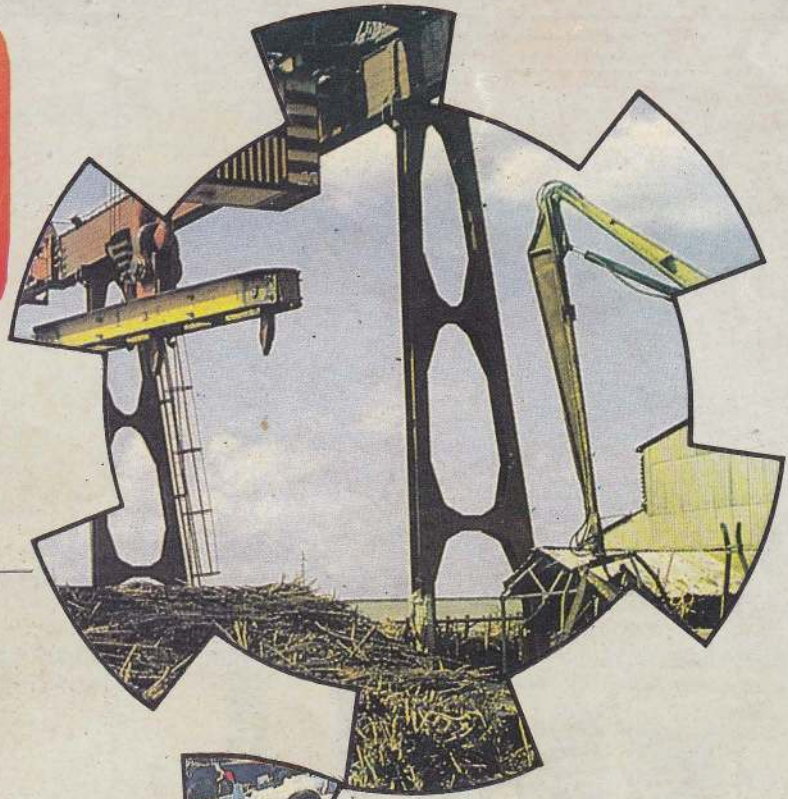


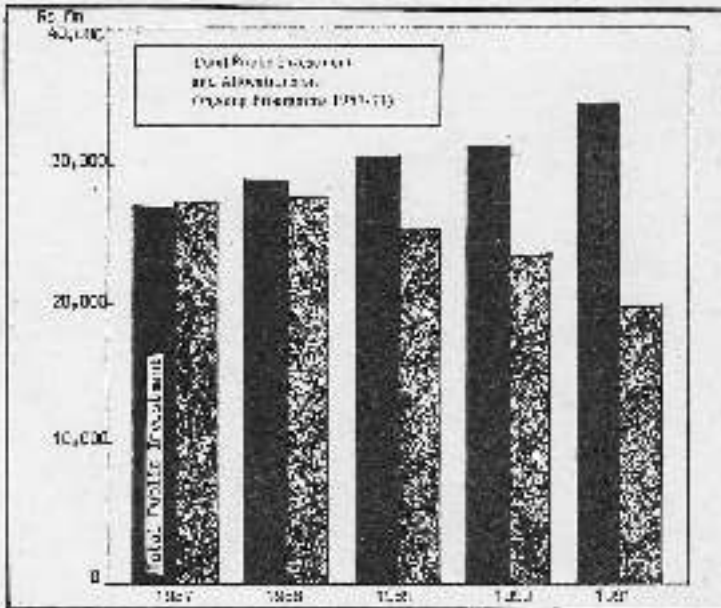
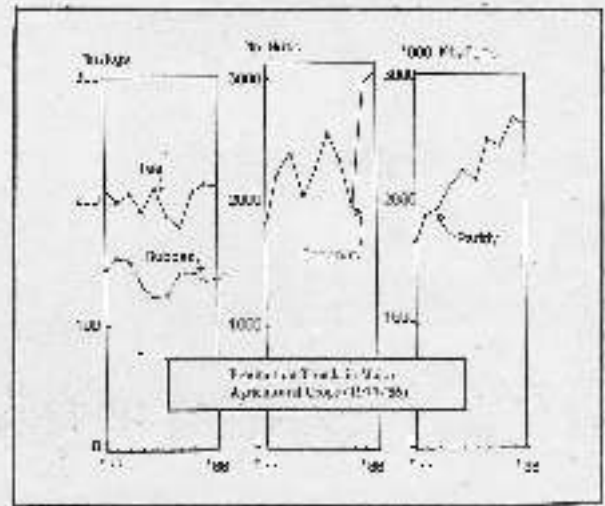
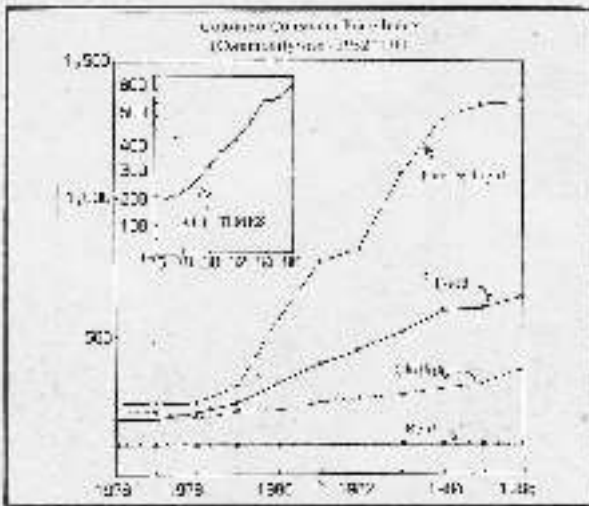
ECONOMIC REVIEW

JUNE/JULY
1987

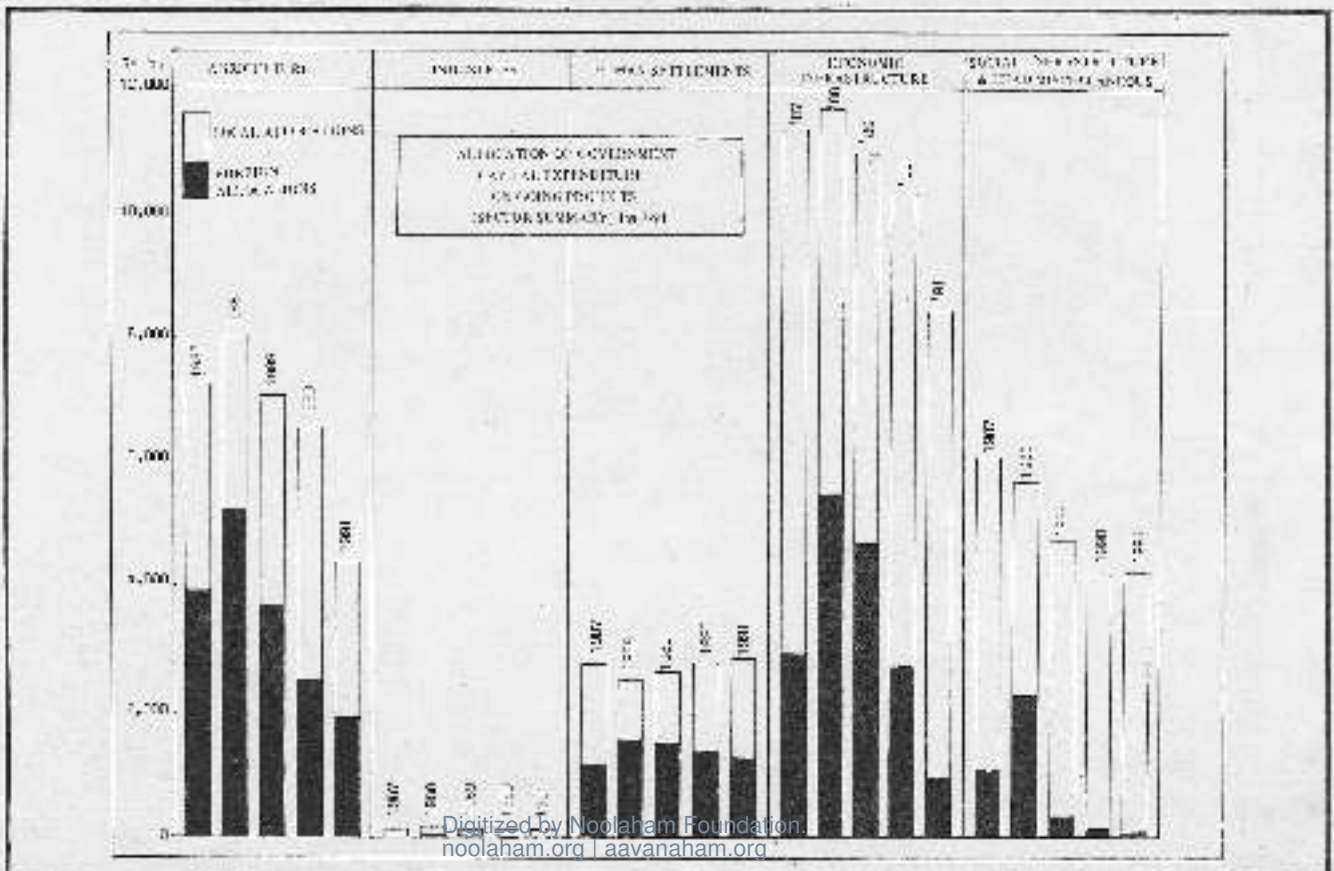


INDUSTRY





Economic Indicators



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THE ECONOMIC REVIEW is intended to promote knowledge of and interest in the economy and economic development process by a many-sided presentation of views & reports, statistics and data.

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- * Opportunities for chemical and processing industries in Developing Countries
- * The Multi-Fibre Arrangement and the new clothing exporters
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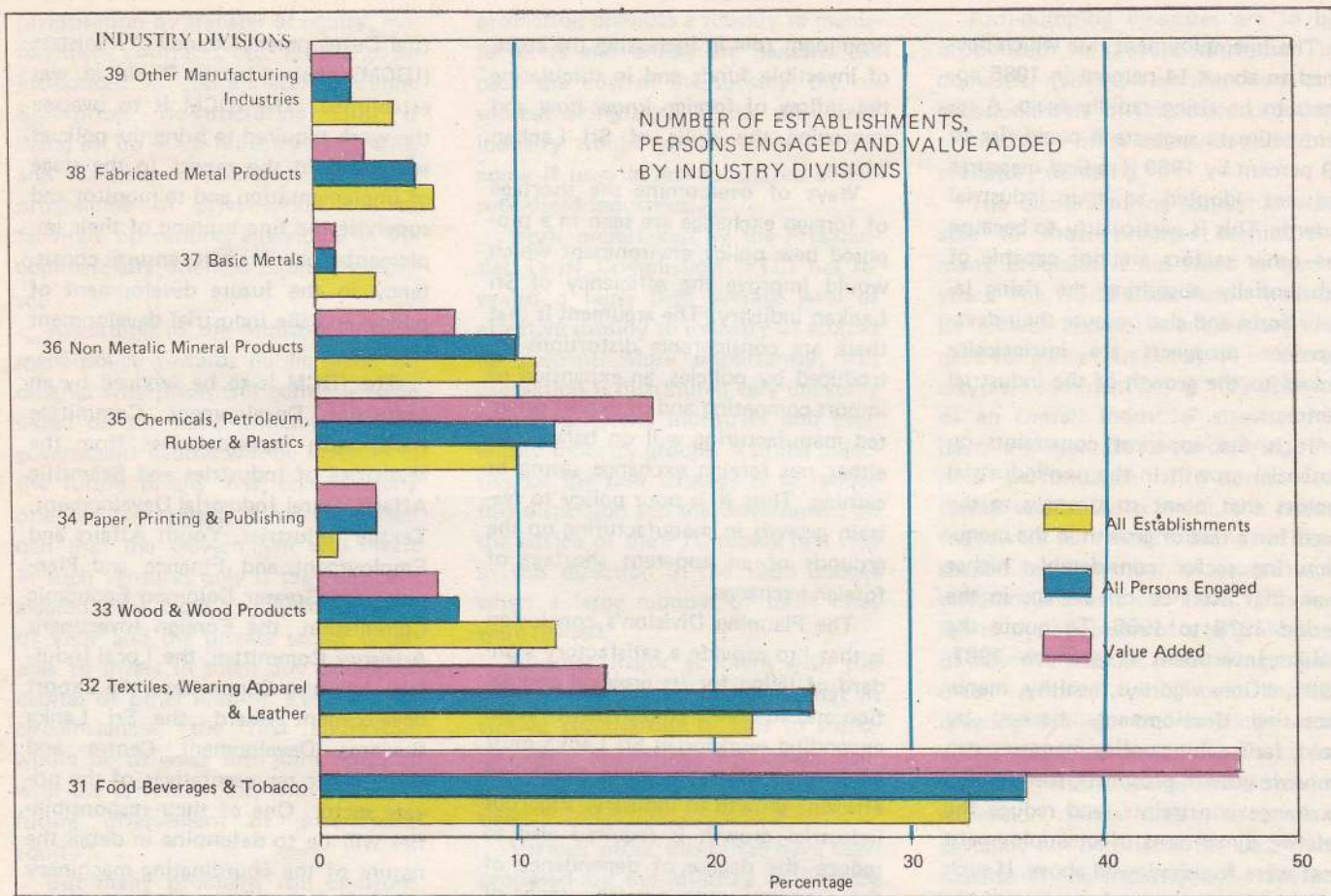
COVER

Sepalika Fernando

DIARY OF EVENTS

April

- 4 The Colombo Consumer's Cost of Living Index for April 1987 was 638.6, the Department of Census and Statistics announced. In March 1987 it was 632.5 while in March 1986 it was 595.3.
- 8 The Japanese Government offered an outright gift of Rs 100 million (equivalent to 680 million yen) worth of medical equipment to the Government of Sri Lanka to distribute among ten hospitals in the country. The equipment consists of laboratory, operating theatre and dental theatre equipment, sterilisers, X-ray plant, electrical equipment, ambulances and other sophisticated equipment.
- 9 Plans to issue promissory notes in part payment of arrears on its trade bills were disclosed by Nigeria.
- 15 Switzerland has pledged a grant of Rs 4.41 million for phase four of the Sri Lanka Swiss Livestock Development Project, the Finance Ministry announced. The first two phases of the project saw the establishment of the infrastructure for projects such as the base station at Polonnaruwa and the Semen Laboratory. The main emphasis during phase III of the project, which commenced in 1985, has been on consolidating the extension activities relating to genetic improvement of cattle through artificial insemination, fodder production and animal husbandry practices. The proposed phase IV of the project will see the further strengthening of the consolidation activities started under the previous phase of the project. This phase would also support a programme for developing extension packages and delivery systems for small holders.
- 16 British dairy farmers are to be fined £ 18 million for exceeding their milk production quotas, states the Economist. Production quotas are set for dairy producers in the EEC countries and violation of these quotas entails a fine.
- 19 Japan said it would appeal to the General Agreement of Tariffs and Trade (GATT) against American tariffs on \$ 300 m of its electronics exports, states an Economist report.
- 20 Turkey filed a formal application to join the EEC.
- 21 Vietnam drafted a law to permit companies to be wholly foreign owned and to repatriate their profits, according to the Economist.
- 23 The flow of economic assistance to Bangladesh from the oil-rich West Asian countries, particularly from Saudi Arabia which averaged about \$ 80 million annually between 1977 and 1984 has been rapidly declining. The trend has been well manifested in the last three years and commitment and disbursement levels according to officials in Dhaka.
- 25 Economic reformers in Vietnam planned to axe about 10 state sector jobs as part of an emergency austerity programme, according to an Economist report.
- 27 The World Bank, citing progress in Pakistan's Economic Performance and fiscal policy reforms has said it had agreed to a \$ 2.4 billion aid programme for the country for 1988. A Bank spokesman said the programme was larger than last year's and that "substantial increases" had been approved to help fund support for refugees from neighbouring Afghanistan. However, the spokesman said it had expressed serious concern at Pakistan's budgetary situation according to a Reuters report.
- Switzerland's Sandoz has received 460 claims demanding \$ 57 m in compensation for the damage done by its chemical plants that polluted the Rhine, according to the Economist.
- 28 A record 146 million dollars was spent last year by the Department of Technical Co-operation for Development on 1394 projects for third world countries, according to a United Nations announcement in New York. As much as 40 percent of funds, \$ 58.7 million, went to Africa, with the second largest sum of \$ 35.9 million going to Asia and the Pacific. China, India and Laos were helped to boost their domestic production of petroleum, and more than 50 other countries received assistance to develop new and renewable sources of energy from geothermal and hydro power to solar and wind energy.
- 29 The Government approved a proposal by Minister of Finance and Planning for a bilateral protocol on negotiations between the Governments of Sri Lanka and Thailand regarding the trade in Gaudas (See report on page 20).
- 30 Mr. Masao Fujioka, president of the Asian Development Bank, has said that the advance of substantial development loans to India and China would not preclude other countries from getting loans from the bank. He told at a press conference that as it was the bank's traditional borrowers were not borrowing as much as they used to.



Source: *Census of Industry 1983*
 Dept. of Census and Statistics.

MANUFACTURING INDUSTRY

Industry has been looked upon as one of the key areas in the economy that could help to step up economic growth in 1987. By early this year prospects for growth and employment creation in most other sectors of the economy appeared increasingly limited; and agriculture, construction and services were all assigned a limited growth potential over the next five year period. The expected constraints to growth in the non industrial sector pointed strongly to the need for stepping up the rate of growth in the manufacturing sector.

The Finance Ministry's Public Investment Programme 1987-1991 was emphatic that "the most dynamic role in stimulating economic growth, employment creation and export development in the medium term ahead will

have to be played by the Industrial sector. To adequately perform perform this role, this sector will have to generate rates of growth far in excess of the average 5.6 percent obtained in the last few years".

The National Planning Division of the Ministry in its analysis of the industrial sector maintains that the immediate aftermath of the 1977 economic reforms witnessed an impressive increase in growth of industrial output in response to the liberalization of imports and exchange controls. This encouraged a better utilization of industrial capacity and investment in manufacturing. But the growth momentum has not been adequately sustained, the average annual growth rate of industrial output between 1978 and 1985 being only 5.7 percent.

The growth rate in manufacturing has been grossly inadequate for a country which has to establish a firm industrial base for future economic growth and employment creation. Successful non-oil developing countries in Asia such as Korea, Taiwan, and Singapore have registered much higher rates of industrial growth in the initial years when the breakthrough was made. Average rates of growth of industry in these countries ranged between 25 and 30 percent in the breakthrough period.

Industrial growth at a rate much higher than in recent years must also be achieved if progress is to be made in tackling the balance of payments problem and in providing employment to a rapidly rising labour force. Debt service, already equal to 30 percent of the annual value of export of goods and services, will rise further if export receipts cannot be considerably expanded. This would irretrievably damage Sri Lanka's creditworthiness

The unemployment rate which declined to about 14 percent in 1985 appears to be rising rapidly again. A recent estimate suggests it could rise to 19 percent by 1989 if radical measures are not adopted to spur industrial growth. This is particularly so because the other sectors are not capable of substantially absorbing the rising labour force and also because their development prospects are intrinsically linked to the growth of the industrial sector.

It is the apparent constraints on potential growth in the non-industrial sectors that point so strongly to the need for a rate of growth in the manufacturing sector considerably higher than that attained on average in the period 1978 to 1985. To quote the Public Investment Programme 1987-1991, "Only vigorous, healthy, manufacturing development, backed by bold, far-reaching policy measures, can improve growth prospects, ease foreign exchange constraints, and reduce the relative dimensions of unemployment that were foreshadowed above. If such growth in the manufacturing sector can be secured, it will also have strong positive multiplier effects on the growth of the non-industrial sectors".

The planners see the obstacles to a more rapid expansion of the manufacturing sector as insufficient (a) demand, (b) investment funds and (c) foreign exchange. They argue that demand constraints, however, are not absolute. There is scope for further efficient import substitution and especially for the export of manufactured goods if the considerable opportunities to improve efficiency in manufacturing are vigorously exploited. Moreover, the impact of more rapid growth in manufacturing on other sectors, would result in secondary increases in demand for manufactured goods.

The remedies suggested for investment constraints are: policies which stimulate savings, make investment in manufacturing more financially rewarding, and lead to the more efficient use of capital. In particular, foreign direct investment could play a more

prominent role in increasing the stock of investible funds and in stimulating the inflow of foreign know-how and improving the skills of Sri Lankan labour.

Ways of overcoming the shortage of foreign exchange are seen in a proposed new policy environment which would improve the efficiency of Sri Lankan industry. The argument is that there are considerable distortions introduced by policies, an expansion of import-competing and of export-oriented manufacturing will on balance be either net foreign exchange saving or earning. Thus it is poor policy to restrain growth in manufacturing on the grounds of an apparent shortage of foreign exchange.

The Planning Division's conclusion is that "to provide a satisfactory standard of living for its growing population and to create employment for its expanding workforces, Sri Lanka must achieve considerably more rapid and efficient growth in industry. Vigorous industrial growth is required also to reduce the degree of dependence of the economy upon a narrow range of agricultural exports which are subject to fluctuations in international prices and climatic conditions. Within these major broad objectives of industrialization there is also need to foster the more balanced regional growth of industries, to encourage efficient small and medium scale industries and to achieve technological advancement. However, it is necessary to avoid haphazard regional dispersion, the promotion of non-viable small and medium scale industries, and the adoption of technologies which do not cater to the special needs of the country and the industry concerned".

Industrial Strategy

To prepare a strategy to achieve these objectives the Government appointed an Industrial Policy Committee (IPC) comprising senior level government officials and representative of the private sector. Their report was submitted to Cabinet in December, 1985. It was approved and an Indus-

trial Development Council of Ministers (IDCM), chaired by the President, was established. The IDCM is to oversee the work required to bring the policies advocated in the report to the stage of implementation and to monitor and supervise the fine tuning of their implementation. It will ensure consistency in the future development of policy and the industrial development strategy.

The IDCM is to be serviced by an Industrial Development Committee (IDC) with representatives from the Ministries of Industries and Scientific Affairs, Rural Industrial Development, Textile Industries, Youth Affairs and Employment and Finance and Planning, the Greater Colombo Economic Commission, the Foreign Investment Advisory Committee, the Local Industrial Advisory Committees, the Export Development Board, the Sri Lanka Business Development Centre and three other representatives of the private sector. One of their responsibilities will be to determine in detail the nature of the coordinating machinery required among the relevant government agencies to implement the strategy.

Public Sector Manufacturing Enterprises

Although the relative productivity, in terms of return on capital and value added, in the private sector is higher, the public sector has shown significant performance improvements relative to previous years.

Many capital restructuring studies relating to manufacturing corporations have already been completed. Others are continuing. These are expected to assist Government in addressing problems concerning rehabilitation, re-orientation and privatisation.

While performance improving and capital restructuring exercises are progressing, legislation has been passed by Parliament to enable conversion of Public Corporations and Government Owned Business Undertakings to Limited Liability Companies. Further

privatisation by transfer of equity, management contracts, etc., are due to be introduced as appropriate. A Public Enterprises Re-structuring Unit is being set up in the Ministry of Finance and Planning to implement a phased programme of privatisation and to facilitate operational autonomy in the commercially oriented public enterprises.

According to the Ministry, Government policy towards public sector industrial enterprises will continue to be based on the basic principle that no government capital will be invested in the future in any new, commercially oriented enterprises. It has been decided that the Government will invest in such ventures only if they are considered vital from the national point of view and the private sector is unable to invest in them due to lack of capital or other reasons. Even in such circumstances, the first endeavour would be to enter into joint ventures with the private sector, with plans for future divestment of government equity.

But many problems still confront the efficient operation of these public enterprises, and the Secretary to the Ministry of Industries Mr Justin Dias illustrates this in his paper on pages 10-14.

Role of Incentives

It is essential that incentives provided to manufacturing stimulate investment and promote the efficient utilization of resources in the sector. The case for providing the manufacturing sector with incentives depends upon the greater general potential for manufacturing, compared with other sectors, to generate growth as a result of the acquisition of skills and technological knowledge. It also depends, in Sri Lanka's case, upon a bias in the way in which investors view investment in manufacturing. This bias has resulted from their traditional pre-occupation with and skills in promoting trading activities.

However, there are real costs as well as benefits arising from the provision of incentives or protection. In effect,

protection provides a subsidy to manufacturers and unless the benefits exceed the cost of the subsidy, the resources being used in the subsidized industry would generate more real income if used in less subsidized or unsubsidized industries.

Work undertaken by the Presidential Tariff Commission (PTC) has revealed a fairly high average level of effective subsidy to industry of around 80 percent. More importantly, this protection is distributed very unevenly among different industries and even within industry groups. A prime objective of the new strategy is to reduce this dispersion and the Government on the advice of the PTC took a first step in this direction in the 1986 Budget when a large number of tariff rates were revised.

Another major problem with too high a level of protection is that in stifling competition it fails to stimulate firms to seek new and better technologies and working skills and practices.

Various other incentives have been proposed by the Ministry of Finance and Planning to stimulate growth and further investment in the industrial sector. Among these are incentives for export industries, assistance to value added in exports, and Income tax-investment relief.

Import Competing Industries

In the import-competing sector the strategy is consistent with steps already being pursued by the Presidential Tariff Commission. The tariff is to become the major policy instrument providing assistance and work is ongoing in the PTC to update measures of protection. The few remaining import controls are to be phased out.

A four-tiered tariff structure is to be introduced over a four year period with a targeted average level of assistance around 50 percent and with a greatly reduced dispersal of assistance among industries. This will provide a more stable investment environment in that levels of assistance will be known in advance.

Anti-dumping measures are to be introduced to prevent disruption in domestic markets resulting from the occasional sale of subsidized products produced in other countries and from predatory dumping.

The manufacturing sector has been able to show progress despite the many problems it has faced in recent years. The World Bank has in most of its annual appraisals emphasised the need for a clear cut policy on industry, a typical comment being "The absence of an overall industrial strategy has been a major factor underlying the poor performance of the manufacturing sector. As a result, the policy framework for manufacturing has been shaped by a number of groups with different interests and views. This had led to the adoption of a large number of selective policies which in aggregate often conflict with one another drawing resources into inefficient activities, giving confusing signals to potential investors, and generally slowing expansion. While such a situation is certainly not peculiar to Sri Lanka, the malaise of the industry and trade policy had drawn particular attention because of the strong commitment and clarity of purpose demonstrated by the Government in undertaking the 1977 reforms".

It was statements such as this that continued to emphasise the need for a clear statement of policy and to focus on the numerous issues and resultant cross purposes in attempting to develop a harmonised, liberalised trade sector along with a viable manufacturing sector.

Many issues still need to be resolved and the 'reflections' on specific aspects of industrial development by Mr Mahinda Wijanayake who is closely associated with many official industrial finance institutions and counts many years of involvement with industrial administration both in the Public sector and Private sector and also wide experience as an international industrial consultant focus, in the following paper, on some of the main areas of concern.

REFLECTIONS ON INDUSTRIAL DEVELOPMENT IN THE POST-INDEPENDENCE ERA

E. M. Wijenaiké

*Chairman, People's Merchant Bank,
Director People's Bank and DFCC*

While industrialisation is certainly an important objective for a developing country, it is not something that will just happen in most developing countries. Government intervention and support is necessary and each country depending on its own socio-economic conditions, must fashion strategies and policies to suit its own particular needs and its factor endowment. There is no uniform or common strategy of development suitable for all developing countries. It is also even more important that when strategies and policies are formulated they must be translated into a concrete programme of action which is pragmatic. It would appear that what has happened in Sri Lanka is that although the strategies and policies over the years have been generally sound successive governments have found it difficult to create the environment necessary to accelerate the tempo of industrialisation in terms of practical action programmes, except perhaps the present government which has certainly done better than all its predecessors. Admittedly this lack of success by previous governments may have been for reasons somewhat beyond their control, to some extent like the external shocks of the sudden oil price hike in the 1970's. It would appear also that the direction of industrial development in Sri Lanka has been affected very much by the political ideology of the particular government in power and also sometimes by the impractical ideas of bureaucrats holding high positions but with little or no knowledge of industrial management.

Industrialisation prior to 1960

Prior to 1960 industrialisation through the establishment of import substitution industries, was justified on the grounds that it would help to

reduce the dependency of the country on the export of primary products by reducing the demand for imports and increasing local output. It was felt that growth of output alone by restructuring the economy would raise living standards and provide employment for surplus labour.

However, in this initial phase of industrialisation little progress was made except for the establishment of a few government enterprises despite some protection for infant industries. In the early 1960's the governments in power which had to face an acute foreign exchange shortage, continued these policies with great vigour. Quite a number of import substitution industries both manufacturing essential as well as non-essential items were started by private entrepreneurs. These import substitution industries were developed under the protection of high tariff barriers and generous tax benefits based on the "infant industry arguments". The foreign exchange crisis resulted in a very restricted licencing system where licences were required for all raw material and machinery imports. The exchange rate was grossly over-valued and interest rates kept low to protect the consumer with the result that entrepreneurs preferred to import capital intensive technology rather than use labour intensive technology for manufacturing. Considerable emphasis was also placed on the development of public sector industry. Most of the industries started at this stage did not use local raw materials. Protected industries earned enormous profits as there was no competition. Large capital intensive public sector projects such as steel, hardware etc. were also started.

Changes in 1965

When the government changed in 1965 somewhat more liberal proce-

dures were introduced for starting industries which gave a greater fillip to industrial development and private enterprise. However, the policy of the previous government in regard to maintaining and strengthening public sector industry continued. Under the government particularly one significant contribution towards industrial development was the establishment of the Industrial Development Board which was specifically created to promote industrial development. A two tier exchange rate was also introduced to help industrialists.

Policies and Strategies in 1970

In 1970 with the next change of government the policies and strategies for industry were changed again in line with current economic thinking and the government's own political ideology. The basic needs employment generation strategy for industrial development was adopted. It was also decided that greater emphasis should be placed on public sector industry which would be the main instrument for industrialisation. As far as the private sector was concerned assistance and incentives were given for the promotion of labour intensive small scale industries based on appropriate technology. The Industrial Development Board was vested with the special responsibility for the promotional work in this regard. In addition to the large expansion of the public sector by the Ministry of Industries, the Ministry of Planning itself through Divisional Development Councils got involved in active promotion and implementation of small industrial projects, based on appropriate technologies, in many cases with disastrous results as the officials concerned had unfortunately no knowledge of industrial management at all. By 1977, the situation in regard to industrial development had been reduced to an extremely sorry state, due to over regulation, exchange shortages, labour unrest, mismanagement in public sector industry and almost total lack of entrepreneurial interest in the private sector. Nearly all DDC projects were

failures. The small certainly did not turn out to be beautiful as was the hope of the government. However, there were windfall profits for some private sector firms due to import shortages.

Open economy from 1977

In 1977, there was another change in policy with the present government introducing policies and strategies to promote an open economy. Under the open economy, except for a few sectors, there is allowed the unrestricted import of machinery and raw material to entrepreneurs who are interested in starting new industry. On technology too the Government's position appears to be today an open one. Regulation of industrial development was reduced to a bare minimum. Protection however continues for certain import substitution industries. Some of these import substitution industries ran into difficulties because cheap imported goods were being dumped in Sri Lanka by certain developed countries. Quite a few large industrial concerns which prospered much during the previous regime, under conditions of virtual monopoly, have also got into serious difficulties partly due to management inefficiency and continue to be in difficulty. The apparent over valuation of our exchange rate against certain currencies has also compounded problems of liquidity, resulting in many large industries having to operate at low capacity utilisation, with serious effects on their viability. However, overall there has been an impressive growth of new industrial enterprises and a considerable fillip given to existing ones. 1984 appears to have been a particularly good year recording the best performance of industrial exports in a decade.

Three phases of industrialisation

The objectives, policies and strategies for industrialisation in developing countries have been the subject of much debate amongst economists over the years. To summarise what I have said at the risk of repetition, in the

first phase of industrialisation in Sri Lanka the goal of industrialisation was to re-structure the economy so that it would be less dependent on the export of agricultural production and more self-reliant in regard to imports by the establishment of import substitute industries. The so-called Mahalanobis model. This was only a very limited success.

In the second phase the objectives of industrialisation underwent a change and employment was considered as being the most important goal of industrial development and the basic needs employment approach based on utilisation of appropriate technology, local raw materials and labour intensive techniques was given high priority. This was a very inward looking strategy based mainly on the economic theories such as those of Schumacher. The government also looked upon public sector industry as the main vehicle to promote industrial development. All large scale industry was to be state owned. Industrial development was closely controlled and more or less directed by government. This strategy was a failure. The large expansion of the public sector also did not help as performance was poor. The incentives for private entrepreneurs were totally insufficient to stimulate interest in industry.

In the third phase Sri Lanka once again changed its goals and strategies for industrial development by opting for what is termed an export led industrial development strategy. Here again the main objective was employment creation mainly through industrial exports. Unlike in the previous phases, however, much greater reliance is being placed on the private sector to promote industrial development. Market signals were to be more important than those of government decision makers. Expansion in the public sector was restricted and public sector industry was expected to ensure that revenues at least cover costs. No new public sector industry were to be started.

Export led industrialisation

The arguments for export led industrial development reprints in a sense the re-emergence of the free trade position and the classical theory of comparative advantage. Sri Lanka, as a labour surplus economy, by developing export oriented industries with labour intensive technologies, will make best use of its factor endowment on the assumption of course that there are no other factors of production such as natural resources which are equally or more underutilised. This strategy certainly appears to have been much more successful than the previous ones.

There is we know still another school of thought which rejects both the free trade arguments of the export led industrial strategy protagonists and also the basic needs employment approach protagonists on the grounds that such policies will perpetuate under development and also not solve the complex problems of developing countries. They advocate the adoption and acquisition of the most modern technology where the size of market permits and the country concerned is able to absorb such technology. Developing countries should endeavour to leap frog from the state of technology that presently exists in their countries and adopt the most modern. This view is gaining ground particularly with the rapid spread of computerization in some developing countries.

From our own experience however it would appear that at least at the present juncture the export led industrial growth approach is what is most appropriate for Sri Lanka.

A combination of export led industrial development and import substitute strategies is not entirely incompatible particularly where import substitution has good prospects for export orientation and provided also incentives for the latter are not more attractive than for the former.

As I have stated earlier there is no strategy or policy that can be regarded as the perfect instrument for promotion of industry in developing coun-

tries, particularly for countries like ours which are so susceptible to external forces. It is therefore necessary to continually monitor, reappraise, and change strategies as problems arise.

Institutional mechanisms, policies and strategies

Most important, the institutional mechanisms to do this must be there. I make this point because I feel that there are a large number of problems within the framework of existing strategy that have arisen, that need attention early, but the existing institution mechanisms appear slow to respond.

The Ministry of Industries in 1981 stated that the policies and strategies of the government in regard to industrialisation were to promote, equal, opportunity for private and public sector industry to develop and to encourage in particular:

- The utilisation of local raw material in industry,
- Labour intensive industry,
- Foreign investment, in manufacturing industry,
- Regional development,
- Development of agro industry,
- Rural industry.

Obviously for these policies to be meaningful in terms of a programme of action they have to be implemented in a concrete way which means that the following are essential:

The establishment of an appropriate institutional framework for financing, extension services, research etc.

The establishment of a suitable infrastructure to provide basic amenities at reasonable cost,

Legislation where necessary for the provision of incentives to achieve the goals set out in the policies and strategies enumerated.

Machinery for continuous co-ordination, monitoring and review.

Problems causing concern

We know that a number of dynamic new institutions have been set up such as the Greater Colombo Economic

Commission and the National Development Bank, to help implement government's industrial policies, apart from many others. Attractive incentives have also been provided for industries serving both the domestic and export markets. Older institutions such as the Development Finance Corporation and the Export Development Board have been revitalized. The World Bank, the Asian Development Bank and other external organisations are providing concessional finance. Despite all this there are problems that are causing fair amount of concern which need the government's continuing and urgent attention. Among them are:

The over-dependence of the country on textiles, garments and petroleum exports which are highly vulnerable to external forces. Nearly 50% of the manufacturing exports comprise these items and they have a low value added. Also over 50 per cent of all export garments is for the US market.

The grave difficulties a number of industrialists, particularly in the garments industry and the textile industry, are facing in regard to liquidity.

The failure rate in industry in general. No statistics however are available.

The apparent over-valuation of the exchange rate in relation to certain currencies which is causing difficulties for certain export oriented industries, particularly those using local raw materials.

The inadequacy of protection in the case of certain import substitute industries due to leakages into the domestic market of duty free goods, and also dumping.

The non-availability of land for industrial purposes at reasonable prices. The industrial estates programme has not been expanded, substantially.

The slow growth of agro industries, and rural industrialisation. The slow development of industry, in parti-

cular agro industry, in areas under the Mahaweli project.

The optimum benefits of the Mahaweli Project can only be realised when this happens particularly where employment generation is concerned.

The continuing concentration of industry in the Colombo district.

The low rate of capacity utilisation in many industrial units, particularly those using highly capital intensive technology.

High rates of interest for working capital.

Poor financial management at the level of the individual firms.

Poor performance of certain large public sector industries. The need to improve considerably the existing industrial extension services.

Although government policies are those which reject controls on industrial development this does not mean complete non-intervention. If the open economy policies and strategies are to succeed in the industrial field considerable intervention at the appropriate moment is essential, so that the environment for industrial development continues to remain congenial particularly for the private entrepreneurs, who will be the principal change agent to promote industrial development. The private entrepreneur identifies, formulates and makes decisions on project implementation. The government provides the rules of the game and the necessary environment.

This is how the system should work. Professor Lewis remarked many years ago that policies should be sensible and there should be good public administration for any strategy in industrialisation to succeed.

Having being involved for many years with industrial administration both in the public sector and the private sector, I must wholeheartedly agree with this view from my own experience.

The future

Looking into the future and taking into consideration past performance and international trends, I would say that we can realistically expect only modest progress in industrial development in the next few years because of the various inbuilt constraints that exist. The contribution of the manufacturing sector to GDP is presently only around 14 per cent. Processing of tea, rubber and coconut is included in this figure.

However, the need to cross on with accelerating the pace of industrial development must continue in view of the valuable contribution it is making towards restructuring the economy.

Manufacturing industry today consists of 99 public sector corporations, about 9000 registered private factories and over 20000 un-registered small and cottage industries. About 60% of the gross output comes from public sector corporations. The products of the Petroleum Corporation have a very large share in this output.

The report on public investment for 1985-1990 mapping out the economic development strategy for the period ahead states that present policies for industrial development will continue and government's role in industrial development is perceived as mainly providing the necessary economic climate and the basic infrastructure. The private sector will have to bear the major share of the burden of developing a viable industrial structure in Sri Lanka. There will be a further rationalisation of the 1977 reforms so that a selective incentive structure is provided to achieve a socially desirable rate of growth and structure of production.

In conclusion I would like to state that due to limitations of time I have, in discussing the economic policy issues relating to industrial development, mainly focussed my attention on the growth of modern factory type industry. However, the contribution of the traditional unorganised, informal sector could be quite considerable provided it is possible to structure a scheme of assistance for them.

SOURCES OF INDUSTRIAL PRODUCTION IN RECENT YEARS

(From statistics compiled by the Central Bank)

Value of Industrial Production 1982-1986

(Current Prices)

Rs. Million

Category	1982	1983	1984	1985	1986(a)
1. Food, beverages and tobacco ...	5,246	6,998	8,621	10,487	12,129
2. Textile, wearing apparel and leather products ...	3,863	5,136	7,565	9,505	12,088
3. Wood and wood products (including furniture) ...	361	522	640	703	832
4. Paper and paper products ...	724	901	907	1,183	1,289
5. Chemicals, petroleum, coal, rubber and plastic products ...	13,099	11,880	14,328	13,104	11,688
6. Non-metallic mineral products (Except petroleum and coal) ...	1,250	1,468	1,829	1,854	2,051
7. Basic metal products ...	202	301	199	125	281
8. Fabricated metal products, machinery and transport equipment ...	904	1,129	1,456	1,792	1,757
9. Manufactured products not elsewhere specified ...	74	90	106	125	136
Total ...	25,904	28,454	35,653	35,692	41,452

(a) Provisional.

Source: Central Bank of Sri Lanka.

Power and Fuel Use in Industry 1984-1986

Item	1984	1985	1986(a)
1. Electricity (Gwh) ...	790.9	850.4	922.0
1.1 Small Industry ...	31.7	34.7	36.0
1.2 Medium Industry ...	371.9	411.4	424.1
1.3 Large Industry ...	387.3	404.3	461.9
2. Domestic Sales of Industrial Fuels (000 metric tons)	283.5	163.2	149.5
2.1 Heavy Diesel ...	23.7	20.3	19.8
2.2 Furnace Oil ...	214.8	142.9	129.7

(a) Provisional.

Source: Ceylon Electricity Board.

(b) Sales other than to the Ceylon Electricity Board.

Ceylon Petroleum Corporation.

Transfers of Government Funds to Industrial Enterprises 1984-1986

Rs. Million.

Corporation/Enterprise	Capital			Current			Total		
	1984	1985	1986(a)	1984	1985	1986(a)	1984	1985	1986(a)
1. National Milk Board ...	7.3	10.3	2.5	21.1	50.0	35.0	32.6	60.3	57.5
2. Ceylon Oils and Fats ...	29.1	6.0	—	—	—	—	99.1	6.0	—
3. Sri Lanka Sugar ...	410.2	508.3	150.0	7.1	—	—	417.3	508.3	150.0
4. National Textiles ...	127.2	—	42.0	—	30.4	—	127.2	30.4	42.0
5. National Paper ...	5.6	—	—	—	27.1	8.0	5.6	27.1	8.0
6. State Fertilizer Manufacturing ...	26.1	—	—	537.3	43.0	27.3	563.4	43.0	27.3
7. National Packaging Materials ...	—	—	—	1.0	—	—	1.0	—	—
8. State Printing ...	51.6	2.7	—	—	—	—	51.6	2.7	—
9. Ceylon Oxygen Ltd. ...	—	—	—	6.1	7.6	—	6.1	7.6	—
Total ...	727.3	528.3	194.5	576.6	158.1	70.3	1,303.9	686.4	264.8

(a) Approved Estimates.

Source: General Treasury.

BURNING ISSUES OF PUBLIC SECTOR MANUFACTURING ENTERPRISES

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Introduction

Failures of Public Enterprises are discussed so often, one may wonder whether the Public Enterprises in Sri Lanka are doomed to fail. I consider this situation is due to the fact that adequate publicity is not given to the recorded achievements of some of the Public Enterprises, the contributions they have made to the national economy and to the fulfilment of social objectives by the Public Enterprises. Essential services provided by the Public Enterprises in crisis situations are easily forgotten once normalcy prevails. However, I do not suggest that the government should expand or contain all the economic activities entrusted to the various Public Enterprises and continue operations of loss making enterprises. The theme of my submission is that the activities of Public Enterprises have to be rationalised before changing the structure or ownership (privatisation) because privatisation is no panacea for all failures of Public Enterprises as some of us claimed.

Moreover failures are not confined to Public Enterprises. Every year thousands of large and small private enterprises are failing and collapsing in the business world. As a matter of fact failures will be inevitable in a privatised Public Enterprise, if the symptoms and causes of the failures of the original Public Enterprises are not comprehended. These symptoms and causes are described by me as burning issues of Public Enterprises. Hence the first step should be identification of burning issues of Public Enterprises and thereafter the exploration of remedies has to be undertaken. Remedies may vary from Rationalization to Privatisation. Simply adopting privatisation before

diagnosing (symptoms and causes) the burning issues would be a futile exercise. Also the effectiveness of any rationalization programme depends on careful assessment of the burning issues.

Public Manufacturing Enterprises

There are nearly 200 public enterprises covering all economic activities in Sri Lanka. This presentation is confined to the public sector manufacturing enterprises (PME). Despite the accelerated growth of the private sector since the introduction of economic reforms in November 1977, still the PMEs dominate the manufacturing field.

Reasons for this dominance can be ascertained by making a brief reference to the history of Public Manufacturing Enterprises. As stated by various policy makers, Public Enterprises in Sri Lanka were established as a historical accident and not as a deliberate act of policy. The original PMEs were set up by the Colonial Government, to overcome scarcities during the second world war; although subsequently attempts were made to privatise them by a Government sponsored Corporations Act. As a result of the change of government in 1956, the earlier policy was changed. The Industrial Corporations Act of 1957 was introduced by the new Government to expand the public sector. Most of the PMEs were established under this Act. The Petroleum Corporation and some other PMEs were incorporated under special acts. These acts were introduced by the Government in order to expand the public sector by diverting more resources to manufacturing industries. The expansion of the public sector was further compounded by taking over private sector industries under the Business Acquisition Act of

1972. Thus PMEs expanded from a few Government factories to large industrial complexes by the mid 1970s. But most of these PMEs did not achieve their desired growth and goals and some of them became a burden to the economy because of their failures.

Failures

What do we mean by failures? According to Professor Altman: "A company fails when it does not earn an adequate return on risk capital". If this definition is applied to PMEs, most of them are failures. Continuous failures lead the enterprises to insolvency. When it is insolvent the enterprise cannot pay its dues to its creditors. If the creditors insist on payments, the PME would have to sell its assets and go bankrupt to settle its liabilities. However, if a private firm does go bankrupt in this way only a limited number of people would have to bear the burden. But when activities of PMEs are wound up as a consequence of such business failures more people have to face dire consequences. Public savings invested in those PMEs will be wasted. Employees will lose their jobs. Hence a decision to close down any PME has to be taken only if there is no other viable solution to settle its burning issues. Perhaps the enterprise could be made viable by retrenching excess labour, closing down uneconomical sections, changing product mix, reducing cost of production and by taking any other action to rationalize the activities of the PME.

However, the Government cannot sustain PMEs that continue to fail in the achievement of desired economic and financial targets. PMEs should not be maintained for the sake of their employees. If there is consensus to the effect that the continuous operation of a particular PME is not economically viable and a burden to the national budget, then it is the duty of the authorities to look after the interest of the people and close down the PME, because additional investment in the form of working capital and subsidies will bring no return in

those enterprises. Employees of those enterprises should be compensated for loss of career in PME's, if they are wound up as non viable enterprises. However, careful monitoring of the activities of PMEs and diagnosing the symptoms and causes of their failures and solving those burning issues, would perhaps avoid this unpleasant situation.

What are the burning issues?

As I stated earlier the burning issues of PMEs are the symptoms and causes for failures of the enterprises. Before explaining these issues I would like to reproduce the following passage from the book named Corporate Collapse written by "John Argentine". In the management of a company, if poor then two things will be neglected: the system of accountability information will be deficient and the company will not respond to change. Some companies, even well managed ones, may be damaged because powerful constraints prevent the Managers making the responses they wish to make. Poor Managers will also make least one of the three mistakes: they will over-trade or they will launch a big product that goes wrong or they will allow the company's gearing to rise so

that even normal business hazards become constant threats. These are the chief causes: neither fraud nor bad luck deserve more than a passing mention. The following symptoms will appear: certain financial ratios will deteriorate but as soon as they do, the Managers will start creative accounting which reduces the predictive value of these ratios and so leads greater importance to non-financial symptoms. Finally the company enters a characteristic period in its last few months

Causes and symptoms of business failures, in other words the burning issues discussed above, are found in most PMEs. In addition to these there are some Corporations/Enterprises with specific burning issues: details of which will be disclosed later. Let us now discuss the symptoms. Firstly, the deterioration of financial ratios. Take Tables 1 and 11. Figures relating to 11 financial ratios of 12 PE's under the Ministry of Industries and Scientific Affairs (MISA) are given in Table 1. It is observed that trading enterprises (GOBU of United Motors and Parathan Chemicals Corporation) record high returns and their Return on Investment (ROI) is four times the overall average. The Mineral Sands Corpo-

ration has also reported a very high return, but from the nature of its activities ~~it is not an exceptional achievement~~ this is not an exceptional achievement. This Corporation is mainly engaged in spinning and if they obtain good prices for their products, invariably they would show good Returns on Investment. However it is not possible to make a good assessment by looking at one year's figures. In Table 11 historical data for a number of years is given. It shows that financial ratios have progressively deteriorated in most cases since 1980. This position is confirmed by the index of Industrial production of the Public Sector shown in the diagram. Thus the first burning issue of PMEs is the deterioration of financial ratios. Causes for this are discussed later.

When Managers of PMEs notice that financial ratios continue to show unfavourable situations they would resort to creative accounting and manipulate figures to mislead top management and the general public. The Auditor General has disclaimed annual accounts of a number of PEs as they have not conformed to the required standards and followed the accepted

TABLE 1

TABLE 1: FINANCIAL PERFORMANCE OF 12 PE'S UNDER MISA, Q1, 1985

	United	Deviates	Leather	Edwards	Hyge	Hygees	Ind	Repet	Soft	Paran	Type	Mineral	Index
	120	120	120	120	120	120	120	120	120	120	120	120	120
Profitability (Return on Equity)	6.0	6.9	6.2	32.0	7.7	(5.7)	5.8	1.5	2.5	31.5	14.0	5.6	31.4
Gross Profit Margin	25.0	23.0	27.0	34.0	33.2	17.1	15.5	15.7	10.2	31.5	18.3	21.3	25.3
Administration Expense Ratio	3.4	1.5	18.4	4.4	19.8	15.8	3.7	2.5	14.4	11.8	6.1	7.8	5.1
Selling Expense Ratio	2.7	2.8	2.4	6.2	6.4	3.8	2.1	3.3	2.3	0.1	1.6	13.4	
Net Profit Margin (P-E)	7.1	6.1	6.2	60.0	15.2	(2.8)	5.7	8.8	2.1	21.8	11.8	14.7	23.2
Capacity Utilization	10.8	10.8	38.7	34.1	33.0	29.3	32.1	38.3	20.1	11.8	11.8	30.7	10.8
Stock Ratio	21.8	20.2	21.5	37.0	24.1	19.5	23.0	23.0	25	12.1	24.0	31.0	25
Debt Ratio	40	51	50	28	53	7	14	80	6	2	27	24	11
Asset Turnover	0.75	1.01	1.00	1.01	0.76	1.00	0.77	0.98	1.00	1.42	1.17	1.32	1.63
Equity Ratio	1.1	1.28	1.01	23.51	1.10	1.16	0.9	1.00	1.02	2.7	1.93	1.00	1.11
Cost Equity Ratio	1.15	1.21	1.18	1.11	0.75	0.99	1.00	0.97	0.97	0.60	0.95	0.91	1.14

Source: Author's calculations

TABLE 2

RETURN ON CAPITAL

	1980	1981	1982	1983	1984	1985	1986
1. Paper Corporation	0.311	0.010	Nil	0.33	2.2	8.0	1.5
2. Tyre Corporation	36.64	19.10	69.7	0.8	18.8	40.0	14.0
3. Ceramic Corporation	23.0	18.0	4.0	0.1	Nil	2.0	3.4
4. Salt Corporation	32.5	43.5	31.0	30.0	27.2	15.5	2.5
5. Mining & Mineral Dev. Corpn	40.97	45.6	8.0	4.0	Nil	13.8	9.6
6. Mineral Sands Corporation	34.0	0.14	-	6.3	5.6	32.8	32.9
7. Lanka Porcelain Corporation	42.8	0.54	72.0	67.0	14.0	23.6	N.A.
8. Oxygen Ltd	0.02	16.0	24.0	0.3	2.1	3.9	7.7
9. National Packaging Materials Cor.	Nil	Nil	Nil	Nil	Nil	closed	closed
10. Tobacco Corpn	12.2	Nil	Nil	Nil	Nil	closed	closed
11. Gas & Water Company	16.21	Nil	0.65	N.A.	N.A.	N.A.	N.A.
12. Plywoods Corporation	22.74	11.8	0.07	Nil	Nil	Nil	Nil
13. Petroleum Corporation	50.7	Nil	Nil	46.0	N.A.	N.A.	N.A.
14. Cement Corporation	31.8	0.01	1.0	1.7	N.A.	N.A.	N.A.
15. Hardware Corporation	4.7	Nil	Nil	Nil	Nil	Nil	5.8
16. Paranthan Chemicals Corpn	Nil	4.2	Nil	Nil	Nil	14.0	31.6
17. Leather Corporation	15.5	8.9	9.0	12.0	5.5	2.1	4.3
18. Lanka Wall Tiles	21.1	N.A.	23.0	N.A.	N.A.	18.2	N.A.

Source: *Review of Activities MISA*

principles. Most of the PEs have delayed in handing over their accounts, although this is a standing requirement according to the Finance Act of 1971.

There is a tendency in some PME's to show accounting profits even if the organisation has not made any trading profits. There are instances where some PME's attempted to treat income received from non productive activities as extra revenues in their accounts. Recently one PME showed trading profits by taking into consideration the dividend received from its subsidiary. The correct position is that this organisation has made a loss on production and trading. Thus the Financial Managers have periodically attempted to show a rosy picture by manipulating figures. Another case in point is a PME which valued its stock of finished goods at current market price but not at cost and showed a large amount of profits. These PME's have to pay 50 percent of their profits as taxes even though they have not genuinely made profits; but this may be seen as a measure of creative accounting. In some

such cases their liquidity position was so bad that they had to raise an overdraft sometimes to pay taxes. Therefore creative accounting is always not helpful. It is a clear symptom of business failure.

Requests are sometimes made by PME's to revise the import tariff structure in order to increase prices of finished goods. These may be symptoms of failures. In most cases, PME's appeal for an increase of import duties on their manufactured products because they have increased overhead costs and paid unusually high prices for their raw material inputs due to bad planning. These PME's are trying to conceal their inefficiencies and place the blame on imports. Similarly some PME's submit requests to the Ministry to increase the prices of their products indicating that revision is necessary in view of various statutory payments such as salary increases, allowances, etc. But very little attempt has been made to minimize cost of production or change the product mix or decrease wastages to accommodate such additional expenditure.

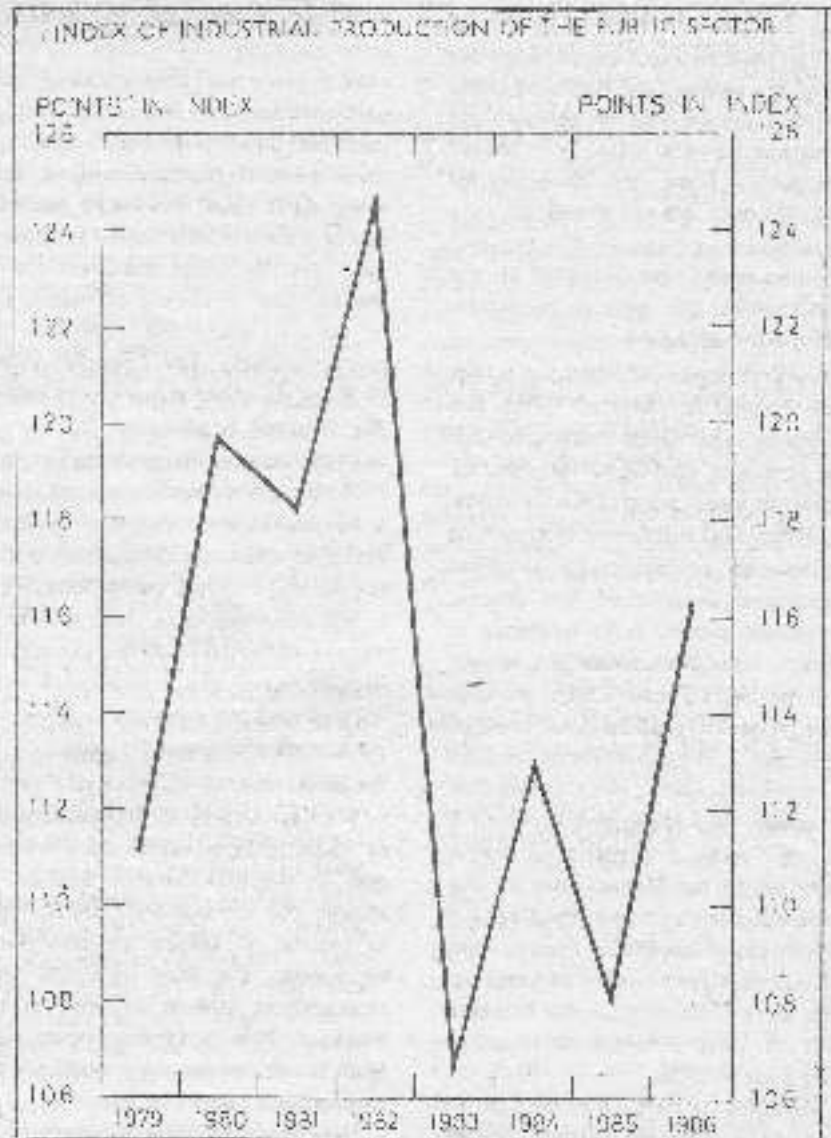
Lack of planning and stock control is one of the biggest burning issues of PME's in Sri Lanka. Such Managers who are in charge of product planning and inventory control are not taking sufficient interest in the Public Sector. Sometimes they keep raw materials in stock for more than 2 years although in fact 4-5 months stock is more than sufficient to continue production without interruption. These Managers who are responsible to maintain stocks in line with product planning are not monitoring inventories regularly in order to avoid over-stock which results in creating a serious liquidity problem to PME's. Similarly planners in the production division do not design their product mix according to market intelligence reports or market trends and continue the existing product mix to produce out dated goods which will not be in demand as expected by them. Such a situation may end up with higher accounting profits and in turn worsen the problems of liquidity. The above situation generally does not occur in most private sector establishments as they have systematic plan-

ning particularly in inventory control and designing of their product mix for the future.

There are also some non-financial symptoms. Recently a foreign team of experts visited one of our PMEs and criticised that general house keeping of the factory was very unsatisfactory. This could lead to various problems making it not conducive to discipline, producing high quality products, improving productivity and minimising wastage. House keeping is very essential specially in the factories to maintain high quality products. This problem can be easily controlled by the Factory Managers without incurring any additional cost to the PMEs, to achieve high quality and productivity. This is one area where Managers in the Private Sector show more concern to their responsibility compared with the Public Sector Managers. However, it must be mentioned that the morale of some public sector Managers has deteriorated during the past few years mainly due to the less attractive salaries and other financial benefits they receive compared with the Private Sector. It is necessary for the Top Managers in PMEs to avoid problems of this nature which can be monitored for better management.

The issues discussed in the above paragraphs were earlier considered not as important simply because Government policies were biased towards the continuation of PMEs, even though they were not making reasonable profits. As a result many Public Enterprises continued to fail and make no progress, and kept demanding further financial assistance in the form of subsidies and grants from the Treasury.

In 1977 with the liberalisation of imports the PMEs had to face stiff competition from imported goods and the locally manufactured products marketed by the private sector industries. With the change of Government policies to compete with the imported and local products of the private sector PMEs were requested to operate on the same lines as the private sector industries.



Causes of Failure:

Causes of failures are the real burning issues of PMEs. If solutions are not found to these issues, total collapse of PMEs is inevitable. The main cause for almost all the failures are mismanagement. As "Isador Barnash" stated in his famous book "Great Business Disasters" the future of any enterprise is in the hands of its managers.

"Corporations are managed by men and men never forget manage Corporations to suit themselves. Thus Corporate calamities are calamities created by man. The basic cause of the business disaster is greed, human greed,

simple and unadulterated. In most cases, the greed crossed over the fine into corruption". Hence the shareholders should be vigilant and closely follow the activities of the Management team to ensure the enterprise will not be led to the path of destruction.

One main rule has been one of the causes of failures in some PMEs. If the Board of Directors of the PMEs is not a balanced team, the Chairman can easily assert authority and run the enterprise according to his wish. It is observed that in some PMEs most of the Directors attend Board Meetings without studying Board Papers fully and try to understand problems by listening to the discussions. Such Directors

pave the way for one man rule in PMEs. Thus an experienced, knowledgeable and enthusiastic Board of Directors is a prerequisite for efficient management of PMEs. Unlike in the private sector firms, the Directors of PMEs do not hold any shares, they are only a Board of Trustees. The Trustees can undermine the interest of the share holder the general public by having one man rule.

Another cause for failure is the weak finance function of PMEs. Accountancy information relating to cash flow forecasts, costing systems and valuation of assets are not readily available. PMEs find difficulty in obtaining services of professionally qualified accountants because of low salaries. No reward system is in existence in PMEs to encourage managers to perform better. In most PMEs, management of working capital is not conducted properly. High inventories are built up. Prompt action is not taken to deliver goods. The Marketing function is also very weak. No marketing plan is presented to the Management for discussion at the meeting of the Board of Directors of most PMEs. Procurement procedures have to be streamlined. Thus there is much room for improvement in various functional management areas in PMEs.

Managers of PMEs are not used to adopt to a changing political, social, economic and technological environment because of their limited autonomy. Unlike their private sector counterparts, the Managers in PMEs have to follow a stringent procedure to obtain their requirements and for disposing of their finished products. There is no room for negotiations. They have to implement decisions taken by external agencies. Hence it is difficult for them to adopt to a changing environment.

There are some specific causes for the failure of PMEs. Some of these causes are called historical mistakes because the present management have nothing to do with them. For example, the location of factories far away from the source of raw material supply. The cement factory in Galle, the

woodwork Complex at Salawa are some examples. Sometimes the PMEs have to carry over large stocks of spare parts because they were requested to purchase three years requirements of recommended spares. Some of these spare parts have not been used for nearly a decade. Also some vital spare parts are no longer manufactured in the country of supply of machinery. In such an event the machinery becomes obsolete. The Corporation has to maintain itself somehow to deliver the required production. No preventive maintenance is conducted in most PMEs due to numerous reasons. There is no additional production line in the PMEs to continue production during the overhaul. Hence maintenance work is not done regularly. Also due to financial difficulties PMEs cannot undertake preventive maintenance work on a phased out programme. These are the Corporations specific issues.

Remedies

We have examined the burning issues of PMEs in detail. What are the remedies. In the first instance we have to change the management team, if the symptoms of failure are continuing to appear. We may have the best management system adopted in the particular PME but if the management team is not competent enough the desired growth cannot be achieved.

Secondly, we have to correct the defects in the accounting system in PMEs. This has to be done carefully in consultation with experts. Introducing a modern, cost effective data base accordingly becomes a priority item in PMEs so that defects in the accounting system can be corrected and a scientific analysis of data can be undertaken.

Thirdly, we can introduce Corporate Planning - strategic planning in PMEs. This planning process will lead to rationalisation of activities of the enterprises. The Corporate Plan indicates the expectation of share holders, expressed in terms of a desired growth rate and profitability ratios. The Corporate Planning process encouraging Managers to observe changes in the en-

vironment more closely. They have to devise strategies to keep the enterprise in harmony with a changing environment. Also, a continuous systematic Corporate Plan monitoring system will clearly identify the symptoms of failures and causes for them very early. So the Managers will have sufficient time to revise their strategies to suit the changing situation.

If PMEs continue to fail despite the introduction of these remedies then the very existence of the PME is doubtful. It may have to be closed down or sold to the private sector. The private sector may have to develop a completely new venture out of the PME to make it a viable entity. They cannot run the PMEs in the existing form because you do not get unique Managers in the private sector to perform miracles and make it viable.

I have my reservations about the claim that Managers of the Private Sector have special abilities and they can do wonders. In fact the successful private sector firms such as CTC and Lever Brothers achieve their laudable success not exclusively due to management efficiency. They are provided with very high tariff protection. If the present tariff protection at 300 percent is removed the CTC cannot have a trade monopoly. They have to be content with a market of 40-70 percent. Similarly Lever Brothers also enjoy a bigger market share because of 60 percent duty protection. If these duties are removed they have to compete with imported products strictly. Hence we cannot conclude that the private sector possesses Managers with special capabilities to tackle various problematic situations in PMEs. If Managers of PMEs are allowed to operate in a similar environment as in the private sector they would perform equally well if not better. I have presented the burning issues of PMEs and stated that these issues have to be tackled promptly to ensure smooth operation of PMEs; and also presented some remedies to these problems.

AGRICULTURE

Drop in paddy production affects national growth performance

The growth rate in Sri Lanka's Gross Domestic Product was down to 4.3 percent in 1986 from 5.0 percent in 1985. The sector whose performance was the main cause for this drop on overall growth last year was the agricultural sector and the crops which showed negative growth were tea (-1.3%) and paddy (-2.5%). The growth performance in other crops of the agricultural sector could not help, and the total sector's growth rate came down from 8.5 percent in 1985 to 2.8 percent in 1986. Paddy production in 1986 recorded a decline of 2.5 percent to reach an estimated 2.6 m metric tons (24 m bushels of paddy or 1.8 million metric tons of rice) from the highest ever level achieved in the previous year. However, paddy production in 1985 registered an increase of 6 percent over the 2.4 million metric tons produced in 1984.

Last year's 2.5 percent decrease resulted from a drop in paddy production both in the Maha and Yala seasons though it was mainly from the Maha of 1985/86. This drop in paddy production in 1986 was entirely reflected in the paddy growing districts of the North and Eastern provinces. There was also a drop in net harvested area resulting mainly in a decrease of the area cultivated. According to records low output in these areas was the cause for the decline of about 20 percent in the area cultivated; in addition to a higher incidence of crop failure and the breach of the Kantalae dam which affected paddy production in the Trincomalee district. Despite the increase in production and

cultivation in the other areas during the Maha season there was an overall 3.6 percent drop in production. There was further expansion in the area under cultivation and also increased fertilizer application and greater use of improved seed varieties, but still production in Yala remained at the same level as in the other seasons. The main reason for the decline in the average yield was the adverse weather conditions in the latter part of the year. The decline in Maha production last year was partly offset by a significant expansion in production in particular areas of the country. For instance, the highest paddy production was recorded from Kurunegala District (266,000 MT) followed by Anuradhapura (159,000 MT), Polonnaruwa (143,000 MT) and Ampara (135,000 MT) districts; and the Mahaweli G area (97,000 MT). The total share of these four Districts and the Mahaweli G area in overall paddy production in Maha 1986 was 47 percent. In Yala 1986 the highest paddy production was recorded from Ampara District (171,000 MT) followed by Polonnaruwa (100,000 MT), Kurunegala (63,000 MT), Hantantota (53,000 MT) and Batticaloa (45,000 MT) districts. These 5 districts produced about half the total paddy production of Yala 1986.

Average yield in 1986 was 3,497 kgs. per hectare or 68 bushels per acre. This was an increase of nearly 1 percent over that of the previous year. Average yield in Maha 1986 increased by 2.6 percent to 3,585 kgs and this increase was mainly a result of the increase in productivity in areas under

minor irrigation. In Maha 1986, productivity in areas under minor irrigation had gone up by 4 percent in minor irrigated areas while there was no significant change in that of major irrigated areas. Productivity in rainfed areas had dropped by 9 percent. In Yala, 1986 productivity had decreased by 1.3% to 3,287 kgs due to the drop in productivity mainly in areas under major irrigation and in rainfed areas. The drop in productivity in areas under major irrigation and in rainfed areas were nearly 4 percent while the drop in productivity in areas under minor irrigation was marginal (0.5 percent). The area cultivated in 1986 increased by 1.6 percent to 855,000 hectares (4.6%) under major irrigation schemes was 198,000 hectares (22%) under minor irrigation schemes and 287,000 hectares (32%) under rainfed areas.

Issues of fertilizer for the paddy sector in 1986 had increased by 12 percent to 219,000 metric tons in 1986 and this increase was more significant in Yala season than Maha. Total issues of fertilizer in Maha 1986 increased by 5 percent to 126,000 metric tons while this increase in Yala 86 was 24 percent to 93,000 metric tons. As total fertilizer issues increased by a higher rate than increase of gross extent sown in both Yala and Maha 86, fertilizer issues per hectare in the paddy sector also increased in that year. Fertilizer issue per sown hectare was 245 kgs, which was a 11 percent increase over the previous year. Fertilizer issues per sown hectare in the paddy sector in Maha 86 was 227 kgs and this was 274 kgs in Maha 86. The increase in fertilizer issues in Maha 86 and Yala 86, was 8 percent and 14 percent respectively.

PRODUCTION, AVERAGE YIELD, EXTENT HARVESTED, EXTENT SOWN, ISSUE OF FERTILIZER AND INSTITUTIONAL CREDIT IN PADDY SECTOR 1984-1986

Item	Unit	1983/84			1984/85			1985/86		
		Maha 83/84	Yala 1984	Total 1984	Maha 84/85	Yala 1985	Total 1985	Maha 85/86	Yala 1986	Total 1986
1. Production	'000 M.Tons	1,353	1,060	2,413	1,751	910	2,661	1,892	800	2,692
2. Average yield per hectare	Kgs.	3,031	3,148	3,079	3,498	3,243	3,464	3,696	3,287	3,497
3. Net extent harvested	'000 Hect.	451	336	787	498	270	768	469	271	740
4. Gross extent harvested	'000 Hect.	508	377	886	688	306	994	527	308	835
5. Gross extent sown	'000 Hect.	806	584	1,390	889	312	1,201	555	240	795
6. Fertilizer issued	'000 M.Tons	113	72	185	120	75	195	126	93	219
7. Institutional Credit granted Rs Mn		136	40	176	82	50	132	100	89	189

Source: Department of Census and Statistics National Fertilizer Secretariat Central Bank of Ceylon

The growth-leading sectors in the economy after 1977 have been mainly paddy, private manufacture, construction and services. Production of paddy had increased both as a result of the increase in area (16% between 1977 and 1985) and yields (42% between 1977-83 and 1983-85). Considering the growth rates of GDP in selected sectors, it may be observed in the agricultural sector that for paddy the increase was only 2.5 percent for 1970-77 as against 5.0 percent for 1978-86. Modern techniques such as more intensive use of fertilizer (use of fertilizer in rice production increased by 85% over the eight year period upto 1983-85) and improved seeds in response to better incentives, together with comparatively favourable weather conditions, were responsible for the increase in yields. The result was that rice production grew at a yearly rate of 5 percent over 1978-86, bringing down rice imports from over 30 percent of rice consumption during 1970-73 to about 5 percent in 1984-86.

There is no doubt that the higher investment in paddy production generally brought in anticipated returns over the eight years after 1977. A major investment in this regard was for agricultural production in the Mahaweli areas. However, returns from the massive capital expenditure since 1978 have been considered only "modest" by the World Bank since the economy has not benefitted, to the extent expected, from the resources ploughed in for agriculture purposes. This situation, however, has resulted mainly from the increased supply of rice in the international market and consequent lowering of international prices (thus, the ratio of domestic producer prices for rice to those of the international prices are as follows:

1978	-	87%
1979	-	79%
1980	-	92%
1981	-	104%
1982	-	111%
1983	-	114%
1984	-	120%
1985	-	123%
1986	-	141%

The above table makes it clear that by 1986 domestic prices were well beyond international prices.

POTATO TURNED INTO A SUCCESSFUL COMMERCIAL CROP

Local potato production has more than doubled over the six years from 1979 to 1985. It is estimated that nearly half a million tons of various types of yams and tubers such as potatoes, 'thunmas-ala', 'kiri-ala', manioc and sweet potatoes are consumed in Sri Lanka annually, according to an ARTI survey. This survey reveals that the alien potato has gained such popularity over these years that it has resulted in its annual production doubling during the last decade to over 100,000 metric tons in order to meet local demand.

Increased quantities of this yam are consumed by Sri Lankans, particularly in the urban sector, where per capita consumption is about 9 kilograms per annum, as against a national average of about 3 kilograms. However, retail prices have also more than doubled during this period from Rs.6/67 per kg. in 1979 to Rs.15/67 per kg. in 1985. (See table).

are engaged in potato farming and its related activities.

The total area under potatoes is estimated at over 8,000 hectares. Badulla, Nuwara Eliya and Jaffna districts account for 66, 22 and 11 percent of the area, respectively. There is a wide variation in the quantity produced per acre, and in the quality of potatoes produced in these areas. Though the climatic conditions do not permit production of the type mostly preferred by consumers, the Jaffna farmer produces about 12 m.t. per acre. Around 8 m.t. per acre is obtained at Nuwara Eliya and 3½ m.t. per acre at Badulla. Potatoes from Nuwara Eliya are considered the highest in quality and they always fetch higher prices at the market compared to Welimada (Badulla) and Jaffna varieties. At current market prices the total potato crop is estimated to be worth over Rs.750 million.

CULTIVATED EXTENT, PRODUCTION AND IMPORTS OF POTATOES (1979-85)

Year	Land Extent (ha)	Production (mt)	Imports (mt)	Reti Prices (Rs/kg)
1979	4,212	52,468	7,687	6.67
1980	5,217	76,656	11,071	—
1981	4,648	63,385	1,000	—
1982	5,702	65,156	—	—
1983	6,636	82,494	861	12.11
1984	7,912	98,412	214	15.53
1985	8,352	118,235	—	15.67

Source: Ministry of Agriculture and Agricultural Development,
Department of Commerce and Central Bank of Sri Lanka.

The ARTI study indicates that potato farming has brought much relief to hard pressed upcountry vegetable farmers, who quite often suffered mainly due to depressed prices and low profitability of their vegetable production. When potato imports were banned in May 1967 many businessmen also ventured into commercial farming of potatoes and infused a degree of capital investment which has further intensified the activities in this area. As a result land values in these areas increased tremendously. Currently over 25,00 people

The cost of production of potatoes is considered high, so that the average subsistence farmer finds it difficult to take to cultivation of this crop. Most of them lease out their lands or plant only a small portion of it. The current cost of production per acre varies between Rs.76,000 at Badulla to about Rs.21,000 at Nuwara Eliya. Nearly half of it goes for seed potatoes. The Nuwara Eliya farmer incurs high expenditure on fertilizer and labour, which is 26 and 24 percent of his cost of production, respectively. This could be one reason, apart from the agro-

climatic factor, that enables him to produce the best quality tubers.

The Baniula farmer uses the minimum quantity of fertilizer compared to the other two districts. He also utilizes marginal highland for potato cultivation. Thus the productivity of potato lands in this area is generally low. However, it is the Baniula potatoes that fetch the lowest prices, perhaps due to their poor cooking quality.

The quantity of seed potatoes required per acre is around 1 metric ton. The total seed requirement of the country could be in the region of 18,000 metric tons. About 4/5 of the seeds are currently produced locally. (Farmers themselves produce about 3/4). The balance is imported. However, government programmes are an-

dered to increase seed potato production. In addition, successful experiments have been carried out by the Department of Agriculture to plant potato seeds, which could save a considerable quantity of potatoes for consumption, while reducing the cost of production. The Department's research stations at Seetha Eyya (467 ac) and Meethirana (135 ac) are the most important seed producing farms.

The production of potatoes in Sri Lanka has been strongly influenced by the interplay of two countervailing factors, namely:

- (i) A regular shortage of quality domestic seeds and the dependence on imported seeds,
- (ii) Government's decision to reduce foreign exchange expenditure on

imports through increased seed production.

Considering that an average potato farmer spends nearly 50 percent of his production costs on seeds, it is not difficult to understand the gravity of the problem. The agitation of the potato farmer has therefore been justifiable. Almost every season the problem of seed potatoes surfaces and the media takes it up as an important issue. However, remedial action seems to be quite slow. The logistics involved in producing seed potatoes are entangled in a web of problems. Currently, most of these problems are critical for both the cost of production and the difficulties experienced in producing seed potatoes.

Most of the imported seeds are

Building Better Potatoes:

Research at CIM

Charles Darwin noticed the extraordinary adaptability of the potato in his *H.M.S. Beagle voyage* in 1836:

"It is remarkable that the same plant should be found on the north mountains of Central Chile, where a drop of rain does not fall for more than six months, and while the fertile forests of the southern islands."

Native to the highland regions of South America, the potato has spread to 130 countries since it was first discovered and taken to Europe by the Spaniards. In the next 20 years, potato production in developing countries has outpaced growth rates of all other major food crops. Consumption is doubling every 10 to 15 years: every 8 years in East Asia, Southeast Asia and China; now produce over 40 per cent of all tubers in the developing world.

The potato is highly nutritious. It produces more edible energy and protein per hectare than practically any other crop. It is also highly adaptable, thriving in over a dozen different climates in developing countries. Its growth cycle is considerably shorter in the tropics where harvest can begin as early as 50 days after planting. In non-tropical climates an average of at least 150 days is often required to attain maximum yield.

To help explore the full potential of the potato as a food crop for developing countries has been the task of the International Potato Center (CIP), based in Lima, Peru. It was established in 1971 by the Consultative Group on International Agricultural Research (CGIAR).

CIP tries to bridge the gap in potato research and development capabilities bet-

ween the tropics and subtropics and its northern latitude countries. Its research has ten thrusts and is organized in seven departments: taxonomy, breeding and genetics; pathology; entomology and nematology; and physiology.

The ten research thrusts are:

- Maintenance and utilization of unexploited genetic resources
- Production and distribution of advanced breeding material
- Bacterial and fungal diseases
- Potato virus
- Integrated pest management
- Warm climate potato production
- Cool climate potato production
- Post-harvest technology
- Seed systems
- Potatoes in developing country food systems

CIP's horizontal relationship with national programmes has also resulted in a flow of expertise from these programmes directly to other countries. This, for example, has been the case of the Delta area of Viet Nam, where farmers obtained minimum of facilities and know-how for the first time applying tissue-culture techniques on a commercial basis to generate planting material for seed and table potato crops. This experience was shared with other Southeast Asian countries through a CIP-Indonesia workshop in 1984.

Farmer-back-to-farmer model

CIP's experience in the development and dissemination of seed storage technology led to the formulation of the "farmer-back-to-farmer" research mode, which rests on the basic philosophy that successful

simplex interdisciplinary research must begin and end with the farmer, farm household, and community. The mode is now being looked at with interest by agricultural policy makers and development specialists working in other areas.



Stressing participatory research, it involves at least three distinct groups, each with their own perception of reality: social scientists, technologists, and farmers or other clients. Each view of reality may be considered true in and of itself, based on a group or individual's relationship to the situation or task.

Technologists are under strong pressure by donors, administrators and colleagues to produce a better technology that works and is adopted by farmers or consumers. Social scientists play a cultural broker's role, articulating their understanding of the farmers' situation to colleagues from biological sciences. Combining the triangle is the answer, the one finding the position but who does not resolve a question completely due to "salesmanship's handicap".

Farmers live in only a technical and a social world based on agriculture; researchers simply study the world but do not have to live by the consequences of farm decisions.

BY OPERATIONAL MODEL

issued to seed potato producers by the Department of Agriculture. The small farmers appear to be feeling the impact of this problems most. Their frustrations are generally directed towards influential farmers who get the best of benefits. There are also small farmers who obtain their own requirements from the Department and sell their seed potato to large scale farmers. Many of them never engage in potato cultivation as such, but contribute to the distortion of the entire distribution system.

In recent years the average net income per acre was: Nuwara Eliya Rs.31,000, Badulla Rs.13,400 and Jaffna Rs.22,200. Hence, though the cost of production was high, potato has become one of the most profitable agricultural crops in the country.

Over 90 percent of the potatoes produced in the country are traded by the private sector. Colombo and suburbs being the major markets, most of the produce is sent to commission agents in the Pettah.

According to the seasonal price index, there is a considerable seasonal fluctuation. potato prices are low in February and March and thereafter in September, October, and November. The prices are highest in June and July at which time there is also a vegetable scarcity. Retail prices have varied, according to supply position, between Rs. 15 and Rs.20 per kg in recent years.

Caution would have to be exercised when increasing potato cultivation without giving due consideration to existing demand. Over production may depress prices and adversely affect the farmer.

It is necessary for some organisation to educate farmers on post harvest activities, which should begin with the correct maturing time that fetches the best price for potatoes. Another important aspect is increasing of storage facilities, particularly in areas such as Nuwara Eliya and Welimada. This needs more research, particularly in the area of food preparation and technology, which could help the farmer who could secure better prices by staggering supplies to the market and benefit from high prices during lean periods.

S.L.T.

FOREIGN NEWS REVIEW

UNCTAD VII

A full UN Conference on Trade and Development convenes once again after four years. Titled UNCTAD VII, these major sessions, at which representatives of 168 member states will gather, are being staged in Geneva from July 9-13. UNCTAD has continued to pursue its objectives of promoting international trade, particularly that of developing countries, for over two decades. Ever since the first major conference took place in 1964 and Raul Prebisch produced his visionary plan for multilateral cooperation in a report titled "Towards a New Trade Policy for Development", which gave a new perspective to the fields of international economic relations and UN activities, new initiatives were launched in favour of the Third World in the spheres of trade and development.

In the 1970's the need for multilateral co-operation in trade and development grew even more urgent and Sri Lanka's Gamani Corea, as Secretary General, kept up the conviction that "although there was no comprehensive agreement on the substance of problems or on the implementation of decisions, these Sessions still demonstrated the political will of the international community to negotiate certain key issues". From Nairobi in 1976 to Manila in 1979 and Belgrade in 1983 this North South Dialogue continued unabated with much hope springing from the Integrated Programme for Commodities initiated around the time of the Fourth Sessions in 1976. But as the 'Economic Review' has commented on the occasion of each of the UNCTAD sessions "The North will go along but not concede what the Group of 77 demands and the only agreement finally arrived at is that the conference reconvenes...." By 1987, and UNCTAD VII, it appears that even covert support was not fully forthcoming; and in October 1986 when UNCTAD's Trade and Development Board adopted a decision containing

the provisional agenda for UNCTAD VII there was no unanimity. Prior to the adoption of this decision, the representative of United States requested that the Board vote on it and announced his delegation's negative vote on the agenda. This position of the US delegation was duly recorded.

The provisional agenda set out the programme for UNCTAD VII in the following terms:

"Revitalizing development, growth and international trade, in a more predictable and supportive environment, through multilateral co-operation: Assessment of relevant economic trends and of global change, and appropriate formulation of policies and measures, addressing key issues in the following interrelated areas: (a) resources for development, including financial, and related monetary questions; (b) commodities; (c) international trade; (d) problems of the least developed countries"

The current crisis in each of these four main areas was summed up in UNCTAD reports as follows:

Restructuring Processes

In developing countries the policy of adjustment is more clearly connected with the overall development process and seizing the opportunities for development which changes in the world economic environment offer. Unlike the developed market-economy countries or socialist countries, developing countries do not have any collectively accepted comprehensive guidelines on industrial development strategy and structural adjustment policies beyond the broad aims of securing greater access to the external markets and increasing their selfreliance.

The severity of the problems facing

the world economy has meant that many developing countries have sought the assistance of external international agencies in meeting their immediate balance-of-payments needs. This assistance has been rendered on conditional terms, and the "conditionality" attached to the lending has shaped the nature and content of the adjustment programmes adopted by the recipient countries. The common thread running through the various structural adjustment programmes is the premise that a properly functioning market economy experiences few market failures and that existing market imperfections are mainly due to policy interventions.

Outlook for Commodities

On the whole there has been a growing maladjustment, exacerbated by the accumulation of stocks, as between demand and supply of primary commodities to which both developing and developed countries have contributed.

In the short term, the expected level of economic activity in key markets provides the strongest determinant of commodity prospects. Most commodity prices are likely to experience further downward pressure in view of the expected continued slow growth rate of developed countries as well as other factors. If the World Bank's estimate of 2 percent GDP growth in 1987 for the industrialized countries is borne out, the level of economic activity is likely to have a downward impact upon the prices of all primary commodities, except gold, silver and tin. Longer term commodity prospects are much more strongly influenced by structural factors on both the demand and the supply sides.

The Debt Question

The emergence of widespread inability of developing countries to meet debt service as originally scheduled has been the salient characteristic of international finance in the 1980s. For debtor countries, growth and develop-

ment prospects in both the immediate future and the longer term will be importantly influenced by the degree of success in addressing debt problems, and the characteristics of the measures deployed to that end. For creditor countries, the recovery of their export markets, the health of individual domestic financial institutions, and perhaps of the banking system itself all depend on the ability to arrive at viable solutions. Rarely, if ever, have the stakes in resolving financial difficulties of developing countries been so high for all concerned.

Least Developed Countries

Among the developing countries the least developed countries (LDCs), with the lowest levels of per capita income in the world, are particularly handicapped and ill-equipped to develop their domestic economies and to ensure adequate living standards for their population. Their average GDP per capita is slightly higher than \$ 200, which is less than one quarter of that of the developing countries as a whole and only about 2 per cent of that of the developed market-economy countries. A high proportion of their population lives in conditions of acute subsistence. Average agricultural productivity is less than one half that of other developing countries. Only a very small proportion of cultivated land has assured irrigation facilities. Moreover, most least developed countries suffer from one or more important geographical or climatological handicaps, such as land-lockedness (18 countries), coastal insularity (8), drought and desertification (22) and high exposure to disasters such as cyclones, floods and earthquakes (9 in 1984-1985 alone).

The above-mentioned indicators, useful as they are for ascertaining the socio-economic conditions which prevail in LDCs, merely illustrate the surface of a problem which is rooted in profound structural handicaps and in asymmetries in international economic relations. Both of these features militate against the ability of these countries to effectively exploit their economic potential and thus attain minimum adequate standards of living.

COMMON FUND

USSR's joining brings closer Fund's entry into force

On July 13, the USSR announced that it would "join" the Common Fund and sign it during the current UNCTAD VII session. Ratification by the USSR would bring the total percentage of the Fund's Directly Contributed Capital to 64.84 percent. It (the Byelorussian Soviet Socialist Republic and the Ukrainian Soviet Socialist Republic followed suit, this would rise to 89.27 percent, leaving 1.4 percent to be met. This decision means that the long-awaited entry into force of the Common Fund Agreement is now within immediate reach.

The Agreement establishing the Common Fund for Commodities will enter into force (i) after it has been ratified by a minimum of 90 States accounting for at least two thirds of the Fund's Directly Contributed Capital of \$ US 470 million; and (ii) after not less than 50 percent of the target of \$ US 280 million for pledges of voluntary contributions to the Second Account of the Fund has been met.

The pledges of voluntary contribution of \$ 256 million for the "second window" have been lying idle pending entry into force of the Agreement. The Common Fund emerged from UNCTAD IV in Nairobi in 1986 and has long been regarded as a key element of the UNCTAD's Integrated Programme for Commodities.

By July 14, 1987, the Agreement had been ratified by 94 States accounting for 69.06 percent of the Fund's capital (\$ US 272.68 million) and the total of announced pledges of voluntary contributions to the Second Account amounted to about \$ US 256 million. Thus, there remained only one condition for entry into force which has not yet been fulfilled, namely, that relating to the two-thirds share of the Fund's capital.

For most developing countries, including the least developed countries, one long-term development objective has been to diversify their economies so as to reduce their economic dependence on the production and export of primary commodities. While pursuing this aim, they have sought to broaden their export earnings from commodities and to protect their economies from the instability of commodity markets and from adverse terms of trade for commodities. The Integrated Programme for Commodities (IPC) was designed to respond to these concerns and to help commodity dependent developing countries to secure sufficient resources for the diversification and development of their economies.

COMMODITIES

COCONUT

Decline in Production and Earnings In first quarter of 1987

The continuous increase in coconut production over 1985 and 1986 was reversed in the first quarter of 1987, with the drought of the latter part of 1986 and early 1987 in the coconut producing areas taking effect. Coconut production in 1986, at 3,041 million nuts was the highest level of production for any year on record; but coconut oil production came down to 24,055 m.t. in the Jan - March 1987 period as against 45,070 m.t. in the same period in 1986. Desiccated Coconut (DC) however showed a slight increase in production to 14,059 m.t. in 1987 as against 13,022 m.t. in the 1986 period.

with exports amounting to 14,240 m.t. in the 1987 period as against 12,883 m.t. in the 1986 period. Earnings from DC were 28 percent higher and the average F.O.B. value per metric ton went up to Rs 17,881 in the 1987 period as against Rs 15,451 per m.t. in the 1986 period.

Coconut oil exports experienced a heavy fall during the Jan-March 1987 period, both in terms of volume and value. Average F.O.B. prices, however, showed a substantial increase; particularly in coconut oil in drums, which went up from Rs 10,420 per m.t. in the 1986 period to Rs 14,724 per m.t. in the 1987 period, U.S.A. and Canada

The coconut industry revived from a situation of low yields, heavy scarcity and poor exports during 1984 to prosper in the next two years at levels almost unparalleled in the annals of the coconut industry. Coconut production increased 52 percent in 1985 and 56 percent in 1986 as compared to that of 1984; while nut production went over the 3 billion mark in 1986. This increase in coconut supplies depressed price levels, though it also stimulated greater activity in the coconut processing and export sectors.

Meanwhile, earnings on exports of coconut production reached an all time high of Rs.3.2 billion in 1985; although it dropped 13 percent in 1986, despite the greater volume exported. This glut in supplies that commenced early in 1986 had been a global phenomenon and it engulfed markets for almost the entire range of oil and oil seeds, plunging price levels to a historical low in the international market in mid 1986.

During 1986 the government took certain fiscal measures to increase the competitive position of the industry and stimulate exports, such as reducing the duties payable on the export of copra and desiccated coconut and suspending the cess levies payable on coconut products.

Prospects for Sri Lanka's coconut industry in 1987, however, appeared gloomy once again, due to the severe drought conditions that coconut plantations faced in the latter part of 1986, and in the early months of 1987. The Marketing Division of the Coconut Development Authority has forecast that as a result of the severe drought conditions "the coconut industry is likely to face a severe supply situation in the months ahead and again in 1988. Adverse weather conditions apart, several other coconut producing countries are entering the export market in a big way and this will be a major factor to contend with for Sri Lanka, in spite of the excellent quality of our products".

G.J.

EXPORT OF COCONUT PRODUCTS
JAN - MARCH 1986 and 1987 VOLUME AND VALUE

PRODUCT	VOLUME (MT)			VOLUME (SL RS)		
	Jan/Mar 1986	Jan/Mar 1987	% change	Jan/Mar 1986	Jan/Mar 1987	% change
Coconut Oil	44,053	24,055	-75	326.88	94,005.00	-71
Desiccated Coconut	12,883	14,240	+10	189.07	254.54	+28
Copra	1,734	2,859	+66	20.67	23.27	+19
Fresh Nuts & Seed						
Nuts	3.4 mn	3.8 mn	+23	3.91	14.29	+58
Coconut Flour	1,500	6,600	+250	3.21	16.14	+320
Coconut Cream	47	77	+63	1.18	2.02	+74
Sub Total	372.39	182.60	-51	580.50	425.90	-27
Kernel Products in mn equivl						
Sub Total				170.12	281.88	+93
Non kernel products						
TOTAL VALUE OF ALL PRODUCTS				731.02	687.46	-9

In the first quarter of 1987 the volume of kernel products exported fell by as much as 51 percent over that of the same period in 1986. In million nuts equivalent the volume was 372.9 mn in Jan-March 1986 as against 182.6 mn in Jan - March 1987. The F.O.B. value of exports, however, dropped by only 27 percent from Rs 580.5 mn in the first quarter of 1986 to Rs 405.8 mn in the same period of 1987. But average F.O.B. values (per nut equivalent) were higher in the 1987 period, averaging Rs 2/22 in 1987 as against Rs 1/50 in 1986.

Highest earnings came in from DC,

continued to be the major buyers of coconut oil in 1987 while the main buyers of Desiccated Coconut were West Germany, U.K. and Holland.

In non-kernel products, however, there was 53 percent increase in export earnings, which went up from Rs 170 mn in the Jan-March 1986 period to Rs 281.7 mn in the 1987 period. Yet, total value of exports of all products in the 1987 was almost 10 percent less than 1986 period, going down from Rs 731 mn in Jan-March 1986 to Rs 667 mn in 1987.

BIOTECHNOLOGY — Need for a Rational Policy

Biotechnology has come to be regarded as the fastest growing industry in the world today. Its new inventions, according to India's Praful Bidwai, are "perhaps the greatest technological advances since the discovery of fire, and could totally transform major industries, agriculture, livestock breeding and forestry". The term 'biotechnology' covers a number of powerful techniques, many of them only some years old, by means of which life-forms can be manipulated and altered at the most basic level so that they develop some specific properties.

In an overview of the entire process and current developments, carried in a recent issue of the 'Times of India', Bidwai explained that today one could take genes (the basic material in an organism that contains the code for its reproduction and growth), split and splice them, graft them on to another organism and thus "manufacture" a new life-form, say a virus. Or you can clone a particular kind of super-cereal or super-vegetable with very high yields by using certain simple laboratory techniques, and then imbue it with such properties as you like for instance, drought and pest resistance or, equally, pesticide tolerance. Or you can make bacteria convert garbage directly into alcohol and to transform, say, metallic ores into metals. You can make powerful vaccines using ultra-cheap fermentation techniques. Or you can make bio-fertilisers, bio-pesticides and plant growth nutrients that will dramatically raise crop and forestry yields. And you can "fabricate" super-cows which efficiently digest any sort of muck and yield three times as much milk as the ordinary Indian buffalo.

All this is no longer in the realm of theory or basic science. It is already being commercialised. The bio-industries have by now absorbed a huge investment of the order of \$ 3 billion to 4 billion, or Rs.4,000 crores to 5,000

crores in research and development alone.

They are now putting out their products on the market. The biggest single breakthrough was represented by the dramatic entry of human insulin more than a year ago. That is now being followed up by a host of other products, from seeds and bio-pesticides to drugs, fruits and vegetables.

Biotechnology is no longer small business dependent on high risk venture capital. The West's 200 to 300 biotechnology firms are now being bought up indeed most have already been purchased by large multinationals in the agrochemicals, seeds, pharmaceuticals and oil industry.

There are growing fears, however, that just as these science-based corporations earlier mastered and monopolised the technology of making dyes, pharmaceuticals, plastics, synthetic fibres and petrochemicals, they are now absorbing the techniques of tissue culture, monoclonal antibodies and hybridomas, embryo manipulation and transfer and gene-splicing.

Bogvo Declaration

Earlier this year 28 leading scientists from nineteen different countries met in Bogvo France and expressed concern about the socio-economic impact of new bio-techniques on Basic Health and Agriculture in the Third World. They declared that biotechnology was a global issue, which could not be assigned such attributes as positive, negative or neutral. "Like any other technology, it is inextricably linked to the society in which it is created and used, and will be as socially just or unjust as its milieu. Therefore, we conclude that in today's world this most powerful new technology is more likely to serve the interests of the rich and powerful than the needs of the poor and powerless.

We fully recognize the potential of biotechnology to improve the quality

of humanity. But it is important to emphasize the risks and hazards associated with biotechnology, including serious and possibly irreversible health, safety, environmental and socio-economic consequences, as well as the use of such technology in biological warfare.

In agriculture, for instance, while biotechnology may promise to increase production and reduce costs, it is more likely to accentuate inequalities in the farm population, aggravate the problem of genetic erosion and uniformity, undermine life-support systems, increase the vulnerability and dependence of farmers and further concentrate the power of transnational agribusiness.

In health, for instance, biotechnology promises more effective diagnostic tools and new ways of preventing and curing diseases. However, the pharmaceutical industry is more likely to focus on the most profitable commercial opportunities and divert attention from basic health requirements".

This international forum in Bogvo also resolved that at a National level a dialogue be established to determine the real needs of society and the main requirements for a national biotechnology strategy based on these needs; the socio-economic and environmental implications of such a strategy be fully considered; the regulatory requirements for the safe testing and introduction of the technology be established and stringently enforced; the control over the technology be assigned to the public sector; and that the monopolization of the technology by private interests be resisted.

Plant Genetic Resources Centre

In Sri Lanka, the setting up of a modern national Plant Genetic Resources Centre, under the Department of Agriculture, is a positive step in this direction. Local and exotic germplasm has been exploited to improve rice, tea, rubber and coconut, but the same has not occurred for other crops. Sri Lanka's rich diversity of genetic resources are endangered by rural and urban development, pollution and over exploitation.

Valuable material in our genetic endowment, including medicinal plants and herbs, has undoubtedly been lost. It is estimated that a collection of cultivated and wild plant species in Sri Lanka would yield about 25,000 species, varieties, clones, strains, and ecotypes. Any delay in collection will mean permanent loss of priceless material.

The objective in setting up this Genetic Resources Centre is also to ensure and invest in Sri Lanka's genetic resources by preserving, evaluating and utilizing our indigenous germplasm.

These important resources will be a basis for breeding programmes to protect and improve cultivated plants, sustain and improve agricultural production, forestry and

dependent industries, and maintain a buffer against harmful environmental changes.

The need for preserving plant genes is more fully discussed in the accompanying note by the Coordinator of this programme locally, whilst two further discussions on the international situation are carried on pages 23-25.

Preserving Sri Lanka's plant genetic resources

S.D.G. Jayawardena

Botanical & National Coordinator Plant Genetic Resources Program

Since the dawn of civilization, Sri Lankan farmers have created a multitude of crop forms and a remarkable genetic diversity of crop species. We are heir to these traditional cultivars, going with their wild and weedy relatives.

While our cultural artifacts have incalculable value, crop genetic resources are invaluable to agricultural research and development. These genetic materials are the building blocks of our varietal development programmes.

During the last twenty years the outlook on the production potential of world agriculture has changed radically due to the introduction and distribution of modern high yielding cultivars. Many countries in Asia, including Sri Lanka, have increased their capacity to produce rice to a level far exceeding that achieved during the preceding 2000 years.

However these modern crop cultivars are vulnerable to pests and diseases, and possess limited adaptation to unstable environments. Studies made on the genetic ancestry of these cultivars have revealed extensive reliance on a few parental materials.

In most of these cases the material lineage has also been traced to a very narrow cytoplasmic source. To rectify this the genetic base of modern cultivars needs to be broadened by incorporating genes from diverse germplasm sources.

Available crop genetic resources are fast dwindling due to wide acceptance of modern hybrid varieties. Hence, the collection, conservation and evaluation of crop germplasm has been identified

as vital to future crop improvement in Sri Lanka.

Conventional breeding techniques cannot produce any further advances in crop yields. Additional yield increases are possible only through the application of biotechnology. Therefore, we need to develop an appropriate research base for the application of biotechnological methods to breeding, such as *in vitro* culture.

Progress in biotechnological aspects of plant breeding has been hampered by inadequate infrastructural facilities. The need for external funding to strengthen Sri Lanka's crop genetic resources programme and initiate biotechnological research was recognized.

Discussions were initiated with the Ambassador of Japan in Sri Lanka and a project proposal for assistance to develop appropriate research facilities was submitted to the Government of Japan for its consideration.

The establishment of a Plant Genetic Resources Centre is now a reality. This center will function as the hub of a national network to collect, conserve, evaluate and disseminate germplasm and information. It is being built and equipped at a cost of Rs.400 million and is entirely funded by the Government of Japan.

Investments in genetic conservation are justifiable only if the conserved materials are fully evaluated and used in varietal development programmes. The centre aims at developing a user-oriented strategy so as to integrate conservation and evaluation aspects with appropriate utilization programmes.

The essential components of the centre are low temperature seed storage repositories, laboratories for *in*

vitro preservation of vegetatively propagated crops, biotechnology, evaluation, and data management. Applicable green house, screen house and field facilities will be established. Ancillary components such as a conference hall, library etc. are also included.

The major activities of this centre are:

1. Exploration and acquisition of crop genetic resources.
2. Conservation of germplasm.
3. Characterization of germplasm using taxonomic, biochemical and other techniques.
4. Multidisciplinary evaluations for identification of genetic traits.
5. Documentation of genetic resource information.
6. Exchange of germplasm and information.
7. Interaction of emerging biotechnologies with conventional breeding in crop improvement programmes.

To ensure effective functioning of the center, a technical collaboration programme with Japanese scientists is envisaged. The ascendance of germplasm is already underway.

Over 2000 rice accessions have been collected and were duplicated at the International Rice Research Institute. The collection and characterization of germplasm of other field crops is currently being carried out with IBPGR/FAO assistance.

The implementation of this project will help Sri Lanka preserve its valuable plant genetic resources and develop suitable technology for germplasm enhancement.

Through these initiatives it is intended to generate the most important technology in agriculture, the production and release of appropriate crop varieties tailored to farmers' needs.

THIRD WORLD DEMANDS JUSTICE OVER SEEDS

Andy Crump

Third World nations are beginning to press for "farmer's rights" over their own genetic resources - in order to deflect a growing control by the industrialised world over the multitude of Third World seeds and crop varieties. Or so it emerged at a recent meeting of the Food and Agriculture Organisation (FAO) Commission on Plant Genetic Resources, which recommended the establishment of a new International Fund for Genetic Resources to help deal with the problem.

The demand is a simple matter of justice. Third World representatives argue. Third World farmers, who have selected and developed crops through continual use, should have similar rights to those enjoyed by companies and industrialised nations which develop new varieties rapidly through biotechnology, they claim.

The lack of such rights, together with fears of exploitation and of the unpredictable impacts of biotechnology, have caused some Third World nations to shut their doors to any kind of trade in economically important seeds or genetic material. But resources from the proposed new International Fund should help by allowing gene banks and conservation programmes to be established, especially in the Third World, with rights and control vested in the South.

According to the FAO meeting, the proposed fund which should be set up at the November meeting of the FAO general assembly would raise money through voluntary donations from governments, non-governmental organisations and individuals. The possibility is also being looked at of levying a tax on the seed trade, which is dominated by the rich North.

The problem the fund will tackle is becoming increasingly urgent, and has polarised the North and South. Most developing countries believe that the industrialised Northern nations have abused the unrestricted access to the

genetic resources of the South that they have traditionally enjoyed. With the advent of biotechnology, fears have been growing that commercial companies in the North will use genetic material collected from developing countries for breeding programmes, with the resultant 'improved' varieties being sold back to the Southern nations at significant profit.

The political vulnerability of the International Rice Research Institute (IRRI) in the Philippines has also worried Third World leaders. Currently, IRRI looks after 50% of the world's rice cultivars - but much of its rice germplasm collection is actually held in the United States. There, the Reagan administration has already barred the export of germplasm to Nicaragua and Libya, not on commercial but on political grounds.

Three years ago, the 'International Undertaking on Plant Genetic Resources' was adopted at an FAO meeting. Proposed by a group of Third World countries, it was adopted almost unanimously. The resolution proposed that germplasm, including patented seeds, should be common heritage and therefore freely available to all. The motion was passed with the United States being virtually alone in expressing opposition.

In November 1985, however, several key developing countries such as Brazil, Argentina and India, which earn large sums from their crops, began to express their doubts over the Undertaking, and the open access provision.

The concerns focused on the physical collection and storage of germplasm, coordinated by the International Board on Plant Genetic Resources (IBPGR). The IBPGR has so far initiated the collection of genetic resources in 50 countries, and has organised national committees to oversee germplasm collection in 25 others.

To date, developing countries have

supplied 91% of IMPGR's material. But the Third World currently holds less than one-third of all known genetic stocks. This is despite the fact that 21 of the International Board's 43 plant gene banks are actually sited in the Third World.

Germplasm held under the IBPGR's guidance is stored in gene banks owned by commercial companies or national governments. The FAO currently furnishes the Board's administration, but a network of international centres, known as the Consultative Group on International Agricultural Research (CGIAR), actually provides the Board's funding and technical policy.

Third World nations have little representation or influence on the IBPGR, and have consequently been urging the FAO to take more direct control of the Board, in order to protect their interests.

Yet the question of who will have control over global gene banks is far from being resolved, particularly to the satisfaction of Third World countries.

In Asia, Indonesia, Thailand and the Philippines have already established their own national agricultural biotechnology programmes, and the International Rice Research Institute (IRRI) has recently created an 'International Biofertilizer Germplasm Conservation Centre' at its Philippines headquarters. Promising microbial sources of plant nutrients will be evaluated, stored and according to IRRI-made available to researchers around the world from this centre.

These isolated initiatives highlight the need for a proper, lasting solution to the problem. A successful outcome will probably need to be based upon a new control mechanism for defining rights over global genetic material. The proposed Fund for Genetic Resources may provide the basis for such a mechanism.

PANOS FEATURES

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DIFFERENT COUNTRIES, DIFFERENT NEEDS

IDRC's view of plant breeders' rights

Over the years different forms of patent and copyright legislation have been enacted to protect the products of plant breeders' ingenuity and innovation.

The opponents of plant breeders' rights' rights (PBR) claim that whatever conventional methods of crossing, propagation, and selection are used, all of the genes involved occurred naturally and are therefore the common heritage of all mankind.

In 1983 a majority of the developing country members of the UN Food and Agriculture Organization (FAO) supported a resolution calling for worldwide access to all sources of germ plasma. (Germ plasma is a general term referring to any hereditary material including seeds, cuttings, whole plants, or cell cultures that can be used or multiply an organism). The developing countries claim currently that most of the world's germ plasma comes from their territories. It is a fact that few important edible crops are indigenous to North America for example, blueberry, cranberry, Jerusalem artichoke, pecan, and sunflower.

An added complication lies in possible future interventions by genetic engineers and other biotechnologists. Their business, broadly speaking, is to juggle the genetic makeup of living organisms. By transferring genes, they confer upon the recipient organism desirable traits that it does not naturally possess.

Biotechnology companies now appear to be seeking an extension of pro-

jective legislation. Their argument is that an organism modified by the introduction of a foreign gene is unlike anything found in nature, and is therefore as eligible for a patent as any other unnatural product or invention. They have gained hope from a patent granted to a company for a novel maize genotype produced through biotechnology. So there is now the added concern over what will happen if individual genes, as well as the plant life into which they are artificially introduced, become patentable.

Free Exchange of Germ Plasma

It would be unfortunate if the enactment of plant breeders' rights were to restrict the free international exchange of germ plasma. The developing regions, in which most of the world's food crops originated, should not be deprived of access to essential breeding and planting materials. To this end it would be advantageous if the comprehensive and definitive germ plasma collections are retained, protected, and distributed under the auspices of international institutions such as the International Board for Plant Genetic Resources (IBPGR). Subsidiary collections could be retained by national governments.

It is hoped that all released varieties, particularly those derived from germ plasma indigenous to developing countries, will also be made freely available to those countries. The issues relevant to licensed varieties are com-

plex and may call for revisions to international agreements such as the registration legislation covered by the Union for the Protection of New Varieties of Plants (UPOV), adopted by European countries in 1961.

Under the UPOV agreement, samples of released varieties can be made available for breeding, even when not available for multiplication. However, as breeding shifts to the private sector as a result of PBR, there is a danger that advanced lines and varieties with potential as parental material in developing countries will increasingly be locked up. Clearly this should be avoided. The continued and strong involvement of the public sector in plant breeding, even in countries that adopt PBR, may be one of the best ways to ensure free access to genetic resources. IBPGR remains the most effective mechanism for coordinating the international collection and protection of germ plasma.

The following paragraphs list a number of plant breeding issues that seem particularly important to IDRC's Board of Governors and management.

Appropriate for Some

The adoption of PBR by developing countries is a matter of individual choice. PBR are probably appropriate for some countries and could help stimulate plant breeding activities with clear advantages to local farmers. In other countries, PBR might only exacerbate an existing situation of disadvantages.

Development agencies can help by providing impartial information on the advantages and disadvantages of PBR. Developing countries must not be pressured into establishing PBR by UPOV signatories, transnational companies, or others.

In countries with strong indigenous plant breeding programs, there may be clear advantages in adopting PBR. Indeed, several have already done so. In such cases, it is the policy of IDRC to cooperate, while at the same time stressing the importance of continued public sector plant breeding.

ACRONYMS

PBR	— Plant Breeders' Rights
CGIAR	— Consultative Group on International Agricultural Research
FAO	— Food and Agriculture Organization
IARCs	— International Agricultural Research Centres belonging to the CGIAR system
IBPGR	— International Board for Plant Genetic Resources
UPOV	— Union for the Protection of New Varieties of Plants
IDRC	— International Development Research Centre, Canada.

Some countries have weak plant breeding programs. The scientists may be poorly paid, the working locations isolated, and the facilities inadequate. In such cases it is IDRC's policy to support the establishment and strengthening of national agricultural research systems. In such countries there are few commercial opportunities for transnational or private companies and the PBR issue hardly arises.

A third group of countries lies somewhere in between. Public sector breeding has some strength and market prospects among interest private companies. If PBR are adopted in such situations, the most productive policy may be to apply the legislation so that both the public and private sectors have an equal opportunity of benefiting. This would encourage greater financial support and increase the amount of plant breeding. The private sector may play a valuable role in establishing good breeding and seed multiplication enterprises, and indeed may be attracted to do so without PBR legislation. However, care must be taken to ensure that the private sector does not come to dominate breeding efforts. Opportunities for abuse abound. The importance of maintaining a strong public sector is even greater than for developed countries.

There can be no possibility of PBR in any country until there is an organized seed industry with rigorous standards for seed multiplication, storage, dressing, packing, and distribution. Generally, such an industry is best handled by private enterprise. Governments, however, must ensure the maintenance of standards, certification of the seed crop in the field, and inspection of seed samples for impurities, germination, pests, and diseases.

Donor agencies need to assist developing countries in seed multiplication, seed licencing, and inspection services, as well as in the training of staff for these specific purposes.

Membership in UPOV makes good sense for the developed world. It ensures high standards of testing for performance and quality, thus providing

In 1930 the U.S. Congress passed the Plant Patent Act (PPA) to protect plants reproduced asexually that is, through cuttings and grafts rather than from seed. Congress restricted protection to vegetatively propagated clones since they are genetically identical from one generation to the next. In contrast, the progeny of sexual crosses are widely heterogeneous. Congress also excluded plants such as potatoes, whose asexually reproducing parts are edible. PPA forbids breeders other than the patentor to reproduce the patented plant asexually. Other may, however, use the protected variety as a parent in a sexual cross.

In Europe, more than 60 years ago, France registered seeds by variety and breeder. Only registered varieties could be sold, thus establishing *de facto* plant breeders' rights. In 1961 the Union for the Protection of New Varieties of Plants (UPOV) standardized such registration legislation throughout Europe.

In 1970, the U.S. Plant Variety Protection Act (PVPA) extended a form of patent protection to sexually reproduced plants. This recognized the fact that through diligent crossing and selection, breeders could produce identifiable, uniform, and stable varieties. PVPA awards protection certificates for 18 years. More than 1600 protection certificates have been awarded under PVPA. The Act does not prevent a farmer using some of this year's harvest as planting seed in the next season.

for a reputable and reliable international seed trade. UPOV also encourages free interchange of registered materials among its members.

For many developing countries, however, membership in the union may be inappropriate. Few countries have the necessary trained staff to carry out extensive testing of varieties and seed. In addition, they could become vulnerable to exploitation by transnational companies. The implications of joining UPOV should be exhaustively studied before any government considers membership.

CGIAR System

The number of developing countries able to legislate, implement, and manage PBR is small. For the great majority, there will be few restrictions on seed movement, purchase, or sale. Seed materials will continue to be freely available from the CGIAR system.

Some observers have suggested that semifinished cultivars from the IARCs are susceptible to misappropriation in countries with PBR. These materials therefore need to be accurately described, and the descriptions widely publicized.

Appropriate agreements need to be made with governments of the countries concerned. Not inconceivably, the dangers associated with misappropriation may be greatest in countries that join UPOV.

These concerns may however be more imaginary than real. A country that has introduced PBR legislation most often has reached an advanced stage in plant breeding and has less need of semifinished materials. The IARCs' primary clients are those with a less developed capability who would not likely have adopted PBR legislation.

Restrictions and Counter-Restrictions

Plant breeding is most effective when done from a wide base of genetic resources and when testing of improved lines is carried out across diverse locations. The international exchange of germ plasm is therefore an important element in the development of good breeding strategies for both developing and developed countries.

As legislation restricting access to new varieties is increasingly adopted, developing countries can likewise be expected to tighten access to the genetic resources available on their home turf. Indeed, many now argue that their indigenous germ plasm is a national resource like forests or mineral deposits to be exploited commercially. While understandable, such an attitude, like the introduction of PBR, could result in greater restrictions on the movement of germ plasm. Clearly, this could be counter-productive for all concerned. The situation needs to be monitored carefully.

Some Aspects of the Informal Rural Credit Market in Sri Lanka.

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As in many other developing countries in Asia, Latin America and Africa, the Informal Rural Credit Market (IRCM) occupies an important position in the rural financial market in Sri Lanka. The main purpose of this short article is to examine several important aspects of the IRCM in the country.

While a thorough analysis of IRCM is useful in many respects, the limited data base does not warrant such an analysis. Islandwide data on the Informal Rural Credit Market are available only from the Consumer Finance and Socio-Economic Surveys of the Central Bank. These data too cover only a limited range of variables. There is a large number of micro-level studies dealing with some aspects of the IRCM in the country; yet many of these do not provide adequate details and only refer to the existence of extremely high rates of interest.

Lenders and Borrowers

An important aspect of the Informal Rural Credit Market is that there exist numerous types of suppliers in the market. These include friends, relations, professional and semi-professional money lenders, boutique keepers, landlords, commission agents, agricultural produce dealers in the primary market and employers of agricultural labour. These different types of suppliers have widely different objectives.

On the demand side too there are numerous types of borrowers such as agricultural labourers, tenant farmers, smallholders of cash crops and owner operators of food crop lands. Though numerous types of borrowers operate in the Formal Rural Credit Market as well, there the degree of diversity in this respect is not high. Also certain types of borrowers such as agricultural labourers do not figure significantly in the Formal Rural Credit Market (FRCM) while they do occupy an important position in the IRCM. In eco-

nomie terms, the poorest of the poor, the poor and rich, all these categories operate in the IRCM; although the poorest of the poor, and often the poor as well, are virtually excluded from bulk of the transactions taking place in the FRCM. This basic difference in the type of borrowers operating in the two markets is significant in explaining a number of other important aspects of the IRCM.

Interest Rate Structure

The very fact that a wide array of suppliers with multiple interests deal with borrowers who are highly heterogeneous in socioeconomic characteristics produces a wide spectrum and a complex structure of interest rates in the IRCM. The complexity is further reinforced by the fact that even a given supplier charges varying rates of interest on the loans of same size, duration and purpose granted to different borrowers. This stands quite in contrast with the simple interest rate structure in the Formal Rural Credit Market, where rates often take the form of administered prices, and therefore, variation across both suppliers and borrower categories is comparatively very much less.

However, notwithstanding this complexity one may observe several broader aspects of the interest rate structure of the IRCM. The significant volume of loans granted free of interest has been a salient feature. In 1969, interest free loans accounted for 46% percent of the total amount of loans granted by informal sources, according to the Survey of Rural Credit and Indebtedness (SRCI). A number of subsequent surveys too revealed the dominant position of the loans extended free of interest. The survey of Credit and Indebtedness Among Paddy Farmers (SCIAPF), conducted by the Central Bank in 1976, revealed that 31 percent of the informal sector lending was free of interest. The data referring to 1978/79 and 1981/82 confirmed further the signi-

ficance of interest free loans in the IRCM. Such loans accounted for about 43 percent of the total amount lent by the informal sector in both periods. However, the importance of interest free loans should be evaluated cautiously as some of these loans may in fact have a hidden cost

Undoubtedly a significant proportion of the interest free loans is extended by friends and relatives. The SRCI of 1969 disclosed that they accounted for 46 percent of the quantum of interest free loans. But a wide array of other persons who have vested interests in the borrowers economic activities too provide interest free loans. Produce dealers and boutique keepers extend such loans to some of their clients. However, without adequate data and information it is difficult to make a generalization on the hidden costs that such loans may carry. Yet, it is safe to conclude that the quantum of actually interest free loans could be lower than what was revealed in the surveys referred to above.

Another salient feature of the IRCM is that a significant proportion of the volume of informal lending has been extended at interest rates which are not significantly different from the unsubsidized rates of the FRCM. Nimal Sandaratne noted this in analysing the data gathered in the SCIAPF of 1976. The same observation may be made with reference to the rural credit data gathered in a number of pre-1976 as well as post-1976 surveys. For example, approximately 38 percent of informal lending in 1978/79 and 20 percent of informal lending in 1981/82 were at interest rates in the range of 1-30 percent. The unsubsidized formal sector interest rates during the same years were also in the range of 20-25 percent.

Another aspect, perhaps one of the most significant aspects, of the IRCM is that despite the common presumption only a relatively small proportion of informal loans had been transacted at what may be considered exorbitant rates of interest. In 1969, only about 18 percent of the household borrowings was transacted at rates over 25 percent per annum. In 1976, 23 per-

cent of the borrowings from the informal sector fell into the interest class of 26-50 percent per annum. Similarly, in 1978/79 about 11 percent of the informal loans fell within the interest class of 31-60 percent and another 6 percent in the over 100 percent interest class. Yet, in 1981/82 a greater quantum has been transacted at high rates. The data for 1981/82 revealed that as much as 19 percent of informal loans was at rates over 100 per cent while another 16 per cent was at rates in the range of 31-60 per cent. It is not however clear whether 1981/82 marks a turning point in the pattern of the interest rate structure. But with the exception of 1981/82, the proportion of loans transacted at exorbitant rates has been small in general. However as Sandaratne noted, it is these loans which have drawn the attention of most commentators and observers of the rural economy. He added that the marked contrast of these interest rates from those of the institutional sector has led to its characterization as an exorbitant and usurious one.

It is the money lenders who have been characterized as most exploitative and parasitic in the rural financial market. Yet the available data do not support such a generalization. A survey of the available literature clearly indicates that this generalisation is based on small-scale micro-level surveys rather than scientifically conducted island-wide surveys of rural credit. The 1976 data revealed that 16 percent of the loans granted by the money lenders was at rates below 16 percent while 49 percent of the loans was at rates below 26 percent. About 34 percent was at rates in the range of 26-50 percent. Only 18 percent of the loans was at rates over 50 percent.

It is not argued here that high interest rates do not exist in the IRCM. In fact such rates do exist and will continue to exist in the future. But it is wrong to conclude that the average rates of interest in the IRCM are exorbitantly high. Often those who refer to high interest rates do not make reference to the quantum of finance transacted at those rates. This tends to give a distorted picture of the interest rates prevailing in the IRCM.

Factors Influencing Interest Rates

An important question is how would one analyse the interest rates in the IRCM. Interest rate determination in the formal markets may be meaningfully analysed in terms of neo-classical economic concepts. Yet, since extra-economic considerations play an important role in the economic activities of the rural society, factors influencing interest rate determination in the informal rural credit market transcends the limits of neo-classical economic analysis. Also, the transactions in the credit market cannot often be meaningfully segregated from those of the land or labour market where extra economic considerations play an even more predominant role. Thus, in analysing the interest rates in the IRCM both economic as well as extra-economic factors will have to be taken into account together with the inter relationships of transactions in multiple markets.

It was pointed out earlier that a significant proportion of informal lending is free of interest. It is quite possible that some of these loans have hidden costs. Yet even subject to this limitation, existence of interest free loans confirm the importance of kinship and friendship in the IRCM. It is not possible to argue that many of them do not have more attractive alternative investment avenues for their funds. But they provide funds interest free (at negative real rates) because they value more the continuation of existing social relationships or perhaps strengthening them further.

In fact, interest free loans are not always unproductive from the point of view of the suppliers. Provision of interest free loans by friends and relatives may be interpreted as an attempt to establish reciprocal obligations on which they can draw in time of need; in other words such loans constitute part of a complex social systems for spreading risk. In the IRCM, a supplier of funds at one point may become a person who demands funds at another point of time.

However, the boutique keepers and landlords may provide interest free

loans mainly due to their own economic interests. Where retail trading is competitive the boutique keepers may extend interest free loans to retain or expand their share in retail trading in the market. Some of them may over-price the goods and hide the interest. But we do not know whether all boutique keepers always do so. The landlords may provide such interest free loans to ensure adoption of better cultural practices by their tenants which in turn bring benefits to the landlords too.

Another important question is how would one explain the existence of very high interest rates in the rate structure of the IRCM. Theoretically the high rates may result from four factors:

- a) high opportunity cost of money;
- b) high-administrative premium;
- c) high risk premium; and
- d) existence of monopoly in the market.

The opportunity cost of money may vary from one money lender to another and over-time for a given money lender. It is determined by a complex set of factors. Higher opportunity cost, *ceteris paribus*, leads to a higher interest rate. Money lenders have to keep a sufficient amount of funds in the form of cash in order to serve their clients quickly. Speedy service is an important characteristic of the IRCM. However, idle money involves a cost to the money lender which he passes on to the borrower. The quantum of money he has to keep idle and the period for which he has to keep this quantum influence his interest rates.

The seasonality of demand for credit also involves an opportunity cost. If the money lender is unable to synchronize his other investments with the seasonal pattern of demand for his funds, a part of the funds may be idle with him. Thus a longer slack period may lead to a higher interest rate.

Administrative costs too influence the interest rates. An important aspect of this cost component is that its incidence tends to decrease as the size of the loan rises. In general, the administrative cost is relatively lower in the IRCM when compared with that of

the IRCM. Within the IRCM, the administrative cost is greater in the case of professional money lenders than in the case of boutique keepers, partly owing to the fact that different economic activities are combined by the latter.

A significant proportion of the loans extended by the money lenders in the IRCM consists of small size loans ranging from Rs.200/- to about Rs.750/-. Also most of them are for short periods. These two factors together raise the administrative cost of such loans which in turn leads to higher rates of interest.

A factor which reduces the administrative cost of money lenders is that the bulk of their borrowers consist of known persons and many of them are not new clients. Given the limited size of their individual markets money lenders often have information about even new or potential borrowers. This lowers the administrative cost. On the whole, high interest rates in the IRCM cannot be explained in terms of the administrative cost as the overall magnitude of such cost in the IRCM appears to be low. Yet, certainly it is a component of the interest rates in the IRCM and is in the IRCM.

Perhaps, the most important factor which explains the high interest rates prevailing in the IRCM is the Risk Premium (RP). A major factor affecting the RP is the default rate. Like institutional lenders, non-institutional lenders too experience defaults. A popular presumption, however, is that the dominant position of the money lenders in the socio-economic and political structures in the rural society enables them to use extra-legal measures to recover the funds lent by them. Yet, it is difficult to accept the position that they recover all the funds they lend. Many tend to ignore the other side of the picture. A significant proportion of the borrowers operating in the IRCM falls into the category of poorest of the poor and the poor. Income levels of many of them are highly vulnerable to market fluctuations and weather. Their health status is poor and they are likely to fall sick frequently. Thus, lending to them carries a greater risk of default. It is this very same high risk factor which,

to a large extent keeps the institutional lenders away from their lending network. The risks can be reduced if securities of acceptable value can be obtained. But almost by definition many such borrowers in the IRCM do not have such securities. Also, unlike institutional lenders, the informal lender's capacity to diversify his loan portfolio to reduce the overall risk factor of his operations is extremely low. In a given area, it is mainly the poor who tend to rely on the IRCM; while rich and influential persons have easy access to institutional sources which provide loans often at lower rates of interest. If we assume that the default rate is 20 percent and the opportunity cost of funds is 17 percent and the administrative cost is 5 percent for a loan of Rs.100/- the risk premium (RP) works out to 30.5 percent. This shows to what extent the RP alone would result in higher interest rates in the IRCM.

However, unfortunately many social scientists and policy makers tend to believe that the rural sector interest rates are high due to monopoly powers enjoyed by the non-institutional money lenders. It is difficult to provide theoretical support to this assumption. Often there are more than one supplier in a given area. These existing lenders are unable to protect themselves from the competition of new entrants into the market. Monopolistic prices and profits cannot therefore be maintained for a long period. It is not denied that localized monopolies may exist for short periods in certain areas. But it is difficult to maintain such monopolies for a long period of time. The "monopoly explanation" is not based on scientific research. It is based on ministrations of high rates of interest in the IRCM. High rates may prevail without a monopoly situation in the market as monopoly is only one of several causes of high interest rates. If the opportunity costs and the RP are high, the interest rates may be high even under competitive situations.

Heretofore, we discussed only the supply side factors. In addition, the demand side factors too influence the interest rates in the rural sector. The

strength of the demand in relation to the liquidity in the IRCM is an important factor on the demand side. Excess demand situations tend to push the rates upward. The demand in farming areas may vary largely with the weather patterns. Adverse weather conditions tend to raise the demand thereby putting pressure on the rates.

In the foregoing analysis attention was focussed on only one component of the price of credit, i.e. the interest rate. We ignored the transaction costs of credit. Transaction costs (TC) includes travel costs, value of time spent to obtain the loan etc. In the IRCM, TCs are negligible; but, in the IRCM, such costs are significant for borrowers of small amounts. Therefore, if the interest rates of the IRCM are compared with those of the IRCM one tends to get a misleading picture. What one should compare is the price of credit in the IRCM with that of the IRCM. Since the TC is relatively much higher in the IRCM, when price of credit is compared one would find that the difference between the two markets is not so wide.

In a comparative analysis another adjustment is necessary for the interest rate in the IRCM. It is required to take unsubsidized interest rates into account in the analysis. When one does this, one would find that the average price of credit (that is interest rate plus transaction costs) in the IRCM is not exorbitantly high.

Conclusion

The higher price of credit in the IRCM is largely a combined result of the high risk premium and the higher opportunity costs rather than the monopoly power of the money lenders. Therefore, from a policy point of view it is required to place greater emphasis on development of rural financial markets, reduction of risk and uncertainty in rural farming and improving agricultural practices. Such measures would tend to reduce the relatively high price of credit in the IRCM. In conclusion, I shall raise one question. Is it correct to generalize that the suppliers of credit in the IRCM are parasitic, anti-development and exploitative just because their interest rates in the market are comparatively high?

Trade in Services and Developing Countries

Jeffrey J. Schott and Jacqueline Mazza

Developing countries have much to gain from the strengthening of multilateral discipline over trade and could benefit from services trade negotiations such as those being conducted under the Uruguay Round talks of the General Agreement on Tariffs and Trade, according to these two trade specialists.

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Courtesy

JOURNAL OF WORLD TRADE LAW

The members of the UN's General Agreement on Tariffs and Trade (GATT) have just embarked on the eight multilateral round of trade negotiations since the founding of the organization in 1948. The negotiations come none too soon. The world trading system faces a rough road in the years ahead, for several reasons:

The recovery in world trade from the double blow of global recession and the debt crisis in developing countries (LDCs) is far from robust. Growth in world trade fell to under 4 percent in 1985 from 9 percent in 1984.

Unemployment in the Organization for Economic Cooperation and Development (OECD) area remains high, exacerbating protectionism in sensitive sectors such as textiles and steel. LDC exports will feel the pinch as governments that face critical elections come under mounting pressure to impose new import restraints.

Many LDCs still face severe debt problems and foreign exchange constraints that force them to maintain stringent import controls. Meanwhile, restraints on their exports could hamper their export-led growth strategies

and spawn a new wave of debt reschedulings.

The causes of these problems stretch well beyond the confines of the GATT. The massive misalignment of exchange rates and the disruptive effects of the LDC debt crisis have contributed importantly to the weakening of the world trading system. Parallel progress toward the resolution of these problems is essential if trade talks are to succeed.

But the GATT itself has not worked well. The GATT has come under frequent attack in recent years because its rules do not cover a large segment of world trade, existing provisions are evaded through "extra GATT" arrangements such as the Multifibre Arrangement and voluntary restraint agreements, and dispute settlement procedures have failed to curb abuses by major powers. A new round has been embraced by LDCs and industrial countries alike as just the "shot in the arm" the GATT needs.

The most contentious issue before GATT members as they start the new round is trade in services. Although agreement was reached at Punta del Este, Uruguay, to include negotiations on services on a separate track from those on goods, developing countries, led by Brazil and India, have raised a number of concerns about whether there even should be a negotiation on services and, if so, whether it should be conducted within the GATT, as opposed to the United Nations Conference on Trade and Development (UNCTAD) and other United Nations bodies. By contrast, the United States, along with other industrial countries, regarded the inclusion of services in GATT talks as the sine qua non of a new round and, indeed, as a barometer of the efficacy of the GATT itself.

In essence, LDC concerns about the inclusion of negotiations on services in a new round involve a fundamental

question of the shape and direction of the GATT. The LDCs have seen the GATT as a vehicle to promote merchandise trade, particularly in manufactured goods and commodities. While manufactured exports have grown faster than total exports over years, LDC manufactured exports in 1983 still only accounted for 12 percent of world trade compared to 7 percent in 1973. The LDCs would not like to see the negotiations on services take the focus away from negotiations on longstanding trade problems. LDCs also see four additional negotiating problems with the GATT talks: (1) how the most-favoured-nation principle will be applied to trade agreements on services; (2) how the national treatment principle will be applied to foreign services competitors, particularly in industries such as banking, insurance, and telecommunications; (3) the possibility that the inclusion of services in the GATT would open up LDCs to new trade disputes and retaliation; and (4) concerns that certain issues, such as labour services, could be excluded from the talks.

The issue of trade in services still could prove disruptive in the new GATT round unless care is taken to understand the issues and interests at stake. The current perception is that services is a "North-South" issue, with the gains from trade accruing to the OECD countries at the expense of the LDCs. But the LDCs also have a critical interest in services trade, both for their economic development and their balance of payments.

International services transactions

The service sector is complex and heterogeneous, ranging from high-technology telecommunications to low-technology haircuts and encompassing a broad range of financial, transport, and construction/engineering services. The diverse nature of service industries complicates the task of developing a coherent set of principles and rules to cover international services transactions. The paucity of data on traded services makes it difficult to measure what would be at stake in prospective negotiations. In light of such daunting obstacles, many countries were hesi-

tant to cutback on negotiations on services. There is confusion about the importance of services to economic growth and the role services play in the world trading system.

Trade in services is not a new issue, but it is an increasingly important one for the international trading system. Over the past decade, global services exports have grown in lockstep with merchandise exports, and they now total about \$ 400,000 million per year. There are three main reasons for this growth.

First, there has been a dramatic increase in the "tradability" of services. New technologies have revolutionized the number and types of services available internationally. The communications revolution has reshaped industrial organizations and labour markets, opening up new opportunities for internationally provided services. New information technologies permit more decentralized bases of production in more integrated multinationals. These trends encourage specialization and economies of scale in the production and trade of services.

Second, the growing interlinkages between services and goods production have greatly expanded services trade. Services now are an integral part of the production and marketing of many manufactured goods. Services provide essential inputs (from engineering design to data processing), drive the production process (for example, robotics and automated assembly lines), and facilitate the marketing of goods, from financing and insuring the transaction to providing after-sales maintenance. Moreover, as products become more sophisticated, less material and more technical services are needed. In the 1960s, services such as software to run a computer accounted for only about 50 percent of the cost of the computer system; today the hardware costs are 20 percent, and software, engineering, and consulting services absorb the rest.

Third, the liberalization of trade and capital markets has contributed to growing demand for services in increasingly interdependent markets. Global services exports grew by 11.25

percent annually over the period 1968-1983, about the same rate as merchandise exports. Foreign direct investment also expanded substantially, from average annual flows world wide during 1960-1969 of \$ 6,600 million to \$ 49,400 million during 1980-1983. These investments allowed multinationals to centralize purchases and provided a growing market for traded services. The implication of developments such as these for investment and technology transfer have sparked major concerns in the less developed countries.

Services account for a large share of economic activity in both developed and developing countries. In the United States, for example, almost 67 percent of gross national product (GNP) and 74 percent of civilian non agricultural employment is in services. By contrast, the share of services in GNP in LDCs ranges from 29 percent for low-income economies, to 49 percent for medium-income and 52 percent for upper-middle-income LDCs. Employment in services varies from 5 percent of the work force in Nepal to 64 percent in Kuwait. These figures mask the fact that services have been growing at a faster rate in LDCs than in industrial economies. Between 1973 and 1983, the average annual growth rate for services was 2.1 percent in the industrial nations, 1.3 percent in the high-income LDCs, and 2.3 and 5 percent, respectively, in the middle- and low-income LDCs.

The accompanying table provides an aggregated picture of world exports of services by industrial and developing countries. The industrial countries are by far the largest exporters of services, although their dominant position has been slipping. In 1984, industrial countries accounted for 74 percent of world services exports, down from 81 percent in 1975. LDC exports have grown on average by 27 percent per year over the last decade, but they still account for only 26 percent of world services trade. The most rapid growth of LDC exports has been in other private goods, services, and income; those exports rose from 7,500 million special drawing rights

(SDRs) in 1975 to 39,700 million SDRs in 1984, accounting for a little less than half the growth in total LDC services exports. This is particularly important because the category of "other private services" is the one most likely to be affected by new trade negotiations.

Aggregated balance-of-payments statistics hide many important differences among the LDCs. Developing nations vary markedly as to the size and composition of their services accounts and the international competitiveness of their service sectors. Analysis of the services accounts of six major LDCs in the 1980s shows the sharp differences between those with high debt burdens and those whose foreign cost is relatively low.

High debt LDCs (Brazil, Mexico, Argentina) have large invisible deficits due primarily to payments on factor services, that is, debt servicing. Trade negotiations can have an indirect effect on this problem, although the new trade round will not deal with debt issues. Nonfactor services and other private services play a relatively minor role in the balance of payments of these countries. For Mexico, other private services actually contribute to a surplus in nonfactor services. For all three nations, factor services have been consuming a greater proportion of the services outflows over time. In 1980, investment income accounted for 52 percent, 64 percent, and 44 percent of the services expenditures of Mexico, Brazil and Argentina, respectively. By 1984, these figures climbed to 71 percent, 77 percent, and 60 percent.

By contrast, the low-debt LDCs (India and Singapore) have strong services accounts. Both countries traditionally run surpluses, although India ran a small net deficit in 1982 due to payments on other transport. "Other services" is the primary revenue generator, contributing in 1983 about 60 percent and 56 percent of total services revenues in Singapore and India, respectively.

LDC concerns

The developing countries have long recognized the importance of services

WORLD SERVICES EXPORTS
(thousand millions of special drawing rights*)

	Year	World**	Industrial countries	LDCs
Shipment	1975	23.0	20.2	2.8
	1980	42.2	35.4	6.8
	1984	47.3	36.5	10.8
Other transport	1975	27.4	21.7	5.6
	1980	61.1	46.2	14.9
	1984	71.6	53.1	18.5
Travel	1975	35.4	26.3	8.8
	1980	76.9	54.0	22.9
	1984	92.3	65.4	26.9
Other private goods, services, income	1975	47.3	39.6	7.5
	1980	108.5	84.5	24.0
	1984	139.7	100.0	39.7
Other official goods, services, income	1975	11.9	9.8	2.1
	1980	23.3	19.8	3.4
	1984	32.6	28.3	4.3
Total services (excluding investment income)	1975	145.0	117.6	26.8
	1980	312.0	239.9	72.0
	1984	383.5	283.3	100.2

*U.S. dollars per special drawing right, year average: 1975, 1.21415; 1980, 1.30153; 1984, 1.02501.

**World total may differ due to rounding.

Notes:

1. "Shipment" includes freight, distributive services performed during the course of shipping, and insurance "on movable goods during the course of shipment." Note that other insurance transactions are included in "other private goods, services, and income."
2. "Other transport" includes passenger services, port services, and charters.
3. "Travel" includes all tourism receipts and expenditures other than international transport, as well as business travel and student exchanges.
4. "Other private goods, services, and income" includes labor income, property income from nonfinancial intangible assets often classified as royalties and fees, nonmerchandise insurance recorded as net premiums or claims, communications, advertising, brokerage, management, operational leasing or rentals of tangible assets, periodical subscriptions, processing and repair, merchanting, and professional and technical services.
5. "Other official goods, services, and income" includes transactions of general government and the central bank.

Source: International Monetary Fund, *Balance of Payments Statistics, Yearbook: Part II (1982, 1985)*.

to development. Services comprise much of the nation's basic economic "infrastructure" - transportation, banking, insurance, and communications. Services are critical to the resolution of many of the "human" problems of development - better health care, education, and food distribution. Services provide an important channel for the diffusion of technology from industrial to developing countries. And services are integrally involved in the production and distribution of both manufactured goods and commodities. These interlinkages mean, as stated in a report of the UNCTAD Secretariat, that "services dramatically affect the overall development performance of countries".

While the LDCs recognize the importance of services to development, they are apprehensive about liberalizing services trade. They fear that liberalization may hinder economic

growth and their ability to manage development policies. They see little to gain and much to lose. Their concerns are based on three perceptions:

LDCs do not have a comparative advantage in traded services:

- Their infant service industries need protection; and
- Liberalization would impinge on national security and sovereignty.

With regard to comparative advantage, the LDCs believe that they have a comparative disadvantage in services and that this disadvantage means they have little to gain from the liberalization of services trade. They fear liberalization would lead to a surge in imports, hampering the development of indigenous service industries, exacerbating current-account deficits, and condemning the Third World to being "permanent importers of services and high-technology goods", as a Brazilian diplomat was quoted as saying.

The traditional theory of comparative advantage suggests that merchandise trade patterns are determined by relative factor endowments. Recent studies indicate that the principle of comparative advantage also applies to trade in services. British economists Brian Hindley and Alasdair Smith have concluded that "services are different from goods in ways that are significant and that they deserve careful attention, but the powerful logic of the theory of comparative advantage transcends these differences". Similarly, and consistent with the factor endowment theory of comparative advantage, Andre Sapir and Ernst Lutz reported in a World Bank working paper that countries with abundant physical and human capital were most likely to be services exporters. Their finding seems to confirm the notion that comparative advantage in services lies with the developed world. It does not mean, however, that LDCs have little to gain from liberalized trade in services.

As in goods trade, the gains from international trade in services come from improved efficiency from specialized and increased trade flows. Imports provide cheaper and higher quality services than are available in the domestic market, promoting a more efficient allocation of scarce economic resources. Moreover, although a country may have an absolute disadvantage in services trade it can have a comparative advantage in the export of certain services. A number of LDCs have proved to be successful exporters: the Republic of Korea and India in construction services and Singapore in transport and financial services, to name just a few.

For example, LDC firms are using the experience gained in building roads, bridges, and waterways at home to export construction services. The Hyundai Engineering and Construction Company Ltd. of Korea ranks among the top five contractors in the world, building ports, shipyards, industrial plants, and commercial and residential facilities primarily in the Middle East and Southeast Asia. Its most prominent venture was the \$ 931 million Jubail industrial harbor project in Saudi Arabia. The Brazilian construction and engineering firm of Constructors Mendes Junior S.A. has over 12,000 workers abroad, with total contracts

valued at \$ 2,000 million throughout Latin America, the Middle East, and Africa.

The growing trend toward large scale international projects also opens up new business opportunities for LDC firms. Projects often are too large or diverse for any other corporation and can be better managed through syndication and joint ventures. Companies can exploit market niches by linking up with large, multinational firms. This has proved particularly important in banking and insurance, where companies need to pool their risk in large ventures.

Advances in technology are making it easier for the LDCs to capitalize on the advantages of low-cost, skilled labour. Data processing centres and engineering design units, linked to foreign corporations through international telecommunications net works, already are flourishing in countries such as India and Korea. And LDCs can profit from their comparative advantage in labour even in a capital-intensive industry such as airlines. Singapore Airlines is one of the most efficient in the world, not because it holds a capital advantage but because of its lower labour costs and better service.

The LDCs are concerned that opening up their economies to foreign competition will damage their infant service industries. With many traded services such as banking, insurance, and telecommunications dominated by large multinational firms, LDCs feel they are at a distinct disadvantage, lacking the capital resources and the experienced personnel to compete effectively. They argue that their nascent service industries require extensive protection, much like that enjoyed by the heavily regulated service industries in the developed world. Many of their arguments echo similar concerns over predatory competition from multinationals in merchandise trade.

Infant industry protection

International trading rules allow temporary protection for "infant" industries to reach the point where they can exploit their natural comparative advantage. Such protection provides

"breathing room" for a developing industry to overcome the initial period of experimentation and financial stress. It is assumed that without protection, the infant industry would never get started.

Most examples of such protection involve input relief for a particular industry. In the case of services, however, calls for "infant industry protection" have taken on a broader meaning. LDCs argue that the protection of emerging "infrastructure" services is necessary for the development of an internationally competitive economy; in other words, the long-term benefits of a strong, indigenous service sector outweigh the short-term costs of protection.

Whether the narrow or broad characterization of infant industry is employed, the same questions must be asked: Do the benefits of protection outweigh the costs? Would protection assist LDCs in exploiting their long-term comparative advantage?

The costs of protecting services are borne not only by the directly affected industry but also by those industries for which it provides inputs and technology. The repercussions of such large "spillover" effects could have a serious effect on development. In a study on insurance policy in the LDCs, Brian Hindley found that protectionist policies tended to drive up insurance costs and discourage potential users from covering risks. Apart from benefits to limited domestic suppliers, protectionism was unlikely to have assisted LDCs much foreign currency (often a main aim of insurance protection).

Indeed, LDCs may benefit from foreign participation in their domestic insurance market if it helps expand the pool of available resources. Larger pools mean less risk for each participant, which translates into lower cost coverage for domestic firms. By contrast, reserving markets for domestic firms concentrates the risk on just those firms, increasing costs and probably limiting the range of services that can be provided.

LDCs need to consider whether protection may lock in obsolete technologies and economic structures, tie up scarce capital resources, and inhibit

growth. In many cases protection may be the very roadblock that prevents the development of a competitive industrial and service economy.

LDCs also fear that opening up their service sectors to foreign competition could bring in their national security and sovereignty in three ways. First, greater liberalization would open the door for more foreign or transnational firms to enter traditionally domestic sectors. Such firms have less at stake in the local economy, are more difficult to regulate, and may make decisions detrimental to the national interest (for example, exporting capital and retaining technology in-house). Foreign participation in media, arts, and entertainment industries has social and cultural consequences as well.

Second, liberalization of services trade would involve removal of certain controls on foreign investment. Proliferation of restrictions on rights of establishment have been particularly burdensome for companies supplying telecommunications and financial services. Pressures for liberalization in such sectors will be strong because local establishment often is required to provide or distribute a service on a competitive basis. Such a prospect terrifies a sensitive LDC policymaker because, as an official of the Indian Government has stated, "free services trade seems to imply free foreign investment, which could impinge on national sovereignty and economic autonomy".

Third, state-owned or state-controlled firms would be subject to greater international competition, which over time could drive state-controlled firms out of business or reduce their influence. LDC policymakers do not want to lose the political and economic control that comes with state ownership, particularly in new, high-technology sectors, as is illustrated by Brazil in the informatics sector. They argue that the international trading system respects the needs of national security and sovereignty in the defense and transportation sectors, and they contend that infrastructure services deserve similar safeguards.

Safeguards sought

The international trading system contains provisions that safeguard national security interests. For example, special protection is allowed for defense industries. GATT Article XX permits import and export controls on commodities in short supply. Article XXI allows broad exceptions from GATT obligations for actions to "supply a military establishment" and "for the maintenance of international peace and security". In essence, the less developed countries would like similar exceptions so that they can control the development of indigenous service industries.

LDCs have deep-rooted concerns about the implications of services trade liberalization for their economic development. Regulation of service industries serves legitimate purposes and safeguards important national interests ranging from the supervision of domestic monetary policy to defense. In many cases, however, regulation masks protectionism, creating distortions and impediments to growth. In particular, it serves as a disincentive to technology transfer and inflows of foreign direct investment needed to spur economic development.

LDCs are keenly aware of the importance of technology to development but are constrained in their ability to obtain or develop it. Many of the channels of technology transfer—foreign direct investment, technology embodied imports, have been blocked by trade and investment controls imposed by LDCs to protect infant industries and national sovereignty. Financial constraints limit direct acquisition of new technologies. It has also become difficult to license many new state-of-the-art technologies. The speed of technological change has led many companies to seek their patents closely to maximize sales in order to quickly recoup research and development expenditures.

However, competition between the United States, Europe, and Japan is lowering the price and thus enabling LDCs to purchase "last year's models" of some high-technology goods and services. The recent sale of Control Data computers to India is a good

example. Although the mainframe computers are about four years old and use computer technology developed a decade ago, the deal will equip India with its most advanced and powerful computer to date and will promote advances in farming, education, commerce, and science.

LDCs thus face a series of conflicting policy choices. Should they rely on purchases of older technologies? Purchases of older generation technology are possible, but they are likely to put LDC industries at a competitive disadvantage in both export and home markets. Such a policy also would forego the positive externalities derived in the research and development process.

Alternatively, would LDCs be better off if they had access via trade and investment to advanced technologies? Is the difference worth the perceived concerns about development and sovereignty? Liberalization would facilitate the import of technology embodied goods and services. But there is a more fundamental point that argues for liberalization of some, if not most, trade and investment controls. The most pressing need of many LDCs is additional sources of development finance. Protectionism creates a disincentive to inflows of foreign official and private capital.

Not a "zero-sum" game

Developing countries need to view a negotiation on trade in services in light of their overall objectives for a new GATT round—namely, revival of Third World growth, resolution of the debt crisis, and removal of barriers to their merchandise exports. In this context, services trade liberalization is critical to the development objectives of a few LDCs, holds the prospect of new trade opportunities for some others, and threatens the protective barriers of selective service industries in a few others. For most LDCs, however, the calls for liberalization will be muted and infrequent.

Export gains in services are likely to go primarily to the industrial countries. But services liberalization is not a zero-sum game. Export gains by the industrialized countries do not necessa-

rially imply corresponding "losses" for the LDCs. First, developing countries are unlikely to be the main target of OECD services exports. Developed nations are both the largest exporters and the largest importers of services. This is unlikely to change in the near future. Second, expanded trade in services could serve as a conduit for technology transfer and help attract direct foreign investment critical for long-term development and modernization.

Furthermore, the task of integrating services into the framework of the world trading system may not be as onerous as it seems. First, not all services transactions are amenable to an international trade negotiation. Second, many issues already have been addressed in negotiations in other forums. Third, negotiators deal with priority problems (as defined in their domestic political context). New rules need not be applied universally to all service sectors in all countries; the governmental procurement code is an interesting precedent in this regard. Before rejecting participation in services negotiations, LDCs should consider, as a practical matter, what concessions they are likely to be asked to make and over what time frame. Such an evaluation should go a long way toward calming the fears of LDC governments.

Finally, LDCs would benefit from services trade negotiations. As the weakest partners in the GATT system, LDCs have the most to gain from the strengthening of multilateral discipline over world trade. The inclusion of services should help bolster the effectiveness of the GATT. In addition, services trade liberalization would complement several reforms of primary interest to LDCs. Because of the growing interlinkages between manufacturing and services, a standstill on new services trade barriers would reinforce the proposed "standstill" and eventual "rollback" of merchandise trade barriers. Both of these points underscore the overriding importance to the LDCs of a successful new round of trade negotiations.

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