timber, textiles or paper, since the main emphasis in these was not on employment but on considerations such as import substitution, setting up feeder industries, and the production of essential basic goods. Nevertheless, to give an idea of the relative scale we may note that the investment in each of the corporations manufacturing the above-mentioned products is between 50 million and 500 million rupees.

There is considerable variation in the numbers employed in the respective DDC projects, but in 1975 the mean employment was 24.7 per agricultural project and 13.0 per industrial project. The largest group of agricultural projects was those employing 21 to 25 persons and of industrial ones those employing 11 to 15 persons.

As stated above, the effectiveness of the DDC programme must be assessed in terms of employment creation in a capital-scarce situation. For this purpose we have to consider the capital costs implicit in the creation of jobs, or the capital/labour ratios. The mean capital/labour ratio per agricultural and fishery project is estimated at about 1,800 rupees and that per industrial project at about 1,300 rupees. These figures highlight the employment-creation potential of the DDC programme as contrasted with the capital cost of creating jobs in the large-scale state industrial corporations, where the capital/labour ratio

[1] All data used in this study relate to 1975, at the end of which year there were 535 industrial projects, 497 agricultural projects, 15 fishery projects and 44 infrastructure and other projects. Our thanks are due to Mr. R. H. P. Fernando, Director of Regional Development, Ministry of Planning and Economic Affairs, for the arrangements he made to provide data for the study. Our thanks are also due to all the Development Assistants, statistical assistants and graduate trainees who helped in the collection and tabulation of data.

**Table 1. Capital/labour ratios in agricultural and industrial DDC projects**

| Capital/labour ratio (Rs.) | Agricultural and fishery projects | | Industrial projects | |
|---|---|---|---|---|
| | Percentage | Cumulative percentage | Percentage | Cumulative percentage |
| Up to 500 | 5.0 | 5.0 | 48.5 | 48.5 |
| 501- 1,000 | 14.2 | 19.2 | 20.5 | 69.0 |
| 1,001- 2,000 | 38.3 | 57.5 | 17.6 | 86.6 |
| 2,001- 3,000 | 21.7 | 79.2 | 3.8 | 90.4 |
| 3,001- 4,000 | 4.2 | 83.4 | 1.9 | 92.3 |
| 4,001- 5,000 | 6.7 | 90.1 | 2.9 | 95.2 |
| 5,001- 7,000 | 3.3 | 93.4 | 2.4 | 97.6 |
| 7,001-10,000 | 4.2 | 97.6 | 1.4 | 99.0 |
| 10,001-15,000 | 1.6 | 99.2 | 1.0 | 100.0 |
| Over 15,000 | 0.8 | 100.0 | — | — |

**Table 2. Capital/labour ratios by type of agricultural and fishery project**

| Type of project | No. of projects in sample | Mean capital/labour ratio (Rs.) |
|---|---|---|
| Sugar-cane cultivation | 6 | 1 235 |
| Mixed cropping | 90 | 1 450 |
| Poultry farming | 9 | 2 260 |
| Dairy farming | 11 | 3 678 |
| Fisheries | 4 | 6 170 |
| **All types** | **120** | **1 798** |

ranges from about 25,000 to 145,000 rupees (except in the Petroleum Corporation, where it is far higher) and averages about 49,000 rupees.[1]

Table 1 shows the spread of capital/labour ratios associated with the DDC projects. A word of caution is necessary regarding the interpretation of some of the low capital/labour ratios, which reflect the fact that in a number of projects (e.g. those involving blacksmiths, village craftsmen and potters) the investment relates merely to provision of facilities for the supply of raw materials and marketing of finished products.

The spread of the capital/labour ratios seen in table 1 is explained to some extent by the wide variations in these ratios from one type of agricultural and industrial activity to another shown in tables 2 and 3.

On the whole these figures reveal a considerable measure of success in lowering the capital cost per job created. They also indicate the sort of capital/

[1] Central Bank of Ceylon: *Review of the economy, 1975*, op. cit., p. 60.

**Table 3. Capital/labour ratios by type of industrial project**

| Type of project | No. of projects in sample | Mean capital/labour ratio (Rs.) |
|---|---|---|
| Collection of sand | 5 | 155 |
| Metal crushing | 30 | 183 |
| Coir processing | 3 | 435 |
| Light engineering works | 4 | 483 |
| Brick manufacture | 21 | 507 |
| Garment making | 31 | 627 |
| Pottery | 6 | 919 |
| Palmyrah jaggery | 34 | 1 447 |
| Manufacture of fish products | 7 | 2 397 |
| Building of fishing boats | 3 | 3 103 |
| Manufacture of paper and paper products | 8 | 3 289 |
| Textile printing | 5 | 3 628 |
| Medium-scale engineering works | 5 | 5 262 |
| Miscellaneous | 12 | 11 051 |
| **All types** | **210** | **1 281** |

labour ratios we should aim at if jobs are to be created on a large scale with minimum use of capital.

### Contribution to national income and the effect on labour incomes and productivity

The second important aspect of the DDC programme to assess is the extent to which it has contributed to national income and the impact it has had on the earnings of the lower-paid and on productivity. The first step is to work out rough estimates of the cost structures in each type of industrial and agricultural project. The information available is very limited and of varying reliability. Nevertheless, it is possible to obtain some first approximations of value added. Since DDC projects are labour-intensive and based on the use of local raw materials, the proportion of value added is high in most cases. For example, it comes to 78 per cent of gross output in the case of light engineering works, 75 per cent in that of palmyrah jaggery, 57 per cent for coir processing and 61 per cent for paper and paper products, but is as low as 38 per cent in the case of fish products and 21 per cent in the building of fishing boats. Among agricultural projects the corresponding figures are 75 per cent for mixed cropping, 69 per cent for sugar-cane and 60 per cent for dairy farming, but only 29 per cent in the case of poultry.

By applying the above percentages to the gross output of the various types of industrial and agricultural project in the sample, total value added and hence capital/output and output/labour ratios can be estimated. The results are summarised in table 4.

**Table 4. Output, value added, investment and employment**

| Parameter | Agriculture and fisheries (120 projects) | Industry (210 projects) | Total (330 projects) |
|---|---|---|---|
| Gross output (rupees) | 4 914 000 | 7 679 000 | 12 594 000 |
| Value added (rupees) | 3 600 000 | 4 597 000 | 8 197 000 |
| Value added as % of gross output | 73 | 60 | 65 |
| Capital invested (rupees) | 5 325 000 | 3 503 000 | 8 828 000 |
| Total employment | 2 962 | 2 734 | 5 696 |
| Capital/output ratio | 1.48 | 0.76 | 1.08 |
| Output/labour ratio (rupees) | 1 215 | 1 681 | 1 439 |
| Capital/labour ratio (rupees) | 1 798 | 1 281 | 1 550 |

Assuming that our samples are representative, the contribution to the national economy of the 535 industrial projects was 11,711,000 rupees and that of the 512 agricultural and fishery projects 15,360,000 rupees, giving a grand total of 27,071,000 rupees (if the 44 infrastructure and other projects are left out of account). This represents only 0.12 per cent of the 1975 gross domestic product at current factor cost. Insignificant though the contribution may be, a noteworthy feature is the favourable capital/output ratio of 1.08 as compared with a national figure of 3.5 to 4.0. This highlights the potential of the DDC programme with respect to the raising of national income.

The other parameter in table 4 that needs to be carefully interpreted is the output/labour ratio. Since this ratio represents value added or wages and profits per worker, and since wages and profits accrue to the participants, it represents income per participant per annum. It also represents the productivity of labour. As one would expect, productivity in the agricultural sector is lower than in the industrial. This is partly due to the seasonal nature of agricultural work and also to the continued drought over the past few years, which has depressed agricultural incomes throughout the country. The over-all average annual income of 1,439 rupees [1] per participant is considerably below the national mean of 2,730 rupees per income recipient.[2] One possible explanation of this discrepancy is underestimation of the gross output of DDC projects. Another is furnished by conventional economic theory, according to which low capital intensity per worker is associated with low output per worker; however, this is at best a partial explanation, as it ignores the role of many other factors governing output. Output per worker could be improved not

[1] Minimum wages vary considerably from one trade to another. Nearly all minimum wage rates for unskilled and semi-skilled grades were within the 1,200-2,400 rupees per annum range during 1975.

[2] Central Bank of Ceylon: *Survey of Sri Lanka's consumer finance, 1973* (Colombo, 1974), p. 56.

only by increasing capital intensity, but also through technical progress based on appropriate technology, workers' education, higher motivation and better organisation and management. Efforts to these ends have already been initiated, and their successful implementation will be essential to the development of the DDC programme on a self-sustaining basis. Clearly, higher levels of output are necessary if surpluses are to be generated for reinvestment.

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To sum up, if it is asked whether the investment of around 45 million rupees in DDC projects over the past few years would have been better placed in one or two large projects, there are sufficient reasons to justify what has been done. First, the alternative course would have created not more than about 1,000 jobs rather than the 20,000 created under the DDC programme. Further, the large-scale projects would have taken three to four years to set up. Finally, they might not have been set up at all for want of foreign exchange to import the necessary machinery.

## Some illustrations of DDC projects

In the preceding section we discussed the earnings per worker in the aggregate. In order to appreciate the nature of the impact that the DDC programme has had on the earnings of the lower-income groups it will also be of interest to note some of the important features of individual projects or types of project.

One of the most successful areas of operation is the network of medium-scale engineering projects. A good example is that in Nugegoda, a town about 7 miles south-east of Colombo. The main item of production is the two-wheeled tractor. The engine and special tyres are imported, while the remaining components are manufactured locally. Out of a total manufacturing cost of 4,750 rupees per tractor the foreign exchange component is only 1,100 rupees. Small parts are manufactured by members in different places, sometimes in their own homes, and are brought to the centre for assembly, while major parts are manufactured at Nugegoda itself. The centre has one lathe, one welding set and other ancillary equipment. The entire capital investment is 414,000 rupees and employment has been provided for 15 persons. Their monthly income ranges from about 100 to 400 rupees. In addition to 10 to 15 two-wheeled tractors per month, the centre produces about 100 wheelbarrows per month and water pumps and sprayers according to demand. Several similar units are in operation in different parts of the island and their products are of considerable importance to national development, particularly at a time when there is a concerted effort to increase food production.

In contrast to these projects there are others which are much more labour-intensive and which turn out items of importance to the food production drive

such as mamoties[1] and other agricultural implements. In a typical light engineering project there are some 10 to 15 blacksmith families organised in a co-operative. Fixed capital investment is minimal as the products are turned out on their own premises. The DDC programme provides raw materials and gives assistance with marketing. Blacksmiths can now earn a monthly income of 500-1,000 rupees compared with very much lower and more sporadic incomes in the days when they were underemployed and sometimes virtually unemployed.

Another area of operation directly linked to the national development programme is boat building. A typical example of such a project is that in Matara, a town on the south coast about 100 miles from Colombo. The Department of Fisheries supplies the motors, which are imported, and the entire boat is assembled locally. Annual output is about nine boats, and these are sold to the fishery co-operatives subject to approval by the Department of Fisheries. The total capital investment is 139,000 rupees and 25 jobs are provided in this way. Incomes range from about 125 to 275 rupees per month. Several similar units are in operation in different parts of the island.

Besides the above types of project there are those linked with infrastructure development, for example the manufacture of concrete products such as high-tension line and telegraph poles, fence posts, piping and a variety of other products. There are also several programmes of import substitution. For example, owing to an unprecedented increase in the world price of sugar, annual imports were cut back from 190,000 metric tons in 1973 to 42,000 in 1974. The DDC projects played a prominent role in increasing the production of jaggery from palmyrah and coconut palm toddy. Production is seasonal, extending through seven months of the year. If total annual earnings are averaged out, those of a toddy tapper amount to about 750 rupees per month and those of a jaggery maker to about 150.

The types of project described above are admittedly the more successful ones and may be regarded as indicative of the sectors where further development is likely to take place. Side by side with these projects are others which are less successful and some that must be considered failures. For instance, several agricultural projects have had to be closed down because of poor soil conditions or inadequate water supply. Most of these failures have been due to inadequate planning at the local level, sometimes as a result of overenthusiasm on the part of the DDC. They have mainly occurred in the initial stages and should be regarded as the inevitable teething troubles of the experiment. They should not be taken to imply that agricultural projects have generally been unsuccessful. On the contrary, some have brought considerable prosperity to the rural sector. For example, workers engaged in potato cultivation in up-country areas earn over 500 rupees per month in some cases. Sugar-cane cultivation is another success story, as are the chilli farms in the dry areas.

[1] A hand implement for digging.

Behind the success stories lies the most important factor in development, namely the human one. The enthusiasm shown by the members in their work as well as in discussions and rallies, the pioneering spirit and the dedication to hard work shown by the young Development Assistants, the direction and guidance offered by officials both at head office and at the district level and the special efforts of the Government Agents have contributed a great deal towards the over-all success of the programme. District revenue officers and officials of other departments and ministries have all added their efforts to the support and encouragement given by political leaders. Perhaps it is the awareness of being engaged in truly productive ventures that has inspired so many of those involved in the movement.

In the foregoing we have attempted to note some of the ways in which DDC projects have contributed to national development and the improvement of rural incomes. The examples cited illustrate other economic phenomena, one being the manner in which demand has been linked with the availability of resources. There had long been a demand for the wide range of consumer and capital goods now being produced by the DDCs, while at the same time raw materials and basic skills were available locally. The DDCs had to provide the missing link between availability and demand, since neither the private entrepreneur nor the existing government departments and public corporations had performed this task adequately. In the course of producing goods through a large number of small-scale ventures, the DDCs have also generated new demand for various items of small machinery which could be manufactured locally, in some cases in the same village. Another noteworthy feature of the type of employment generated by the DDC programme is that it is non-inflationary. Jobs are created in the directly productive sector, the gestation period is short, and the income earned by a worker is matched by the production of goods and services.

Perhaps the most significant long-term contribution of the DDC programme has been the transformation it has initiated in the rural scene. One important element of this has been the way the active participation and interest of the people have been enlisted in development work. As mentioned above, members of the general public are given an opportunity of presenting their project proposals to the Development Council. On becoming members of DDC projects, they have an opportunity of sharing in decisions with regard to planning, production and supervision. The second important element of the transformation is the self-reliance and motivation infused into the participants. The determination to rely as far as possible on local skills, locally made machinery and locally developed technology is bound in the long run to yield substantial benefits in terms of foreign exchange savings and development of the rural sector. The spread of managerial skills occasioned by providing educated young people with the opportunity to work as project managers is another new feature on the rural scene. Inevitably, the aggregate results of this transformation can only be evaluated over a long period of time.

## Towards the future

It would appear that the employment-creation potential of the DDC programme is distinctly greater than that of the other public sector development programmes and that it should be considerably expanded if the current unemployment problem is to be eased during the next few years. Further, the gestation period of most DDC projects is only two or three months, so that the programme has considerable potential for relieving unemployment in the short term. Thus it is likely to form an important element of any employment-oriented development programme in Sri Lanka.

The broad strategy of the DDC programme for the future is to develop areas of activity which have proved successful and for which there is further scope. Certain new fields for development have also been identified, mainly in the processing of agricultural products. These include the manufacture of sago and glucose, the processing of sorghum and maize, the extraction of protein from leaves, and the production of yeast and meat extracts, corned beef and sugar. The 1977-78 development programme envisages a capital investment of 180 million rupees in creating 80,000 new jobs. The successful implementation of this programme will no doubt require more detailed project studies; the training of personnel, particularly in development planning, management and accountancy; the recruitment of scientists, engineers and technicians; greater liaison with scientific and technical institutions and strengthening of research and development capabilities; and the systematic building up of organisational capacity to handle a vastly expanded range of activities. Work in these directions has already commenced. This expanded phase of the DDC programme will attempt to consolidate its previous gains, remedy its shortcomings and accelerate its own pace of development. ■