CHILDREN AND DEVELOPMENT

The year 1979 has been proclaimed the International Year of the Child. Its aim is to focus worldwide attention on the needs and welfare of children in every country. The I.Y.C. also commemorates the 20th anniversary of the adoption of the UN Declaration of the Rights of the Child in November 1959. As this Declaration made clear, every child on earth has a right to be happy and mankind is duty bound to give the best it has to children. The fact that this happy childhood has never come the way of many millions of children in very many countries has made a mockery of the exalted terms of the Declaration.

In ten carefully worded principles the Declaration affirms the rights of the child—

"to enjoy special protection and to be given opportunities and facilities to enable him to develop in a healthy and normal manner and in conditions of freedom and dignity;

to have a name and nationality from his birth;

to enjoy the benefits of social security, including adequate nutrition, housing, recreation and medical services;

to receive special treatment, education and care if he is handicapped;

to grow up in an atmosphere of affection and security and, wherever possible, in the care and under responsibility of his parents; to receive education;

to be among the first to receive protection and relief in times of disasters;

to be protected against all forms of neglect, cruelty and exploitation and to be protected from practices which may foster any form of discrimination."

Finally, the Declaration emphasises that the child shall be brought up "in a spirit of understanding, tolerance and friendship among peoples, peace and universal brotherhood".

The UN's International Children's Emergency Fund (UNICEF) drew attention in the early 70s to the fact that every half minute one hundred children were born in the developing countries. It said every "twenty of them will die within the year. Of the remainder many will die during the following pre-school years, or will be handicapped throughout their lives due to childhood disease or lack of adequate nutrition. Of those who live to school age many will not get to primary school and only a very small proportion will have the chance of acquiring even a rudimentary education. Of those who leave primary school only a few will get vocational training. This situation is especially disturbing when we realize that three quarters of all the world's children under fifteen years of age live in developing countries".

It is against this background that the idea of an International Year of the Child was first proposed and on 21st December 1976, the UN's General Assembly passed the resolution authorising it.

Many of the rights and freedoms set forth in this Declaration were restatements of sections of the 1948 Universal Declaration of Human Rights and other earlier documents. But the international community was convinced in 1959 that the special needs of the child were so urgent that they called for a separate and more specific declaration. Twenty years ago, the special needs of children seemed urgent. Today, 20 years later, despite much technological and economic progress the world over, the needs of most children demand even more urgent attention. Current estimates place the number of children on our planet at 1,158 million. UNICEF findings have shown that nearly one third of these 1,158 million children live in conditions of abject poverty where life for them is by no means easy. Hunger and malnutrition, lack of hygiene and health, low levels of

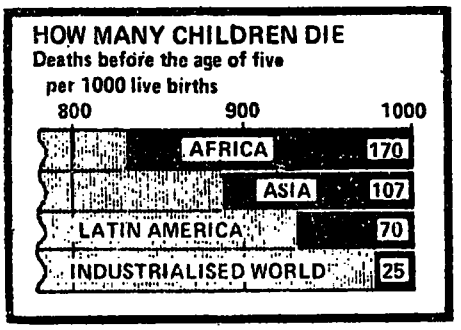
schooling and education, and problems related to the leisure, recreation and various corrupting social influences on children keep multiplying. A premature growing old for many a child who is forced into work, from the age of 6 and beyond, in order to enable him to eat and to increase the meagre family budget, is one of the many problems that face these millions of deprived children today.

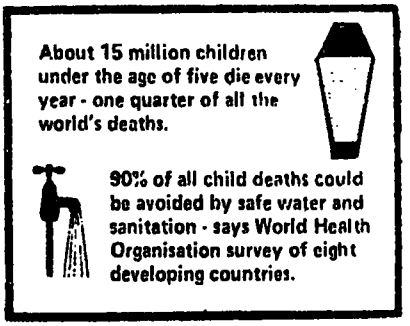
The situation of children as we see it gives a fair picture of the state of present day society itself within the various countries and also among the different social categories and age groups. Among them we see the different realities of the haves and the have-nots. The Rights of the Child, enunciated in the Declaration, have little meaning in this context. If such a declaration is to be given the serious consideration it deserves it must be observed and effectively implemented. Towards this end there is a body of opinion emphasising the need for the adoption of an international convention, a legal document binding on all its signatories.

The state and condition of children in general also reflects the state of society at any given time. There has been a mounting litany of intentions and constant emphasis within the international community on development and economic co-operation and raising standards of the poor people but conditions have not got better. For instance, we had it recently proclaimed loudly by World Bank President, Robert McNamara in his *World Development Report*, 1978 "Despite the remarkable progress which has been achieved, some 800 million human beings remain consigned to what I call abject poverty: their living conditions, characterized by malnutrition, illiteracy, misery, sickness, high rate of infant mortality and a low-life expectancy, escape all reasonable definition of human dignity.

"Not only does poverty subsist, but for certain strata of the population in rural Asia or Africa south of the Sahara, it is progressing". Almost half of these "human" beings are children.

There are many facts on children that rarely occur to those who don't pause to realise what real deprivation is. It is on record for instance that in developing countries every fifth child dies before reaching the age of five. In Latin America a child dies of starvation every 30 seconds. Particularly grievous is the plight of 'black' children in Southern Africa; in South Africa half of such children die before they are five years old.





In the Latin American, Asian and Middle East countries there still prevails the sub-human practice of putting seven-year olds into service in other families, where they are treated literally as slaves.

Young people in the developed countries are often corrupted by the mass media which propagate violence, sadism and pornography and destroy human ideals.

In a word, there is still a great deal mankind must do to give the rising generation the life that is their "birthright".

The growing disillusion during the early 70s with increase of production as the sole or primary indicator of success or failure in economic development, has helped to bring into focus the importance of the quality of life in the development process, and the needs to strengthen the economic and social foundation of a society for the benefit of everyone of its members. This change in outlook has also helped to place the human factor, and more specifically children, at the centre of the entire process of development.

Growth of production is therefore now seen as relevant in only a very limited sense, to the real purpose of development.

It is generally defined more precisely today as "a better life in the future for the people of a country". The question is who are "the people of the future"? They are, of course, the children of today and those still to be born.

We are also much concerned about full popular participation of people in the development of their own country, and in motivating people to contribute to their own development. A very definite motive and interest of Third World people in the development of their countries today is their desire to provide a decent life for their children, possibly a better life than they themselves are having.

There is also the central issue on the rights of children the world over, namely, that of providing privileged and underprivileged, haves and have-nots with the same environment and facilities for development. It is now accepted that the human future itself lies in the genetics of the human race, in our intellectual inheritance, or in biological terms in the human brains; and unless all children are given the opportunities to develop these gifts they will be consigned to the deprived groups.

This issue is convincingly argued through the following illustration, by an influential social scientist who states pointedly:

> "here again with a sharp jerk, we are brought back to the world's children in whose brains our inheritance is enshrined. By now, given the differential birth rates, perhaps five out of six children of the world's children born in the developing countries—that is, the the poorer countries. If we believe as most scientists do—that the inherent quality of people's minds is independent of race or geography, this can only mean that five-sixths of mankind's intellectual inheritance and future

is enshrined in the brains and bodies of the children born in developing countries. Five out of six of the world's potential Newtons and Einsteins are born in the world's developing countries. Yet while the potential Newton or Einstein born in a rich country has a reasonable chance to survive and, through proper education and training and proper selection, of realizing his potential genius, what are the chances of the other five potential Newtons and Einsteins in the developing countries to fulfil their potential promises? Practically none at all. Some among them will die prematurely, or will have their brain development stunted by early malnutrition or disease, will fail to go to school under qualified teachers, will live in environments in which their gifts are not detected and have no chance of being developed. What is the loss to the world at large, to all of us, of giving only a small part of our potential limited stock of talent and genius a chance of making a contribution to the future development of mankind? Even if we do not speak of genius of Newtons and Einsteins, how many qualified potential doctors, engineers, skilled workers and technicians, trained public servants, etc., are we losing because the great majority of the world's children born today are born into the environment of poor countries? Here as much as the question of the human environment—is an area in which mankind has a common major concern".

Child–Labour

One of the clearest manifestations of the disparity in the condition of children is evident in the institution of "child servant" or "child labour" common in most developing countries, particularly those that came under colonial domination.

Child-labour has come to be regarded as a problem reaching significant proportions in the Asian region in recent years. Estimates have placed the population under 15 years engaged in child-labour at about 4 percent of the total child population. At an ESCAP Regional Meeting in Manila in 1978 it was revealed that common sectors employing child-labour in urban areas, for children between the ages of 9 and 12, were that of artisans, sweet making, serving in shops etc. These activities are mainly based in the homes as family enterprises but invariably the children also get involved in the marketing of these products as street sellers. Children are also commonly employed in the service trades such as "shoe-shiners" or in various businesses such as street sellers catering to the tourist trade, as sweep sellers etc. They are also found in physically demanding occupations and manual work.

Quite often these children were found to have been taken out of school by their parents, who were unable to pay school fees, or in the case where there was no need for fees, other expenses to send them to school proved to be a deterrent. In other cases the parents estimation was that the children could contribute more to the welfare of the family through their work and perhaps if their children continued in school there was little hope that they would find employment at the end of it all.

Even the minority that are school-going from among the poorer sections, find they are unable to concentrate due to inertia, a lack of sleep etc. and as a result they fall behind their peers. The fact is that they don't have the time to spend on their studies outside the classroom and this makes it only more difficult.

Another factor that affects the educational performance of these children is the condition of poverty within their families. It results in a lack of a balanced diet for them with their falling ill regularly or unable to put in the same degree of effort as their better-nourished class mates. As these children fall behind in class, this acts as a further motivation to withdraw them from school and attempts by parents to get some work out of them. These children are usually not equipped for employment and engage in casual employment whenever the opportunity arises. Most often this form of child-labour is exploited and they are not given even the basic facilities and conditions that the labour laws provide. They normally don't have an idea of government regulations which are meant to protect all forms of labour. But even if they do the conditions of poverty within their families are normally an effective barrier to any form of protection with its ultimate consequences of dismissal. There is generally no effective supervision of regulations by the authorities and until such time this practice will not be wiped out.

Though-child labour is regarded by many as a social evil those who have to depend on it accept it as an economic practice. This could be clearly illustrated from the situation in India. A writer in the Madras *HINDU* argued recently that it was a social problem which has to be solved over a period of years. According to him available statistics show that 10.8 million children in India are labourers, despite the law against the employment of children, in arduous jobs, and if the parents of those children feel that the earnings by their wards helped to bridge the gap between a bare subsistence and acute starvation, it goes without saying that child-labour is a social problem.

Despite the law against child-labour and contrary to Article 24 of India's Constitution which lays down that "no child below the age of fourteen years shall be employed in any factory or mine or engaged in any hazardous employment", children account for 5.9 percent of the workers in the country.

In Tamil Nadu, child-labour is prevalent on an appreciable scale in some of the small-scale industries like match and fireworks factories and in the cottage industries such as beedi wrapping, handloom weaving, leather tanning, glass bangles manufacture, carpet weaving, mat weaving, tailoring and pottery and of these, the match and fireworks industry employs the bulk of young boys and girls.

There are 3,000 safety match units of all classes in and around Sivakasi in Ramnad district employing over a lakh of workers, of whom easily 25 percent are teenagers and seven per cent of them are between 10 and 14.

The children are school drop-outs. Reason, they cannot take advantage

of the free education provided by Government because of family circumstances. They are about a few of the thousands of children like them who have been compelled to make their choice between starvation and education, between the begging bowl or the home for delinquents and the match factory.

To disturb the set-up in the name of anti-child labour, it is felt, will affect the economy of the rural folk. The match industrialists, in response to Governmental pressure, did make an attempt to keep out children under fourteen from their rolls, but the parents fell at their feet and pleaded that their poverty would be aggravated if their children were denied work.

One other common form of employment in the urban areas of most Asian countries is that of engaging children upto 14 years of age as domestic servants in homes and restaurants. They work from early morning till late at night on minimum wages and leave facilities permitted only once or twice a year. These "live-in" domestic servants also face a great social and physiological disadvantage by being isolated from other children of their own age and this has often had the effect of stunting their ability to form relationships.

In the rural areas traditionally, child-labour is found in the form of unpaid employment within the family, either working in the land or doing domestic duties and engaging in different handicrafts and services. In traditional rural society this was an essential aspect of family life, but with the changing conditions and growing aspirations it is only some children who continue to labour. As in the case of urban areas it is largely the children from the less privileged families who find their way into child-labour. During the peak periods of harvesting and ploughing they are found to be working in fields alongside their parents. During the off season when their parents and elder brothers and sisters are searching desperately for any form of employment these children are found to be roaming the fields and thickets searching for firewood, tending cattle for the landowner or doing domestic duties in his house or searching for work.

The Situation in Sri Lanka

Much of the general Asian situation is reflected in conditions of Sri Lanka too, where the layers of poverty are considerably wide and the children within the poverty groups cannot hope to easily raise themselves out of this situation. The persistent problems that have affected the health and well-being of several of the country's disadvantaged children were symptomatic of the problems within the economy itself.

The Socio-economic Survey in Sri Lanka 1969/70 showed that of the income receivers as many as 48 percent were receiving an income of below Rs. 100/- per month at that time. A large part of these and the non-income receivers fall into a group described as "Poorest of the Poor". A team that surveyed the state of the Colombo District's Social Services and the Relief Services in late 1976 found evidence of the existence of such strata who were at the lowest levels of subsistence. To quote from their report:

"For this category there appeared to be no national identity but they seem to exist in local pockets of urban, semi-urban areas and in the rural areas. There is much said about the abundance of welfare services in the country but these groups were not even in a position to make use of a large part of these services such as health, education and the relief services. For instance, to avail of free health services they did not have the wherewithal, to meet travel expenses for medical treatment or to visit clinics. In the case of their sick children employed parents often had to forego their daily earnings until medical treatment was completely satisfactory.

To educate their children these parents had to meet costs of books, clothing, food and transport expenses as in the case of school-going children of better-off parents. Although education is free, attending school and gaining from education implies basic requirements for the child including an adequate stable home-life and this is what they sorely lacked."

The team observed:

"in a society which is heavily biased towards the giving and receiving of favours at all levels, the "Poorest of the Poor" are elbowed out in their progression to receive welfare services. They have to contend with petty bureaucracy, local animosities or political patronage. It was found that to keep themselves alive the "Poorest of the Poor" have to resort to a variety of desperate and often socially disapproved practices. "Children of school-going age, drop out of school or escape schooling and turn to casual employment, or they are parted from parents as child servants or given away for adoption to better-off families or encouraged to swell the ranks of child beggars scavenging for scraps of food. These children live on their wits and contribute to other crime, drug abuse, trade in illicit liquor etc.

Basic food and other rations if drawn, are often sold off to meet urgent and pressing commitments. The rising prices of food and other essentials have further depressed the family levels of living so that even the subsidised food given as a welfare measure is not utilised by the "Poorest of the Poor" group thus adding to the lowering of living conditions and resulting in malnutrition, ill health, disease, etc. It is also known that in terms of housing and shelter the "Poorest of the Poor" live in overcrowded or substandard slums and shanties exposing themselves and families to hardship, ill-health and lowering of the quality of family life.

These conditions can spawn a host of social problems which would involve increasingly heavy state expenditure in welfare services. The future indeed is bleak for these families who represent extreme disparity in the social development of our times. **The children especially have no means of development and growth to become useful citizens of the country or sharing in benefits of progress which have favoured other sectors and sections of the population".**

This situation lends further support to the broader view that poverty in developing countries is especially dangerous for the young. It seems to suck these children into a cycle from which they may not be able to extricate themselves—a cycle of poor mental and physical development, leading to the lack of skills or education together with a lack of opportunities, which in turn gives them no chance to lift themselves out of their condition of poverty. Viewing the situation in reverse it is maintained that "a well nourished, healthy population reduces the burden on the health services, brings down the spread of disease, raises living standards, improves the care of the young and increases the return of educational and other public welfare investment".

Professor of Human Nutrition at Colombia University, New York. Myron Winick has shown in a recent paper what this poverty cycle can do to a young child. Studies in South Africa, Jamaica, Mexico, Chile, Guatemala, India, New Guinea, Indonesia and many other countries, he records have shown that children malnourished during early life do poorly in school. Auditory and visual perception are impaired. The result—poor reading and writing. In addition, these children behave abnormally. They relate poorly

both to their peers and to their teachers. The result—absenteeism poor school performance, high drop out rates, and delinquent behaviour When these children reach adulthood, where do they go? What kinds of jobs can they get? They either join the ranks of the unemployed or perform menial low-paying jobs. Unless something is done for them, they start poor, they remain poor, and their children will be poor, malnourished and ready to start the cycle again.

There may be arguments among scientists as to the relative importance of nutrition, isolation, repeated illness or other components of poverty in producing these deficits but there is little argument that poverty and all which accompanies it, is the collective problem. This point is made emphatically by Professor Winick who maintains that the situation for the underprivileged and particularly for their children, could be changed if only the authorities concerned adopt a positive approach to tackling the problems of poverty. He argues :

"It must be said that this is not a problem to those who wish to keep the status quo. In fact, a population dulled by poverty and malnutrition early in life will supply a labour force for the menial, undesirable, low-paying jobs which are necessary if social change is to be avoided. To those in power the eradication of poverty may present a threat to a way of life which they do not wish to change. In the highlands of the Andes mountains, for example, goitre is very prevalent—a disease in which iodine deficiency causes severe mental retardation. Any visitor is struck by the numbers of "cretins" that can be seen carrying huge loads on their heads. For twenty years the population in the Andes has been studied. In fact, they are one of the most "studied" populations in the world. The solution is obvious and relatively inexpensive. For decades it has been prevented in many countries by iodinizing salt. The health authorities knew what to do and yet little is done.

To me, the only possible explanation is that the governments in question really don't care. In fact, they perceive these cretins as performing certain jobs better and with less resistance than could be done by others. As long as this kind of thinking continues we are not likely to see major changes in the approach of certain governments to poverty.

The first step in eradicating poverty is the realization of the problem in all its dimensions. Priorities must be reshaped with a view to *future generations*. To do that the young children must be reared in an environment where they are well-fed, well-clothed, and stimulated. This must occur even before the creation of adequate schools and working opportunities.

The problem in most countries, even the best meaning countries, is that this early period of development is not given enough attention".

Children and Health

The question is, how much of this situation do we apply to Sri Lanka? Among the ten articles of the UN Declaration of the Rights of the Child adopted in 1959 the very first article affirmed the right of the child "to enjoy special protection and to be given opportunities and facilities to enable him to develop in a healthy and normal manner and in conditions of freedom and dignity". Still another article emphasised "*the child . . . shall have the right to adequate nutrition*". Today, twenty years after this Declaration malnutrition and health remains very much a major problem in most developing countries. It is basically one of not having enough to eat, of not having the right type of diet and not knowing what a proper diet should be.

Nutritionists, paediatricians and other specialists in Sri Lanka over the past five decades have shown that there exists a relationship between dietary intake and income levels. Recent studies have established that the low income groups were always found to be inadequate in calories and proteins, and that their dietary intake was far below the prescribed standard. Health conditions of the poor everywhere in the developing world are basically similar. Their children's disease patterns consist of bowel-related and respiratory diseases and malnutrition. It is now a considered view that socio-economic development is a sine qua non for health improvement and the type of development that could reduce the dangers of many of these diseases through improved nutrition and better sanitation and health habits.

It has been estimated, however, that only about 10 percent of the population of the developing countries have access to organised health services of any kind. The alternative approach, being increasingly accepted today, is that of improving the health of low income groups through an integrated approach of nutrition (supplementation and education), of immunisation (improvement in sanitation and hygiene), and of family planning (family spacing) which could materially improve their health, while concomitant steps are being taken to improve their socio-economic circumstances.

Life-expectancy at birth and at a selected age is the most reliable measure of health status available. Although this measure does not take non-fatal diseases into account, it is closely correlated with many forms of morbidity and debility and therefore provides an index to the range and intensity of health problems. For the developing countries as a group life-expectancy at birth is estimated to be about 49 years (though Sri Lanka is an exception) compared with slightly over 70 years for the developed countries. The average life-expectancy at birth for the developing world increased from 32 years before World War II to 49 years by the end of 1960. See table below.

Average Life-Expectancy at Birth 1930-1970

	1930s	1950s	1960s	1965-1970
Developing regions ..	32.0	41.7	44.4	49.0
South Asia	30.0	40.6	43.4	49.8
East Asia ..	30.0	44.9	47.1	49.6
Africa ..	30.0	36.4	38.6	43.4
Latin America	40.0	52.3	55.3	60.2
Developed regions ..	56.0	64.6	67.8	70.4

Life-expectancy at various ages yields broader insights into health status than life expectancy at birth alone. To this extent Sri Lanka compares favourably with developed countries such as Japan and USA. In countries with low life-expectancy at birth, surviving the first year of

Life-Expectancy at Various Ages : by Country

Country	*Age* 0	4	2	10	15	20
Cameroons	34	40	42	41	38	35
Egypt ..	52	56	61	57	52	48
India ..	42	48	49	45	41	37
Sri Lanka ..	66	68	66	61	56	—
Japan ..	68	69	66	60	56	51
Mexico ..	58	62	60	56	52	47
Nigeria ..	37	45	45	47	43	39
Sweden ..	72	72	68	63	58	54
USA ..	67	68	65	59	54	50

life greatly increases the expected life-span between one and ten years of age as the above table on life-expectancy indicates.

The association between health status with regard to birth rate, death rate, infant mortality and life expectancy in a country, however, are not always consistent with levels of per capita incomes and GNPs as may appear in the table above. What appears to matter more is the satisfaction of the basic needs of the country's people and a steady all-round improvement of their living standards. What steps a country has taken in this regard are most revealing when judging the physical quality of life of its people. In the case of Sri Lanka a consistent allocation of funds by Government in the fields of health, education and nutrition and an emphasis on developing public investments based on the wider consideration of social benefits and income redistribution has not merely helped to lessen inequalities and income disparities within the population but also helped in an improvement in socio-economic standards. Thus, despite the comparatively low GNP rate Sri Lanka's infant mortality rate is much lower and life-expectancy higher than many Middle Eastern and Latin American countries with higher per capita incomes.

Within the country itself, however, there are notable variations of the 15 health districts. Jaffna has the lowest infant mortality rate which equates to that of Washington D.C. The highest infant mortality rate on the other hand is in the Kandy district; particularly in the central highlands where most of the estates are located.

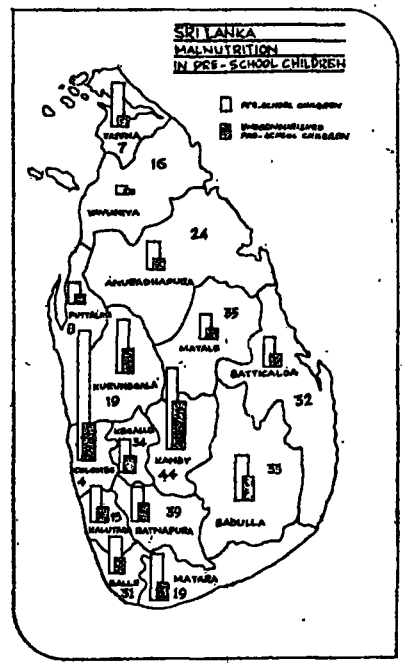
In Sri Lanka, as in many areas of the region, while demands on the health services and the cost of meeting them have increased over the years, there has been growing a strong competition from other sectors of the economy for the limited resources available. Funds allocated to these sectors, such as agriculture, industry and transport provide visible results as compared with the intangible and often invisible benefits from health services. Furthermore the prevention of disease demands adequate nutrition, reasonably good housing, proper water supply and sewerage disposal and innumerable related services. Much of this is dependent on the resources available and the priorities for the economy. Children, it is accepted, are the first to suffer from underdevelopment as much as they are the first to benefit from development activities and so too with the provision of health services and facilities.

Though statistically impressive the country's health services suffer from a number of deficiencies. The tradition has been to concentrate on the curative services while preventive services were not adequately developed and expanded. A closer look of the causes of the infant mortality rate show that they are intimately related to preventible factors and arise mainly from poor nutrition, inadequate environmental sanitation and inadequate housing.

The situation in Sri Lanka is not as bad as many Third World countries, as we were one of the first countries to appreciate the importance of correcting malnutrition arising from poverty by introducing the scheme of subsidised food as a war time necessity in the early 1940s. Direct government intervention in rice (and other food) procurement and distribution have continued to exist as the cornerstone of government policy and to improve consumer welfare and prevent loss of production through malnutrition. The nutritional status of the people was naturally looked after to an extent by such measures.

The major factors that determine the nutritional profile of any country are population growth, food production and the distribution of food. As we have seen Sri Lanka's food and nutrition situation is in many respects similar in nature, though not in magnitude, to the situation confronting many developing countries in the World.

The age structure of Sri Lanka's population (which stood at 5.5 million in 1935 and is nearly 14.3 million today) is regarded as unfavourable from the nutritional and economic standpoints due to a high dependency ratio. Children below 15 years constitute about 40 percent of the total population where 15 percent are under five years and 3 percent under one year. The situation is not likely to be materially different by the turn of the century. Furthermore, increasing living standards have brought about an increase in Sri Lanka's per capita intake of cereals which has reached about 75 grammes per head per day equivalent to 256 calories and 6 grammes of protein. Expert recommendations, modified to suit the physiological needs of our population, indicate that 2,200 calories and 48 grammes of protein on a per caput basis would provide the adequate diet. Availability in 1974 was 2,135 calories and 45 grammes of protein.



Source : *Ministry of Health - CARE Triposha Programme.*

Information on food distribution within the family is not available, but it is clear that calorie intake is closely related to per capita income. Since the poorest income groups have a substantially larger family size, the share of children that are malnourished becomes larger than the share of adults. It is this distribution dimension of malnutrition, the association between malnutrition and poverty—that gives origin to a larger incidence of malnutrition among children. Surveys have shown that at very low levels of income, very young children experience a substantially larger calorie and protein deficiency than adults and older children. However, the young child's consumption increases rapidly with additional income.

In Sri Lanka there are four major nutritional problems: Protein Energy Malnutrition; Nutritional Anaemia; and to a lesser extent, Vitamin A deficiency (Xerophthalmia); and Goitre. The increasing evidence of these nutritional problems was confirmed by the National Nutrition Survey undertaken in 1975/76 by the Ministry of Health, with assistance from the United Public Health Service, USAID and CARE. The survey documented the following problems in preschool children (6-72 months of age).

Protein Energy Malnutrition

Acute undernutrition or wasting (deficit in weight-for-height) was prevalent in all the Health divisions of the Island but the central highlands were found to be the worst affected. The survey also established that the problems of wasting was most acute in the second year of life, probably due to a poor weaning practice.

Chronic Undernutrition or Stunting (deficit in height-for-age) affected 34.7 percent of the population, being worst again in these central highlands. However, the central highlands areas also include a large estate population and this survey showed that the estate areas were the worst affected with a chronic undernutrition prevalence rate of 62.4 percent. Infant and maternal mortality rates too were highest in the central highlands.

Nutritional Anaemia

This is mainly due to iron deficiency and affects all age, sex and physiological groups, particularly children and pregnant mothers of the lower socio-economic group. The prevalence could be summarised as follows :

	Rural %	Urban Poor %
Pregnant women ..	52	49
Pre-school children	56	49
Adult Men ..	35	—

Vitamin A Deficiency

This was identified as an important public health problem in only two of the 16 health divisions of the country (Kegalle and Matara).

Endemic Goitre

Endemic Goitre is a problem in the South West Coastal belt and the Central regions of the country which have a high rainfall. Since the South West Coastal belt is the most densely populated area of the country and over 70 percent of the population reside within this area, this percentage of the population is said to be "at risk" of endemic goitre".

A leading nutritionist, has suggested that the most effective approach would be through a coordinated development effort. She recommends that "as a major nutritional deficiency is Protein Energy Malnutrition (PEM), the main strategy must be through a coordinated development effort with increased income generation, agricultural production and health and education strategies. It is important to close the calorie gap if the protein intake is to be correctly utilized. There must hence be a massive government intervention to maximize the output of energy per resource cost (i.e. the scarce resources/land. water and capital.)

RATES OF MALNUTRITION IN PRE-SCHOOL CHILDREN BY SHS AREAS

S.H.S. Areas	Infant Mortality Ratio for 1974/1976			Ranking of Malnutrition	Population Under Five Years in 1978	Gomez Classification				Waterlow Classification		
	1974	1975	1976			Percentage of 2nd & 3rd Degree PEM-Children	Number of Children in 1st Degree PEM	Number of Children in 2nd Degree PEM	Number of Children in 3rd Degree PEM	Acute Undernutrition (Wasting) % of preschool Children 8-71 months	Chronic Undernutrition (Stunting) % of pre-school Undernourished	Current Acute & Chronic undernutrition % acutely and chronically
1. Colombo	42	40	36	4	430,380	28.2	227,506	110,526	7,260	4.9	20.7	1.9
2. Jaffna	22	17	21	7	107,325	32.5	56,345	33,270	1,609	3.7	28.4	1.6
3. Puttalam	28	31	23	8	58,860	34.6	31,372	19,424	942	5.1	24.4	1.9
4. Kalutara	52	47	43	15	113,130	35.7	59,732	35,183	5,204	6.2	26.8	3.4
5. Vavuniya	23	24	38	16	26,055	36.4	13,757	8,910	573	5.8	29.6	2.3
6. Kurunegala	38	37	41	19	157,545	39.6	81,450	58,764	3,623	5.7	30.4	2.3
7. Matara	42	41	41	19	143,640	37.2	77,134	48,837	4,596	6.0	29.7	2.2
8. Anuradhapura	36	35	36	24	88,290	38.4	47,500	32,138	1,766	6.9	30.7	2.9
9. Galle	50	50	45	31	113,670	40.6	53,993	45,240	5,456	8.2	33.3	4.1
10. Batticaloa	45	50	49	32	81,270	42.3	37,628	31,289	3,088	8.4	36.5	4.0
11. Badulla	73	56	51	33	118,965	50.6	51,739	53,282	6,898	5.8	49.4	4.0
12. Kegalle	60	54	51	34	101,790	45.4	48,146	41,225	4,987	7.1	39.6	4.0
13. Matale	65	49	53	35	71,685	46.0	33,047	30,323	2,652	7.2	38.9	3.8
14. Ratnapura	66	63	64	39	101,250	49.7	43,958	46,699	3,756	8.8	37.3	4.1
15. Kandy	92	72	61	44	243,675	54.7	96,982	115,989	17,300	8.5	49.6	5.5
Total					1,930,770	42.1*	960,286	711,100	69,710	6.6	34.7*	3.4*

* Percentage Total Rural Sri Lanka

Source: *National Nutritional Survey and Registrar - General's Department*