Continued from December '90

EXPORT DEVELOPMENT

The Relevance of Export Performance as the Priority Indicator of Development Effort For Sri Lanka

An Approach Towards a Comprehensive Rationale for Export Promotion

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Part II

In the case of private disposable income, which is the chief variable in private sector savings, the prevalence of poverty among a considerable segment of the population acts as a barrier to extending the savings network to the whole population. In 1981-1982, the figures indicated that the poverty-stricken population was a high as 23.6% (L. Gunaratna, 1987). It was also proved that the incidence of poverty had increased from 22.3% in 1978/1979 to 23.6% in 1981/82 (Ibid p. 244). The rural sector, which has 74% of the population, has recorded the highest incidence of poverty (Ibid).

In examining the marginal propensity to save variable in the saving function, one would expect much savings by the higher income classes, but historically, their propensity to save is not remarkably high, as the majority of the upper income group have a higher propensity to consume, and are especially vulnerable to demonstration effect (Hettiarachchi, 1970). The impact of libralisation of the economy would further strengthen their propensity to consume, by strengthening the international demonstration effect (Hewawitharana, 1980).

However, generally other income groups are also not free from the domonstration effect, leading to low levels of savings in the economy. Thus, during the period 1978-1986, 90% of the GDP increase has been utilised by private consumption. (Sirisena, 1986).

Inflation, which is another major variable in the saving function, also affects savings substantially. It has been pointed out that imported inflation alone was responsible for depressing savings ratios in the seventies, by pushing the levels of private consumption to exceedingly high levels (Hewawitharana, 1980). It has to be noted that there is no short-run effective remedy for the inflationary process and that inflationary tendencies will escalate in the future owing to the openness of the economy.

Another determinant of the savings function i.e. the interest rate, also has not recorded continued positive association with savings. Historically, the response of the household sector, the major contributor to savings, to interest rates has not been strong in the country (Samaranayake, 1986, Hewawitharana, 1981).

In the case of Government sector savings, a number of factors act as barriers to increased savings. Firstly, the Government's commitment to maintain at least a minimum level of subsidies for the people limits its savings capacity. It is claimed that owing to the maintenance of consumer subsidies in the past, the pattern of Government intervention with respect to private disposable income tended to raise its percentage share of GDP rather than lower it. (Hewawitharana 1980, op cit). Secondly, the elasticity coeffecient of tax revenue is less than the national income growth rate owing to the narrowness of the tax base. (Jayasundera, 1985). However, there is hardly any area in which the tax base could be extended beyond what it has been during the past two decades. Thirdly, the contribution of Government budgetary savings to the public capital expenditure in the past was negative for the most part. On the basis of past performance, it is safe to assume that public corporations would also draw Government revenue rather than contribute to it.

In addition to these, any attempt to increase savings in a substantial manner will face a number of multiple problems at household and macro economic levels. [5] Owing to these limitations, it is clear that one cannot expect to increase the indigenous sagings level substantially at least in the short run. In this context, it is the export savings that play a crucial role in augmenting the savings levels.

Foreign Exchange GAP (Trade GAP and Export Performance

Export earnings play a relatively more crucial role in financing the foreign exchange gap or trade gap than the savings gap owing to the specific need for foreign exchange for certain development requirements. Although the foreign exchange gap could be reduced to some extent by internal savings, given the willingness of the country to change its production structure and development priorities, it could exist even where the savings gap is eliminated by greater internal effort. It is pertinent to note that almost all the studies that dealt with the application of Gap Models for the period after the sixties, have identified the foreign exchange trade gap as the binding constraint, or as the dominent gap over the savings gap. (H. M. Gunasekera Wijesinghe). The need to finance the foreign exchange trade gap from export earnings arises from specific considerations. First, the country, at its early stages of industrialisation can produce only a limited range of products when it relies solely on domestic resources. At this stage, the country cannot produce goods needed for a particular growth rate owing to the lack of technical know-how, capital equipment and materials. Therefore, although savings release resources for investment they may not make available the quantum of goods and services required in the development process (Anthonisz, 1973).

Second, even if resources are available, the country's production base is too small to cater for the production of investment goods (Dahanayake, P. A. S. 1975). Although the country needs a number of complex investment goods to cater to specific development purposes, the investments to produce such goods cannot achieve the necessary economies of scale bacause of limited demand for these goods in the country.

Third, export performance has to cater to the various foreign exchange needs in different sectors of the economy. In the country there has been a shortage of foreign exchange from the sixties, not only for capital formation but also to maintain the requirement consumption levels (Corea G., 1971). In the seventies, when there were balance of payment diffculties the growth of the agriculture sector was specially affected by the shortage of imported inputs and capital goods. (Sirisena N. L., 1975). In the manufacturing sector too, the shortage of imported inputs has been a critical problem to expand production from the sixties to 1977. Even in the late sixties when the partial liberalisation of imports enabled various industries to grow at a high rate, the availability of materials ranged from 16-69%

5. Household level problems include, inter alia, certain traditional beliefs and habits; availability of consumer durables, uneconamic size of the agricultural landholdings, feudal land tenure system, absentee landlord system, rigidities in the rural credit structure, communities' tendency to invest in physical assets, while macro economy level problems are a propensity to import, resulting in large linkage in the economy. Widespread unemployment \ and underemployment, higher dependency ratio and high rate of population growth are important. (See Rasaputram 1974, Jayamaha 1976, Hettiarachchi 1970 Sanderatne 1984, Jayatilleke 1982, Hewawitharana 1981 and Kegalle 1977).

6. The foreign exchange gap is technically defined as a gap which represents the deficit between minimum level of imports required to generate potential growth rate made possible by the minimum average rate of earnings in the economy and the foreign exchange earnings (H. M. Gunasekera 1973).

of the required quantum needed for industrial production at full capacity (Hewawitharana, 1981). In this sector, the sharp fall of capacity utilization and the rundown of machinery owing to the lack of spares and replacements would be inevitable results of the foreign exchange shortage (Hewawitharana, ibid.).

Therefore, foreign exchange acts as an important factor of production similar to labour and capital (See Motha) and without doubt the foreign exchange gap is the dominant gap in the economy.

Thus, export performance will play a pivotal role in eliminating the comparatively more important foreign exchange gap in the economy, in addition to its impact on the savings gap. Consequently, satisfactory export performance is a necessary condition to obtain the desired results in the investment and savings effort indicator.

The Development Effort Indicator of Efficiency of Investments (Capital Output Ratio) and its Relationship with Export Performance

Significance of efficiency of investments (Capital output ratio) as an effort indicator

For a developing country like Sri Lanka, where capital acts as a crucial factor of development, ensuring the efficient utilisation of capital investments has far-reaching implications for the development process. However, applying appropriate methods to gauge efficiency in the use of resources is an important issue on which further research is urgently needed.

Capital output ratio has so far been considered as the best available indicator for measuring the efficiency of utilisation of resources. It is claimed that the lower the capital output ratio the greater the efficiency of resources employed. Generally, the inter-country comparison studies lend support to the thesis that it is fast-growing countries that have the lowest capital output ratio, implying that these countries are the most efficient users of factors of production. (UNCTAD 1970). Nevertheless, it has to be mentioned that generally this relationship is a weak one for developing countries owing to a variety of factors, including the specific characteristics of various subsectors, the relative importance of the factors other than capital in the production function, wrong selection of projects, defects in implementation and of management of capital projects. Like in other developing countries, in Sri Lanka too, aggregate capital output ratio is distorted by the inclusion of a number of infrastructure and large-scale agriculture projects, which have long gestation periods. However, in Sri Lanka's case "since many of the technological changes are embodied in fixed capital and therefore economic benefits of technological changes are realised through utilisation of the fixed capital," the incremental capital output ratio (ICOR) which measures the efficiency of gross domestic capital could be considered as the most appropriate efficiency measure of resource use, reflected in the economy. (Sirisena 1986). Hence, the development effort indicator of efficiency of investment reflected by incremental capital output ratio is relevant to the country. Given the importance of this indicator, one can examine the connection between the ICOR and exports.

Incremental Capital Output Ratio (ICOR) and Export Performance

Although one cannot establish and one-to-one direct relationship between the contribution of export performance and the incremental capital output ratio because efficiency in investments is primarily governed by good economic management, the export sector performance contributes to the increase rates of capital output ratio by providing contributes to the increase rates of capital output ratio by providing necessary import capacity for greater inflow of imported capital goods and technology. Earlier, Sirisena in a pioneer study established the connection between the movement of ICOR and the imported goods for the period 1970 – 1986. (Sirisena, N. L. 1986). The (ICOR) data calculated for the longer period 1970 – 1988 also confirm this connection.

The following table compares the behavious of ICOR during the period 1970-1988:

Table 5

Incremental Capital Outputs Ratios (ICOR)

Year	ΔGNP (Rs Mn)	GDGCF (Rs Mn)	ΔGNP* / GDFCF-1	ΔGNP** / GDFCF
1970	-	2,359	-	-
1971	52	2,140	0.022	0.024
1972	1,244	2,206	0.581	0.563
1973	2,742	2,493	1.243	1.099
1974	4,696	2,972	1.884	1.580
1975	2,137	3,699	0.719	0.577
1976	2,085	4,595	0.564	0.453
1977	5,522	5,035	1.209	1.102
1978	7,789	8,521	1.546	0.914
1979	13,240	13,246	1.555	1.000
1980	14,939	20,845	1.128	0.716
1981	13,235	23,279	0.827	0.568
1982	15,798	30,227	0.678	0.521
1983	20,721	35,342	0.634	0.586
1984	28,378	39,558	0.803	0.717
1985	12,337	39,457	0.312	0.312
1986	17,030	42,328	0.443	0.402
1987	17,159	45,752	0.405	0.375
1988	23,412	49,961	0.511	0.468

Note: * ICOR with one year lag.
** ICOR without a lag.

Source: Determinants of Economic Growth (Sirisena, N. L. 1986)
Review of the Economy, Central Bank, 1988.

An analysis of the data in the above table shows that despite the significant variations in efficiency of capital formation over the years, the behaviour of both series of incremental capital output ratios with a one-year lag and without a lag demonstrate that there was an overall decline in ICOR estimates during the sub-period 1970 – 1977, as against the substantial increase of the estimates from 1970 – 1980. The decline of ICOR during the period 1970-1977 could be attributed to the non-availability of capital goods arising out of import restrictions, while the rise of ICOR during the period 1977– 1980 is linked with the availability of capital goods after liberalisation., (Sirisena ibid).

However, after 1989 ICOR estimates show a declining tendency. This could be attributed to the factors of slow realisation of the benefits of large-scale investments like the Mahaweli Programme, inadequate planning in the Government sector manufacturing projects, inclusion of unproductive expenditure under the heading "Capital Formation", and a higher depreciation rate of national capital stock. Therefore, considering the above evidence, it is reasonable to conclude that there is a link between availability of imported machinery and the efficiency of investments, which implies the need for greater import capacity through satisfactory export performance.

The Development Effort Indicator of Mobilisation of Tax Revenue and Export Performance

Significance of Mobilisation of Tax Revenue Effort Indicator

The development effort indicator of mobilisation of tax revenue assumes special impor-

tance for any given country as the capacity of the Government to provide a number of welfare services, including public goods, depends on the amount of tax revenue that it is in a position to collect (UNCTAD 1970). Addition-

ally, the Government's efforts to increase tax revenue also stems from the need to channel resources to the private sector, as required, or to engage directly in productive activities through public enterprises in fulfilling the national objectives.

In Sri Lanka's case, the collection of adequate revenue through taxation has been the major role in fiscal policy over the decades. However, the specific importance of a revenue-increasing effort is connected with an historical legacy of the Government's commitment to provide a certain amount of consumer subsidies to the people. In this context, conventional arguments for increased tax revenue is associated with financing capital needs while maintaining subsidies. However, (during the period) after 1977 there has been much pressure to increase tax revenue not merely owing to increased development activities, but also because of factors of increasing consumption levels (28.1% increase during the period 1978 – 1986 compared with 1970 – 1977), and the apparent availability of a number of taxable areas. (See Rodrigo 1986, Karunatilake 1986).

In addition, the availability of an efficient tax network and administration reflected by the higher tax GDP ratios compared with most of the developed countries from the fifties, gives added validity to recognition of tax mobilisation as a development effort indicator in the country.

Tax Revenue and Export Performance

Given the specific importance of tax revenue mobilisation as an indicator of effort, satisfactory export performance is essential not only to achieve the revenue objective through export duties and other export performance-sensitive income sources per se, but also to achieve various other Government objectives.

Basically, the relevance of the export performance in tax mobilisation is connected with the indispensability of export tax income as a major source of Government revenue as there are no significant alternatives to meet the increasing level of Government expenditure. Although the relative importance of export taxes in the overall tax system and in the national economy has been declining since 1980, and more particularly after 1984, over the years the export taxes have contributed a substantial proportion of the total tax revenue. Historically it has been the major sector with a relatively large tax base (Fernando N. 1988). Even in the relatively recent period of 1976-1980, it provided more than 31% of total revenue and 6.4% of GDP. As seen in Table 5, it has been the major single item of revenue for the periods 1951 – 1955 and 1976 – 1980. Along with import taxes, it has accounted for more than 50% of Government revenue upto 1985. In fact, even in 1987, export-based taxes generated around 15% of international trade taxes and showed an increase of 18% over the previous year entirely owing to favourable prices for tea and rubber (CB 1987 – p. 235). Thus, export taxes were directly instrumental in maintaining the buoyancy of the tax revenue in unity for the past three decades, in the face of declining income taxes revenue buoyancy, to less than unity.

Particularly during the boom periods, when higher incremental consumption expenditure is associated with higher export income, it will further increase the level of economic activities, leading to expansion, of taxable capacity of the various revenue areas in the economy. Generally, "as money income expands a greater number of incomes fall within the minimum taxable range and a greater number also

Table 6

Tax Structure in Sri Lanka

	1951-1955	1956-1960	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1988
1. Tax On Income	25.7	24.6	22.5	20.6	17.1	15.3	17.2	14.0
	(4.0)	(4.0)	(3.7)	(3.2)	(2.7)	(2.6)	(3.1)	(2.5)
2. Taxes on External Trade	67.8	66.8	60.1	55.2	48.8	56.1	49.1	49.6
	(10.5)	(10.9)	(10.0)	(8.7)	(7.8)	(10.8)	(8.8)	(8.5)
2.1 Export Taxes	34.8	33.8	23.0	18.5	14.3	31.2	18.1	5.2
	(5.4)	(5.4)	(4.0)	(2.9)	(2.3)	(6.4)	(3.2)	(0.1)
2.2 Import Duties	33.0	33.6	36.2	29.5	9.8	15.5	25.8	30.4
	(5.1)	(5.5)	(6.0)	(4.5)	(1.6)	(3.0)	(4.3)	(5.0)
2.3 PEECs	–	–	–	0.2	24.5	8.4	–	–
2.4 TT on Imports	–	–	–	(1.3)	(3.9)	(1.5)	(1.1)	(14.0)
						7.0		(2.4)
3. Taxes on Domestic Goods	1.5	3.3	8.4	17.6	29.6	26.0	31.1	31.6
	(0.2)	(0.6)	(1.4)	(2.7)	(4.7)	(4.9)	(5.4)	(5.4)
3.1 Excise Tax	1.5	3.3	7.8	11.4	14.0	15.8	11.2	13.3
	(0.2)	(0.5)	(1.3)	(1.8)	(2.2)	(2.5)	(1.9)	(2.3)
3.2 Turnover Tax			0.6	6.2	15.6	12.7	19.9	18.3
			(0.1)	(0.9)	(2.5)	(2.4)	(3.5)	(3.1)
4. Taxes on Other Transactions	5.0	5.6	9.0	5.6	4.7	2.8	2.6	4.8
	(0.8)	(0.9)	(1.5)	(0.9)	(0.7)	(0.4)	(0.4)	(0.7)
4.1 Property Tax	2.0	2.4	4.4	2.8	2.7	1.7	1.8	3.9
	(0.4)	(0.4)	(0.7)	(0.4)	(0.4)	(0.3)	(0.3)	(0.6)
4.2 Licence Tax	2.6	3.2	4.6	2.7	2.0	0.9	0.7	0.9
	(0.4)	(0.5)	(0.7)	(0.4)	(0.3)	(0.1)	(0.1)	(0.1)
Total Tax Revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(15.5)	(16.4)	(16.6)	(15.4)	(15.9)	(19.0)	(17.7)	(17.1)

(GDP Ratios are given within parentheses)
Sources of Basic Data: Annual Report & Review of the Economy. (Various Issues) Central Bank.

It has to be mentioned that the drastic reduction of export duties after 1984 is only a reflection of the need for further fiscal incentives for export promotion in the face of falling export prices. Therefore, it is neither an indication of exhaustion of this source of revenue nor of the Government's reluctance to tap this source when export market conditions are favourable in the future. In any case, a mere reduction of the revenue from export taxes does not invalidate the case for the relevance of export development in the tax mobilisation effort in the country, since the underlying rationale for reduction of duties is further promotion of these very export commodities.

Export performance is also directly associated with keeping the high level of the country's other important revenue source i. e. import revenue. The country's ability to maintain high import capacity depends crucially on the development of the export sector. Its performance also influences the level of other major taxes i. e. Income Tax and Turnover Tax. This export increase directly stimulates the demand for food and non-food items, the level of economic activities also increases. moves upwards into the higher income levels that are liable to a higher rate of taxation" (Corea 1975 – p. 230).

From a sectional point of view, since export income is concentrated in the upper income group, higher export performance may increase the revenue from Income Tax and taxes on other transactions such as the Property Tax and Licence Tax as well.

In addition to collecting revenue for the national coffers, export performance-dependent taxes, particularly export duties, have been used in the past to achieve the income distribution objective of the country. An analysis of tax incidence based on consumer finance data for 1973 and 1978 has revealed that export taxes, like Income Tax push up the effective tax rate structure towards a considerable level of progressivity. It was further "shown that export taxes introduce higher progressive taxes on the upper income deciles and provide some what regressive implicit subsidies to all categories". (Jayasundera 1986 – p. 61). Among the reasons behind

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the progressive incidence of export taxes, concentration of export income on upper income groups and the inability to shift the export taxes in the short run (as this tax is a quasi rent tax) are noteworthy. (Jayasundera a bid). The manipulation of the export tax policy to capture windfall profits during the boom periods and other higher export-earning periods over the years also show the effectiveness of export duties as an income-stabilising device in the country. Higher export duties levied during the 1984 tea boom and a tax levied onthe higher profits generated by exporters by the 1967 devaluation are cases in point. (See Central Bank Commemorative Volume.)

It has to be noted that even other direct or indirect taxes which have a bearing on export performance such as Income Tax, licence fees and property transfer taxes, generaly affect only the upper 30% of the population. Import duties on selected imports can have a progressive incidence and reduce the income of upper income groups. Therefore, a higher progressivity of these taxes is an affective instrument in income distribution in the country. (Jayasundera ibid).

Export taxes have also been mobilised as a "convenient method" of taxing the cash income of producers and consumers who could not be reached by income or other indirect taxes owing to administrative or other difficulties (Jayasundera ibid). Since a larger percentage of production of tree crops was exported it was easy to rely on export taxes and taxes on primary commodities are also convenient as a substitute for land taxation (in a developing country like Sri Lanka), where implementation of land taxation poses a number of problems owing to valuation difficulties. It is claimed that this "convenience factor" has a considerable bearing on the export taxation policy of the country. (Fernando in op cit). The concentration of the agriculture tax only on traditional export agriculture and not on to the paddy sector, which has grown rapidly in the past two decades accounting for about 5% of the GDP, proves this.

Yet another purpose behind tea crop sector taxation at the early stages was to reduce the relative rates of return on investment in this sector in order to encourage the investments outside the export sector (Fernando, op cit 1988). Although there are no substantial reasons for the considerable shift of investments owing to this policy, the higher export policies certainly help the Ceylonisation process of the plantations in the early years. (See Pieris G. 1984).

Thus, given the resort to multiple objectives by the export taxes and other export-dependent taxes and the ability of export performance to increase much-needed non-inflationary revenue, satisfactory export performance could play a cardinal role in the tax mobilisation effort even in the future.

Development Effort Indicator of Population Growth Policy and its Relationship with Export Peformance

Significance of Population Policy as a Development Effort Indicator

Despite the inter-country variations on the effect of population growth on development there is a wide measure of recognition that population policy consistent with development objective is an important element of national development effort in countries (UNCTAD 1970). Even if one accepts the fact that the objective of fair distribution of food among the population should be given priority over population contracting programmes in developing countries, it is nevertheless true that the higher rate of population increase exerts greater pressure in utilising their already diminishing real (natural) and other resources including per capita savings.

Economically speaking population increase affects an Island Developing Country like Sri Lanka (which already has a relatively high density of population compared with most of the developing countries) by, inter alia, further diminishing the land-labour ratio [8] adding to the surplus factor of production i. e. labour, exhausting resources which are available to maintain the capital-labour ratio and by bearing pressure on Government's welfare and development programmes. Further, the existence of a large problem of absolute poverty and unmet basic needs in the country are (partly) related to largeness and the high dependency ratio in families [9] (Hewawitharana 1986). According to statistics, this problem may worsen in the future if the rate of growth of population, which ranged from 1.2% to 2.8% in the past, continues unabated [10] (Hewawitharana 1986). However, the population effect is not limited to economic factors alone but has a pervading influence on other important non-economic variables such as literacy rates, environmental degradation and status of women (Athulathmudali ibid 1989).

The attention of policy-makers to the consequences of this problem was drawn as far back as the end of the fifties (see Ten Year Plan). The impact of population pressure on the economic standards of the people is a major factor in policy formulation (Athulathmudali ibid). In this context, it is beyond doubt that a population policy which helps to mitigate the population increase is an important national effort indicator relevant to the country's development.

Population Policy and Export Performance

How does export performance relate to a population policy which influences the growth rates of population? The population growth rate of a given country is a result of the net outcome of factors affecting the movement of fertility, mortality and migration. Therefore, it is difficult to isolate the impact of these variables on population growth and disaggregate them individually, let alone (empirically) and correlate the country's rate of population growth with that of export performance. However, there is no doubt that the increasing income of the community brought about by exports plays a crucial role in influencing mortality, fertility and migration rates at various levels, directly or indirectly. Given the fact that export performance is historically the major determinant of the national income (which will be dealt with in detail later in relation to various variables), particularly with respect to national income and balance of payments, and it will remain so at least in the medium-term, the higher income generated to the community by satisfactory export performance may have a direct bearing on population growth, negatively or positively. Past demographic experience provides a number of examples with regard to this income effect. One can examine the manner in which the export generated higher income impinges on fertility and mortality levels at household level and macro level respectively.

With regard to household level impact, one can uphold the hypothesis that increased export earnings directly help to increase the per capita income/investments of the population and thereby contribute to the contraction of population growth. Like in other developing countries, in Sri Lanka the largest number of births recorded is among mothers from low income decides. According to the 1969 Socio Economic Survey (estimates), 63% of the mothers who have five or more children belong to households with an income of less than Rs 200/- a month (The five year Plan, despite increasing family planning activities, this trend has not been reversed. Perhaps increased social and economic engagements and the leisure time enjoyed by higher income group mothers may account for their relatively lower fertility levels recorded, compared with the members in the bottom level income strata.

8. In 1988, land-labour ratio was 257 persons per sq. kilometre (Review of Economy 1988).

9. A recent multiple analysis also confirms this by establishing that the size of households and child dependency ratio are most important variables, explaining the variance of per capita expenditure. (Hewawitharana ibid)

10. However, according to at least some projections for the period 1971 - 2001, the populations's working age doubles itself. (Hewawitharana ibid)

Whatever the causes for the various income effects on population, these figures definitely point to the necessity for providing a satisfactory income level to the community for a reduction of the natural birth rates. In this context, a higher income generated by exports plays a crucial role in providing the required income to bottom-level income-earners in the country.

At the macro economy level, export performance can also influence population growth by increasing the necessary education, health and other social service expenditure, which can influence fertility rates. Among these perhaps, the maintenance of free education would indirectly have an influence on reducing fertility rates. Free education caused the age of marriage to rise and to lower the family size for both males and females. For the females, free education postponed the marriageable age from 18 to 24 years (Rasaputram 1987). "Education also shattered the social barriers preventing women from entering the labour force. Moreover, the emergence of new types of economic activities more suitable for females such as textiles, clerical and administrative, encouraged women to enter the labour force in increasing numbers, particularly during 1983-1971." (Wilson 1976- p.174). With education, mothers' attitudes towards birth control are also likely to change. (Alwis 1982). After 1977, expansion of the textile export sector, which absorbed more than 150,000 females also gave a further boost to women to enter the labour force. Thus, femal labour participation rates increased from 15.0% in 1963 to 27.0% in 1981. Therefore, there is no doubt that free education was helpful in influencing the reduction of birth rates. However, the country could continue education expenditure only if there are substantial means of financing sources in which export income plays a substantial role.

Higher export-generated income may also directly help to reduce the mortality levels and increase fertility levels at household levels. Thereby, in some respects it may contribute to population growth as well. It is beyond doubt that a sufficient income is a basic determinant of the mortality and life expectancy rates in the country. For example, deterioration of living standards connected with low income may directly affect the mortality rates though increase of diarrhoeal diseases and respiratory conditions (Meegama 1982). Generally, there is a close relationship between the drop of mortality rates and improvements of economic and social base 10. In fact, "There exists a threshold beyond which there can be no further reduction in mortality when there has been no corresponding development in their economic and social base." (Meegama 1982).

On the other hand, maintenance of health and welfare services appears to have contributed to population growth rates (by reducing the mortality levels and increasing fertility rates). In Sri Lanka, some of the social and economic factors which directly contributed to the drop of mortality rates were transfer of exogenous technology (to eradicate disease), improved health services, welfare services and infrastructure network (Sanderatne 1975). The imported technological factor which was identified as responsible for near elimination of malaria around 1941 - 1948, was the widespread spaying of DDT during that period. The imporovement of general health conditions of the community brought about by an extensive health service network was helpful not only to eradicate other diseases like smallpox, yellow fever, cholera and plague, but also for the dramatic success of DDT spraying at the early stages by helping to curtail immediately, the number of deaths by malaria. (Sanderatne 1975). Similarly, welfare expenditure incurred for the rice subsidy and health influenced the living standards of the people and contributed to increase the life span by increasing, inter alia, productivity. Moreover, expenditure on infrastructure like building of roads and hospitals; the restoration of irrigation works and land settlement (which were some of the priority expenditures after 1931), too, were able to increase economic activities and the general wellbeing of the people. However, it goes without saying that these services and infrastructure needs financing in both local currencies and foreign exchange as capital and recurrent expenditure.

It has to be mentioned that the availability of sufficient foreign exchange reserves through exports in certain instances, played a crucial role in keeping the mortality levels down in the past.. For example, although the scientific and technological knowledge for the control of malaria was available even before (1946-1947), in which year the crude birth rate fell by 3.5 per cent from 19.8 per thousand to 14 per thousand, but was not utilisable in the country owing to a drop of export income during the war years and the period immediately preceding the war (Sanderatne 1975 - p. 167). In other words, had there been sufficient foreign exchange generated by exports to import DDT and necessary equipment for the application of DDT, the textbook case of Sri Lanka's dramatic drop of mortality rates in the forties would have occurred some years before (See Sanderatne 1975; also Corea G. 1975).

In this context, it is export income that has to play a crucial role in developing the economic and social base. All the above evidence led to the conclusion that higher export performance-generated income can influence the population growth policy effort indicator in a number of ways ■