

577.4 (548.7)

Library Copy

1567 ✓

NA-164

MULTI - AGENCY
COORDINATION
OF
ENVIRONMENTAL PLANNING
AND
MANAGEMENT

NA-164

MULTI-AGENCY COORDINATION
OF
ENVIRONMENTAL PLANNING
AND
MANAGEMENT

Based on guidelines (EHE/78.2) and Background
Paper (EHE/78.3) from the World Health Organization

Prepared by
Dr R P Jayewardene
&
Miss P E Juriansz

May 1979

The National Science Council of Sri Lanka
47/5, Maitland Place, Colombo 7
SRI LANKA

C O N T E N T S

	<u>Page</u>
I OVERVIEW STATEMENT	1 - 4
II DESCRIPTION	5 - 23
<u>Structures:</u>	
Actors	5 - 9
Health Aspect of Concern	10 - 12
Coordinative Arrangements	13 - 14
<u>Processes:</u>	
Communication	15 - 17
Decision-making	18 - 21
Execution	22 - 23
III COMPARISON WITH 'OPTIMUM' PROVISIONS	24 - 29
IV EXPLANATORY FACTORS	30 - 61
Role of Government	30 - 33
Social Relationships	34 - 36
Legal Systems	37 - 38
State of Economic Development	39 - 40
Social Planning	41 - 42
Bureaucracy	43 - 45
Public Health Organizations	46 - 52
Manpower Resources	53 - 56
Stimuli to Coordination	57 - 59
Resistances to Coordination	60 - 61
V REPORTER'S ASSESSMENT	62 - 63

* * * * *

PART I

OVERVIEW STATEMENT

Sri Lanka's civilization is over 2500 years old, but for nearly 400 years it was under foreign rulers (Portuguese, Dutch and British) and gained its independence in 1948. Thereafter Ceylon (now Sri Lanka) was governed by a Parliamentary system of government based on the British system. Last year, this country adopted a new Constitution which combines the Presidential form of Government and the Parliamentary system as well.

Although Sri Lanka is classified as a lesser developed country (LDC), there is ample evidence today that for several years preceding the conquest of the country by foreigners, technological and scientific skill were employed by the indigenous rulers of the past. The proof lies in the vast irrigation tanks and channels that they built, some of which remain even today; architectural skill as evinced in the ruins of religious buildings, palaces and baths; and recorded evidence of the fact that the main item of food (rice) was exported. There was also a system of indigenous medicine called Ayurveda which has played an important part in health factors and is practised widely even today.

When the country gained its independence in 1948 it had a dualistic economy. The British mainly concentrated on the plantation sector while the mass of the population engaged themselves in subsistence agriculture the main crop being paddy. The supporting services that were developed by the British were in the fields of Trade and Commerce, banking insurance and transport all directly concerned with their interest in the plantation economy.

The main concern of the local leaders who took over the administration was in the improvement of paddy cultivation. However, the income derived from agriculture fell short of the requirements of a rapidly increasing population and new aspirations of living standards.

In view of the above, successive governments placed strong emphasis on the diversification of the economy, modernization, of the rural sector and removal of social barriers to improve the standard of living of the ordinary man. Alongside these, all governments had to solve the population problem together with that of poverty. Thus a series of social welfare measures like subsidised food, subsidised fuel, free health services, and free education were introduced. However, very recently the subsidy on food was cut drastically in order to limit it only to the lowest income group.

Much effort was made to diversify the agricultural and industrial fronts by offering replanting subsidies, attractive credit facilities, fertilizers at subsidised rates, improved seeds and aided import and export measures. However, the opening of new lands under colonization schemes had adverse effects on the surrounding national forest reserves, the other forms of fuel being an expensive commodity to the rural population.

Sri Lanka is classified as a LDC purely on the basis of its GNP per capita which was Rs. 1,755/= in 1976 (US \$ 200). However, despite the very low GNP the Physical Quality of Life Index (PQLI) was relatively high and only slightly lower than most developed countries taking into consideration the literacy, infant mortality and life expectancy.

The development goals that Sri Lanka would aspire to attain are to improve the socio-economic conditions of large numbers of the less privileged section of the population rather than on merely increasing the GNP alone. i.e. the provision of the basic food requirements, clothing, housing, education and health services together with the basic appurtenances of modern society such as roads, communication systems and the supply of essential consumer goods at prices within the reach of the ordinary people and, particularly, the lower income groups.

In order to achieve this end, the development strategy of the government itself followed an open economy approach. The problems already created by concentrating development around Colombo is receiving the attention of the Ministry of Local Government, Housing and Construction which is working on the Colombo Metropolitan Area Development Programme. The Government has also given priority to the Industrial Promotion Zone, north of Colombo and for the accelerated development of the Mahaweli Development Project.

One of the largest problems hindering its progress is the high rate of growth of population and rate of unemployment - (1 million, in a population of 14 million). Also, 50% to 60% do not even get a living wage. The rate of population increase however has shown a healthy decline, in recent years. From 2.8% in 1963 to 1.7% in 1976. This rate of growth is still considered high. Moreover the highest rate of population increase is among the poorest sections of the community. It is recognized that a fast increasing population without commensurate increase in the social infrastructure, would result in many drawbacks, among which are over crowded class rooms and hospitals and the aggravation of the unemployment and housing problems.

Although the country is predominantly rural, there has been a large rural-urban migration to the larger towns - Colombo, Kandy, Jaffna, Galle and Kurunegala. This increase in urban population has created high density slums and squatter settlements possessing neither adequate housing nor infrastructure. The over loaded and unsanitary conditions stimulate and intensify the level of pollution which in turn increases sharply the probability and susceptibility to both air and water borne diseases.

The main public health problems in Sri Lanka stem from malnutrition, preventable diseases like bowel infections, poliomyelitis, diphtheria, whooping cough, tetanus and malaria. The recent resurgence of malaria, the incidence of which had dropped to almost zero in 1960, has caused serious concern. The lack of adequate safe potable water and poor environmental sanitation are the chief contributory factors for the spread of bowel diseases and consequent aggravation of malnutrition. Most rural and a few urban areas, do not yet have safe pipe-borne-water supplies or a central sewerage system. Linked to these factors is the over-all consequential influence of an uncontrolled environmental problem which did not, in the past, find a place in the forefront of government planning.

In 1973, subsequent to the Stockholm Conference on Human Environment, the Ministry of Planning and Economic Affairs appointed a standing committee to study the problem of environmental management and make recommendations to the Government. It was noted that in Sri Lanka, several agencies were involved in environmental management and several laws covering the subject were laid down. However, there was hardly any coordination between these agencies and the implementation of these laws was haphazard.

The concern about the environment is by no means confined to the Government Sector alone as several voluntary organizations too are very active and knowledgeable in this field. These interested groups felt that nothing concrete could be achieved unless the Government set up a Central Environment Authority having wide powers and an over-all control over most of the ministries. The Government has recognized the need for the creation of such an Authority and the law for its creation is being drafted by the Legal Draftsman's Department.

The Government has recognized the importance of development in relation to our resources both natural and human and the optimal management of those resources, and that development and the environment be considered as one inseparable unit.

The development projects undertaken, in addition to those already in existence have created a considerable demand for trained manpower. The sudden increase in demand cannot be met by the present rates of output of the existing Universities and technical training institutions. The movements of these grades to developed as well as developing countries, in particular the Middle East, has considerably worsened the situation. The Government has taken cognisance of this problem and rather than attempting to stem the brain-drain by coercion, have offered incentives for trained scientific and technical persons to remain in the country. Though the financial incentives offered can in no way match those offered by the other countries, it is hoped that the challenge offered to Sri Lankans to participate in national development will draw some of them back.

Of course, no amount of work at the Central Government level would produce the desired results without the active participation and co-operation of the people. To enlist this cooperation the government has appointed 24 District Ministers with the object of decentralization with an idea to intensify its administration. But even with the best will in the world a country cannot achieve the goal it has chalked out for itself without sufficient financial resources. Self help is the best help but there is a limit to human endeavour. Happily, Sri Lanka has the friendship and material aid of several countries who are readily assisting her in her development. For this we have to be thankful to the United Nations Organisations and its specialized agencies which have made a magnificent contribution to the welfare and happiness to people in all parts of the world.

DESCRIPTION

Structures

Functions of 'Actors' involved with Health Aspects of Environment -

Organizations and bodies connected with environment, their subjects and functions:

1. Ministry of Local Government, Housing and Construction.

Department of Local Government Service
Department of Town and Country Planning
National Water Supply and Drainage Board
Common Amenities Board

Subjects and Functions:

- a. Municipalities
Urban Councils
Town Councils
Village Councils
- b. Boards of Health
- c. Public Utility Service of Local Authorities including water service schemes, drainage, electricity and housing schemes
- d. Dairies and laundries
- e. Administration of the Housing & Town Improvement Ordinance
- f. Housing schemes
- g. Slum clearance through Local Authorities
- h. Investigation, design, construction and maintenance of water supplies sewerage and surface drainage and provision of technical services on schemes which are determined by Local Authorities
- i. Provision of essential amenities and services for the inhabitants of any area in which any housing scheme has been carried out or is contemplated to be carried out and the construction of buildings for such purposes.

2. Ministry of Plan Implementation

Department of Plan Implementation

Subjects and functions:

The coordination of the implementation programmes of government and non-government agencies for the achievement of national objectives.

3. Ministry of Finance and Planning

Department of National Planning

Subjects and Functions:

- a. The preparation of national plans
- b. Framing of economic policies to coordinate the programmes of different agencies - both government and non-government in order to achieve national objectives
- c. Coordination of policies and programmes of Ministries and Government Departments in regard to planning

4. Ministry of Lands and Land Development

Department of Irrigation

Land Development Department

Subjects and Functions:

- a. Irrigation works
- b. Planning of water resources
- c. Physical development and provision of facilities in colonisation schemes

5. Ministry of Health

Department of Health

Subjects and Functions:

Anti Tuberculosis Campaign

Anti Fialaria Campaign

Anti Malaria Campaign

Medical boards

Advice to Local Authorities on Housing and Town Improvements

Control of Epidemic and Endemic diseases

Health Legislation

International Quarantine and Sanitary Regulations

Health Education

6. Ministry of Industries and Scientific Affairs

National Science Council of Sri Lanka

Atomic Energy Authority

Subjects and Functions:

- a. Promotion, financing and sponsoring research projects
- b. Use of atomic energy for medicine
- c. Peaceful uses of atomic energy

7. Ministry of Agricultural Development and Research

Department of Agriculture

Ceylon Fertilizer Corporation

Agrarian Research and Training Institute

National Freedom from Hunger Campaign Board

Sri Lanka Fruit Board

Agricultural Development Authority

National Agricultural Diversification and Settlement Authority

Sri Lanka Sugar Corporation

Subjects and Functions:

- a. Agricultural research and extension
- b. Agricultural production
- c. Agricultural education
- d. Plant pests
- e. Work connected with FAO
- f. Import and export of planting materials
- g. State and co-operative farms
- h. World Food Programme
- i. Agricultural Diversification of Tea and Rubber Lands
- j. Agrarian services including minor irrigation functions
- k. Application of fertilizers

8. Ministry of Education and Higher Education

Schools

Universities of Sri Lanka

Department of Education

Technical Colleges

Subjects and Functions:

- a. Subjects of environment taught in schools and in some departments of universities

9. Ministry of Public Administration and Home Affairs

Department of Public Administration

Subjects and Functions:

- a. Control of Rabies

10. Ministry of Fisheries

Ceylon Fisheries Corporation

Ceylon Fishery Harbours Corporation

Subjects and Functions:

- a. Distribution and marketing of fish and fish products
- b. Establishment and maintenance of cold rooms, ice plants, and infrastructure facilities required for the development of the fishing industry
- c. Coast protection

11. Ministry of Labour

Department of Labour

Subjects and Functions:

- a. Safety, health and welfare of workers in factories
- b. Occupational Health and Research

12. Ministry of Food and Co-operatives

Department of Food Commissioner

Subjects and Functions:

- a. Food supply and distribution

13. Ministry of Mahaweli Development

Mahaweli Development Board

River Valleys Development Board

Subjects and Functions:

- a. Development of the Mahaweli River Basin, its tributaries and their trans-basin development

14. Ministry of Trade and Shipping

Bureau of Ceylon Standards

Port Commission

Subjects and Functions:

- a. Export of fruits and fruits products, food research
- b. Export training and research programmes
- c. Ship wrecks
- d. Ocean salvages
- e. Harbour, Oil installations other than those belonging to the admiralty

15.

The following voluntary agencies too are interested in various aspects of the environment

1. Sri Lanka Association for the Advancement of Science
2. Marga Institute
3. Sri Lanka Environment Society
4. Sri Lanka Natural History Society
5. Soil Conservation Society of Sri Lanka
6. Ruk Rekaganno
7. Wild Life and Nature Protection Society of Sri Lanka
8. Parisara Parshadhaya
9. Smithsonian Floral Project
10. Family Planning Association of Sri Lanka

Distribution of health related responsibilities

(a) Water supply and its safety (quality)

The public health authorities of the Ministry of Health are responsible for subjecting water to periodical bacteriological examinations. The Medical Research Institute conducts these tests in its laboratories. Most water supply schemes are serviced by the National Water Supply and Drainage Board in cities like Colombo and Municipal areas. However, in other areas, the local authorities are in overall charge through the Department of Local Government Housing and Construction. The Water Resources Board usually maps out areas of potential water supply. However, execution of these plans have to be carried out by the local authorities.

(b) Disposal of waste water and excreta (facilities)

The sewage disposals of various cities are supervised by public health staff either of the Ministry of Health or the local bodies.

(c) Education in Sanitation

Training of both medical and para-medical personnel as well as volunteers is conducted by the Health Education Bureau of the Ministry of Health. This Bureau undertakes several projects specially with regard to sanitation. Nurses, Sanitary Inspectors etc. are subject to training while in service. These persons visit the homes of the villagers informing them of the benefits of good sanitation etc. The Education Department has teacher training programmes in basic health, and sanitation in turn is imparted to the pupils in their change.

(d) Solid Waste Management

Solid waste of the city is either burnt or dumped in the areas allotted to the local authorities for this purpose. Proper treatment of these solid wastes has not yet been included in the management systems of the local bodies.

(e) Insect and Vector Control

The Anti-Malaria and Anti-Filaria Campaigns are involved in insect and vector control by the use of insecticides. The Department of Agriculture, is also responsible for the spraying of

insecticides as a means of crop improvement. Incentives are also given to farmers for the widespread application of insecticides and for the more scientific approach to agriculture. However, several incidents of early retirement of sprayers has been noticed due to skin diseases arising as a result of improper clothing. In addition, the storage of these chemicals used for insect control does not seem to take place with adequate precautions. Since chemicals like malathion are stored in such a careless manner, much of it appear to evaporate into the atmosphere, causing inconvenience to city dwellers living in the neighbourhood.

Quarantine services were hitherto provided by the Public Health Ministry, for store houses of grains but this is now found to be unnecessary.

(f) Pollution of air, water, soil and noise pollution

Functions relating to the above were assigned to the public health authorities either of the Health Ministry or of local bodies. Although some monitoring appears to be taking place, no action can be taken in regard to most instances of neglect since the conflicting authorities are both governmental.

(g) Hazards of Occupation

This aspect is looked after by the Occupational Hygiene Unit of the Department of Labour.

(h) Food Safety (as it affects consumption by producers and others)

This function is under the purview of public health authorities- food and drugs inspectors who, from time to time, inspect eating houses etc. for unhygienic conditions and potential sources of disease.

(i) Product Safety

The Bureau of Ceylon Standards tests most products for their safety and maintains a quality control division.

(j) Housing including sanitary aspects

Building plans are examined by the local bodies, where the views of medical officers are sought with regard to ventilation, sanitation requirements etc., before they are approved.

(k) Radiation

The monitoring of radiation is also a function of the Health Ministry. However, other than in hospitals and universities not much work involving radiation takes place.

(l) Accident prevention

The Ministry of Health is assigned with the responsibility of conducting periodical medical checkups of the drivers of public vehicles in order to prevent accidents due to ill health.

(m) Health aspects of transportation, migration, tourism and recreation

The health-side of migration is checked by the Ministry of Health at the points of entry and departure such as the sea ports and air ports for possible carriers of diseases.

Co-ordinative arrangements

Up to now, although the government has a system of comprehensive laws and enactments concerning most known environmental concerns, a well defined system of coordination is lacking. The type of situation here may be described under the category of "Ad-hoc problem-solving" among concerned agencies. i.e. Any conflicts or differences which come up from time to time between departments or ministries could be taken up before the Committee of Development Secretaries. This Committee consists of all Secretaries to the various Ministries, chaired by the Cabinet Secretary, and convened by the Secretary, Ministry of Finance and Planning.

Indirectly, however, there is scope for inter-sectoral dialogue as there is a cross section of representation on the Boards of these Departments which have functions which cut through various disciplines.

For instance, representing the Ministry of Health on the National Water Supply and Drainage Board is a doctor (Medical Officer) responsible for advising on the health aspects of matters coming within the purview of the Board.

The Mahaweli Development Board which is in charge of the implementation of a multi-purpose project titled - Mahaweli Ganga Development Project - has appointed a panel of Environmental Studies to do a comprehensive study on the Environmental Implications of the project and conservation measures necessary to reduce damage to the environment. This project is expected to bring a total of 900,000 acres under cultivation when it is completed within the next five years. This involves among other things, the clearing of about 650,000 acres of forest in the North Central part of the country. This panel consisted of several members from various institutions concerned with Environmental Management. The UNESCO - Man and the Biosphere Committee of the National Science Council of Sri Lanka is presently conducting this study into various aspects including monitoring of soil, water, fauna, flora, climate hydrology in addition to studying the socio-economic conditions of villages brought under ^{the} project.

Another instance of inter-ministerial coordination could be illustrated by the following: The Department of Health is responsible for health

education, and for the latrine installation programme. The Commissioner of Local Government is responsible for the operation of the Local Loans and Development Fund through which the government channels loans and grants for water supply and sewerage development works.

Although a certain amount of work can be done at the central government level it could never produce the desired results without the active participation and co-operation of the people. In this direction it is hoped that the new District Ministers system would help when it gets going. Already District Ministers have been appointed to the 24 Districts of the country. The various problems of co-ordination and authority at the different levels in the Districts are being evolved at the moment and it is hoped that the District Ministers will start functioning very shortly.

However, at the central government level too co-ordination is expected to improve with the establishment of the Central Environmental Authority which will have representatives from the following ministries.

- Local Government
- Finance
- Plan Implementation
- Lands
- Health
- Industries
- Transport
- Highways and Power
- Agriculture
- Education
- Public Administration
- Fisheries
- Conservation of Forests
- Department of Wild Life Conservation
- Department of Town and Country Planning
- 3 members of voluntary organizations in the field of Environment
- 3 members knowledgeable in the field of Environment

Communication

Judging by world standards (that of the developed world) our standards fall short because, apart from the shortage of sufficient technological equipment and skills, an inherent language problem exists. Up to 1956 English was the official language of the country. However, only in that year was Sinhala adopted as the official language with a reasonable use of the other indigenous language - Tamil. This change took place with the idea of catering to the large masses of people who were not English educated and to give the mother tongue its rightful place. However, this resulted in the main system of communication becoming strained. Today's Government Gazette is published in all three languages, English, Sinhala and Tamil. Another problem that arises out of this is that very often urgent work gets delayed due to the inability to communicate one's thoughts and ideas due to lack of knowledge of one or the other of the languages in use.

Deliberations in Parliament appear in the official Hansard but it is very doubtful that these records reach even a minute fraction of the population. Part of this, however, is communicated to the public by means of fragmented reports in the newspapers. These may be coloured according to the political leanings of the editor or press magnate. There are also Annual Reports of Heads of Government departments which the general public could use to inform themselves of the progress made by a particular establishment. Here again due to the shortage of paper and delays in printing and limitations of copies, the information relating to the activities of the Government seldom reach the average person. The dissemination of printed matter is often augmented by regular radio broadcasts. Hence the Government is able to inform the public of its many activities.

However, the reverse communication could also occur in one of several ways. In most newspapers there is ample space allocated to enable readers to give their frank views on matters that concern the public at large. Attention is usually drawn to the creature comforts of the citizens regarding either the shortage of housing in the city, the water problem etc. The Government often tries to remedy these lapses within their limited financial resources. However, at times when a group of individuals want to draw the attention of the ruling political party and want them to act with haste, they resort to the ancient

method of making a loud hue and cry about it. In fact the several voluntary agencies interested in the preservation of the environment carried banners bearing indications of the damage being done to the environment by the felling of trees, mining of coral, ill-considered land use practices etc. This had quite an impact on the political leaders of our country who being receptive to opinions of those interested in the welfare of the people took immediate action regarding these activities.

The Minister of State is in overall charge of the Department of Information, the Sri Lanka Broadcasting Corporation, the Department of the Government Printer etc. This year T.V. has also made its way into the local scene. The Information Department is the liaison agent between the Government and the public - the media being the press. Under this arrangement, a departmental head cannot give information to the press direct. This rule is more often obeyed in the breach rather than in the observance. This in turn disturbs the relationship between the Government department and the press. Here is another instance of red-tape functioning against the better interests of the Government.

In regard to scientific, technical and economic information, a vast mass of literature flows into the country regularly from all parts of the world, but there is very little or no organized dissemination of this information. In actual practice much of this information received, rests in the record rooms of the various Ministries. However, there is only one Scientific and Technical Information Centre in the country and it is still in its infancy. This was formed to provide the information requirements of scientists and research workers in the country.

The Sri Lanka Scientific and Technical Information Centre was funded by UNDP and has about 20-25 participating libraries in the system's net work. This cuts down drastically the duplication of books, periodicals etc. and concentrates on subject areas not covered by other local libraries in order to fill in the gap in the library resources of the country. A national depository for scientific and technical reports have also been started. This collection includes research and development (R & D) reports issued by scientific and technical institutes, seminars, conferences etc. However, a futile attempt

has been made to obtain the reports of local seminars, organized by foreign agencies like the WHO, UN etc.

As regards social and political data much of this is circulated in the form of hand bills etc. on the eve of either a general election, by-election or local government election. The political leaning of a newspaper is always evident from the articles appearing in them. This is natural in a country with freedom of expression and a free press.

In addition to the political views expressed in the newspapers, many useful articles appear judging from the upward trend of sales through the years. This also indicates that a very much greater proportion of the population is educated at least in one language.

As far as it has been possible to ascertain, communication rules and conventions have not been made freely available to Government staff as part of their training. However, under the Ministry of Public Administration and Home Affairs the Academy of Administrative Studies holds regular training courses for public servants. Under its auspices state officials are instructed in regard to communication rules and conventions as part of the inservice training.

Decision-making

In regard to decision making processes, Sri Lanka has the know-all to an appreciable extent due mainly to the unstinted assistance that her many friendly countries offer her by way of guidance in almost every area of development. This assistance comes in the shape of a vast quantity of informative literature received in this country from various sources; the knowledge imparted to our scholars who are afforded training abroad; and the experts who come to this country and offer their services in practical and active participation in the carrying out of schemes, as a part of foreign aid.

In Sri Lanka the financial resources necessary for rapid development are inadequate. We have depended in the past and are dependent even today on our traditional exports i.e. agricultural products. The income derived from these is insufficient for bettering the economic situation. However, the money that is now available is being spent as carefully as possible, although there is continuous criticism of the waste of money and manpower. There are government regulations which lay down in detail the rules in regard to safeguarding of revenue and control of expenditure. These and other manuals of instruction and departmental handbooks set out in detail the limits of authorization and expenditure at various official levels. Boards and Corporations have been set up, which have a greater degree of autonomy, whenever Government felt that a normal Government Department will not be able to meet its requirement.

We have the potential for decision making, choosing of standards, adoption of internal policy etc. Unlike in the past we also have in all the Ministries and in the larger departments specialized personnel for accounting procedure who seek and obtain the money required for various projects and services, supervise and control the day to day expenditure and finally prepare the accounting documents. All this shows that we have the necessary paper set up and necessary expertise. Government officials at departmental level who perform executive functions for carrying out Cabinet policy are often handicapped because of the very rules that have been laid

down in detail. One of the salient features in budgetary proposals in Sri Lanka is, under-expenditure, which also often arises from a strict adherence to financial regulations.

Under a recent set up there is much improved coordination among all Secretaries of Ministries in regard to planning and decision making. These Secretaries meet as often as once a week and help in making decisions quickly. Since the Minister of Finance is also the Minister in charge of planning, any departmental project of another ministry gets its plans approved before monetary provision is made and any difficulty in implementation and execution of projects can be ironed out because of the powers of the Executive President, who is in charge of Plan Implementation. This arrangement removes the earlier drawbacks arising from red-tape, lack of collaboration and coordination.

Annual budgets specify the time limits within which monetary provision has to be expended. Although under-expenditure referred to earlier has been an annual feature, the stricter control by the coordinating committees set up at secretary level tends to obtain the desired results in keeping to dead lines. The stricter regulations of progress reports from Heads of departments to each ministry and the treasury - on voted expenditure (recurrent) as well ^{as} on capital expenditure and advance accounts give an impetus to progress and adherence to targets and help in accelerating the completion of any undertaking. Whilst all this appears to be very good on paper, in the practical working of any enterprise some drawbacks are beyond the control of a particular department in charge of the completion of the project because it has to depend on more than one other department for the supply of services such as water and electricity.

Coordination and proper participation have been recognised all along as being essential factors for the smooth implementation of any plan. In a major project the clearing of the site and provision of the road way will be the responsibilities of ^{the} Buildings and Highways Department. The other chief participating authorities such as those responsible for the provision of adequate water supply, electricity, furniture and office equipment and lastly personnel will be such establishments as the relevant water works authority, the central electricity board, the government stores and the central recruiting authority or job bank.

Apart from limited men and material available to the participating authorities, very often, the working programme gets disturbed and thrown out of gear owing to priority having to be given to some other more urgent and important scheme or project subsequently undertaken. In highly developed countries, contingencies such as these are met by obtaining the services of non-government organisations whereas in Sri Lanka one is obliged to obtain the services of government organisations. Hence, again, as in most other fields of governmental activity, it is the inadequacy of financial resources that retards development.

Successful and efficient participation is very often lacking owing to dissatisfaction among participants. This is very often due not to managerial defects alone - but because it is often beyond the control at managerial level to provide the basic needs for the staff at all levels. To give an example some government establishments have had to start functioning in some dilapidated rented buildings, for want of funds to acquire a suitable building or to put up a new building for the purpose. Such a building which is usually acquired at short notice often lacks the minimal requirements to provide satisfactory conditions for vigorous and whole hearted participation, eg. whilst the country is becoming more and more aware of the ideal conditions that are necessary for the functioning of an organisation at peak efficiency and maximum output, the haphazard and make shift working conditions obtaining, fall far short of the standards prevailing in progressive countries. In fact one even finds standards that can be described as primitive, obtaining in certain work places.

Arising from these shortcomings much time has to be devoted to dialogue. Very often failure in some enterprises is attributed to managerial defects. Whilst this can be true to some extent very often the defects are due to factors beyond the control of the managements. This is particularly so in state enterprises. In the industrial and commercial world, success may be measured by the quantum of profits, but in state activities which are not profit making ventures but social services, one fails to see the wood because of the trees. Government has to give the lead in regard to labour matters and though conscious of the basic standards required, it finds it difficult to supply them at the pace they are demanded.

In State organisations it has now been realized that, unlike when Sri Lanka was under a foreign power, the individuals who work in the organisation must feel and be made to feel that they are actively participating with

the management in achieving a particular objective. In this aspect all parties must be given a hearing and this is now being done much more than in the past. Soon after Ceylon achieved independence in 1948 such ideas as Whitney Councils were introduced and later such innovations as Suggestion Boxes were introduced in government establishments. Also staff conferences became a regular feature. Unfortunately these conferences are now confined to executive or staff officers and as such they are unfortunately looked upon as managerial powwows. The other workers such as clerical and minor grades have their own conferences under trade union auspices and as such restrict their deliberations to their needs in regard to working conditions, their remuneration and welfare facilities. Thus, in the broader sense, participation by all members of an organisation is wanting in the sense that the planning and decision making for implementing plans or programmes are confined to the executive or staff officers and top officials of establishments.

In Sri Lanka it is often said that people work better in the private sector than in the public sector; that in the former there is a greater output than in the latter; that personnel in the former sector are better disciplined than their counterparts in the latter; and finally that the private sector provides higher remuneration and better working conditions than State establishments. It was also common knowledge that good work was recognised and rewarded in the private sector more readily than in government establishments. In view of the reasons given above there is far greater participation in private organisations than in government establishments. The exemption from income tax of all State employees, the raising of salaries from time to time and the provision of various other facilities such as better transport services, are factors that are likely to improve matters.

Execution

The execution of the various development projects undertaken in Sri Lanka is by the specific institutions having the know-how, capacity and technical personnel required for carrying out such ventures. The initial idea either originates from the politically effective sections of the population or from actual needs felt by Government officials and consultants (both local and foreign) capable of suggesting plans which are acceptable to the Cabinet of Ministers.

The Planning Ministry is then commissioned to draw up a project proposal which encompasses all the expenditure recurrent and capital, equipment and manpower resources etc. necessary to execute the plan. The Planning Ministry which is now part of the Ministry of Finance, better referred to as the Ministry of Finance and Planning, is charged with the responsibility of making plans and providing the finances. The allocation of finances will be in terms of local expenditure as well as the foreign exchange that will be involved. If foreign aid is required, the Department of External Resources, which is under the purview of the Ministry of Planning, has to request the various funding Agencies for aid e.g. UNDP, UNESCO, FAO, UNEP, WHO depending on the field of the project.

Once the project commences, the Ministry of Plan Implementation is in overall charge of the progress of the project. The whole monetary system involves an elaborate system of progress reporting on a quarterly basis, by all public organizations. The Ministry of Plan Implementation enlists the services of the relevant departments in the publication of a document which is made available to the public. This document is made available to the public in order to draw criticism both favourable and unfavourable from various levels of the population. This presents a wider forum where remedial action can be decided upon.

The national operations room maintained at the Ministry of Plan Implementation, is a device for monitoring progress of developmental activity. Every production oriented Government institution is monitored on charts giving anticipated production for the quarter and the actual amount produced. The Secretaries of all Ministries could view the progress made by each other's Ministries and make timely suggestions and recommendations, if necessary. A case in point is where

the Sugar Corporation had spent a vast amount of capital on the Sugar Plantation and by the time it was ready for cropping, the ministry had fallen short of targets due to their inability to recruit the required manpower. However, in a developing country where unemployment is the governments major problem this particular situation was not in keeping with statistics available on unemployment.

This question was solved by active collaboration and discussion at the highest level and necessary personnel immediately recruited to carry out the harvesting operations. The Ministry of Plan Implementation is the focal point for reviewing progress and managing feedback on experiences. Very often it is found that the original plans, although appearing rather simple on paper become unrealistic while in operation, thus necessitating modification of the initial plans to suit the prevailing situation and conditions when possible.

These meetings of Ministry Secretaries form the ideal forum for dialogue between the various units in the public sector in regard to decisions relating to priority areas. With a view to accelerating development the government has given all incentives to both the public and the private sector, in order to encourage investment. The ratio between private and public sector investment at the present time is more favourable due to policy decisions creating a better investment climate. Thus the level of financial participation has increased sharply to reach a system of mixed economy.

The State Banks increased their interest rate on deposits in order to encourage savings, which the Government could utilize for development. These Banks also increased the interest rates on over drafts and loans to augment funds for the same purpose.

- (a) In the past it would appear that nature looked after the needs for a balanced environmental atmosphere providing good health and prosperity for the country. Unlike in most other countries Sri Lanka being only, 25,000 sq. miles in area we have a number of rivers starting from a mountainous central portion of the island and flowing in almost every direction into the sea. This, together with the fact that we have the north west and south west monsoons almost over-lapping each other providing sufficient water for the natural vegetation as well as for the agricultural activities of the people. It is mainly in the northern and north central portions of the island that there is a scarcity of rain and it is this area that is intended to be served by the Mahaweli Irrigation Project - one of the biggest projects ever undertaken by the government. With the increasing population and the intensification of agricultural activity man interfered with nature by cutting down forests etc.. Again, with the gradual increase in constructing buildings, more and more trees were cut chiefly from State land. This met the ever increasing demand for timber and though the government restricted the felling of trees to permit holders only, unscrupulous people exploited the virgin forests to serve their own ends.

There is no recorded evidence of any interest or concern shown by people about the danger to the environment as a result of this indiscriminate felling of trees. It is only in the very recent past that an awakening has arisen in regard to the damage caused to the country, as a whole. To take one example, when timber was required for the Sri Lanka Plywood Corporation much of it came from forest reservations, and only a vigorous campaign launched by certain private societies forced the government to take notice of the seriousness of the effect that this denudation of forests caused.

- (b) The average voter in Sri Lanka had his immediate problems. He had certain political problems, such as the language issue,

racial problems. He also had problems about unemployment.

He had problems of the ever rising cost of living. Therefore when the politicians sought his vote they made promises in regard to the solution of these problems. Therefore except for a very negligible group of persons, who were directly involved in the preservation of land, forests, fauna and flora, wild life etc., the country at large was not concerned. Even political leaders never mentioned this subject of environment in their political manifestoes, and it was not one which found a place for broadcast on political platforms.

- (c) In Sri Lanka, several agencies deal with environmental problems pertaining to their respective spheres of work - Department of Town and Country Planning, Department of Labour, Department of Fisheries, Department of Archaeology, Ceylon Tourist Board, National Water Supply and Drainage Board, Local Bodies, Department of Health etc. They derive their powers from various laws such as the Fauna and Flora Protection Act, Crown Lands Ordinance, Zones Law etc. Though there is an awareness of environmental problems, no integrated approach to these problems has developed.

There are several committees coordinating the activities on the environment. The main ones are the UNESCO - Sri Lanka National Committees for the Man and the Biosphere Programme, National Science Council Statutory Working Committee on Environment, Bureau of Ceylon Standards Committee, National Committee on Inter Governmental Hydrological Programmes and the committee on Land Use Potentials in Sri Lanka.

- (d) Norms and Standards for the purity of food, environmental quality of land, water and air etc., soil conservation, protection of catchment areas, watersheds, streams, and river reservations, control of pesticides, safeguard of human settlements have been fairly well laid down in the laws and Acts of the Bureau of Ceylon Standards, Crown Lands Ordinance Act (1947-1949) the Colombo Municipal By-Laws, the River Valleys Development Board Act, Control of Pesticides Law, Housing and Town Improvement Ordinance, the

Town and Country Ordinance etc. However, implementation of most or nearly all of these have been very difficult or near to impossible.

- (e) The committee on Land Use Potentials in Sri Lanka initiated recently under the auspices of the National Science Council will investigate and report to the district Minister on the best species which could be grown in the various sections of the cyclone devastated areas of the Eastern Province. A subsidy for coconut replanting is already being given although this may not be the best species that could be grown in that area as it takes 9 years to start bearing. Other short-term crops may be more suitable under these circumstances. Furthermore coconut may suffer if another cyclone is to hit that area which lies in the cyclone belt. The findings of this Scientific and Technical Committee would be made available to the District Minister.
- (f) & (g) The Mahaweli Irrigation Project (a multi-purpose project) will result in the clearing of about 650,000 acres of natural vegetation and the conversion of land which now received seasonal rainfall to areas which will be irrigated and subjected to year-round cropping. The National Man and the Biosphere Committee recognized that numerous factors of the physical, biological and social environment will change drastically and recommended to the Mahaweli Board that these factors be given its due recognition in the planning stages of the development project. It also stressed that its success would depend not only on the engineering works but on the factors mentioned above as well, and, continuous monitoring of the environment was recommended to serve as a early warning against all environmental hazards such as pollution, soil salinity, pests and diseases etc. so that timely remedial action could be taken. The Committee will take advantage of the knowledge gained by other countries which undertook

projects of this nature and will take precautionary measures for example, in Pakistan in the early 1950's, 20% of all irrigated land was seriously damaged by water logging or salinity. With a view to overcoming these problems and forecasting conditions of risks the National Science Council has requested such bodies as the universities (Faculty of Agriculture, Faculty of Science - Department of Zoology, Department of Botany, Department of Chemistry and Department of Geography) and the Land Use and Hydrology Division of the Department of Irrigation to monitor the Fauna and Flora, water quality, socio economic changes and hydrology respectively. All these studies have got on the way, and are progressing quite satisfactorily.

(n)&(i) **The** national environmental interest is laid out in the Constitution of the Democratic Socialist Republic of Sri Lanka chapter VI - Directive principles of State Policy and Fundamental Duties.

The following are extracts from it which illustrate the goals, policies, objectives rights and responsibilities of the state in relation to providing a healthy environment for its people.

"The state shall protect, preserve and improve the environment for the benefit of the community!"

"The state shall ensure that the operation of the economic system does not result in the concentration of wealth and the means of production to the common detriment!"

"The complete eradication of illiteracy, and the assurance to all persons of the right to universal and equal access to education at all levels".

"The realization by all citizens of an adequate standard of living for themselves and their families, including adequate food, clothing and housing, the continuous

improvement of living conditions and the full enjoyment of leisure and social and cultural opportunities".

"to protect nature and conserve its riches".

Even though many governmental and non-governmental groups are conscious and aware of the environmental issue, and that environment must be treated as an aspect of economy and society, since finance is a scarce resource in Sri Lanka, the most difficult task that confronts the government is one of reconciling development with environmental protection & management. The ever-riding concern of the government is the matter of acquiring foreign exchange and frequently this is the criteria applied when reaching a development decision. There was great concern that if environmental consideration increased costs then such measures would not probably be implemented. Emphasis was apparently placed on the introduction of environmental matters at very low or trivial costs, both in economic and political terms.

- (j) Health problems in Sri Lanka do not arise out of an incapable public health authority or its policies, the main problem is characterised by severe financial and manpower constraints. Although the proportion of the total health budget going to preventive health was gradually increased to 25% in the very recent past, anti-malarial activities were taking up half of these funds. This was due to successive droughts and increased activity, particularly gumming, together encouraging mosquito breeding. The increasing maldistribution of medical facilities and personnel which developed during this period therefore resulted in a decline in the quality of health care provided. The over-crowding of large hospitals and underutilization of small curative institutions continued to be a characteristic problem of the health service.

In some base and large district hospitals equipment remained idle for lack of trained staff. The water supply and sanitation

levels are low. Although approximately 09% of the urban population, 75% of the estate population and 5% rural population, have access to piped water supplies, more than 90% of these come from unprotected surface water sources, and no system is assessed as consistently safe because of prevailing intermittent supplies, poor treatment and insufficient chlorination. Of the 510 bacteriological samples taken of piped-drinking water supplies in 1970, although limited in number, frequency and coverage, 37% had evidence of faecal pollution and 30% had unsatisfactory chemical quality. In addition there is no treatment of sewerage.

The scope for decisive policy intervention in many areas of preventive health does not lie solely or primarily with the Ministry of health but involves related sectors such as housing and water development.

- (k) There are insufficient resources of trained manpower and facilities to execute policies on the environment. In Sri Lanka although the government has to tackle the dual problem on unemployment due to unskilled labour, and those persons trained in fields irrelevant to the needs of the country on the one hand as well as that of migration of skilled personnel including doctors, engineers, science and agriculture graduates, and middle level technicians on the other. The government has taken adequate steps to curtail the intake of students to courses in the universities which are not of national importance but has increased the number of students to those courses such as development studies, science, medical, engineering and technical courses.

Although the law on the environment is awaiting discussion in Parliament, the execution of its various policies through the various ministries once the law is passed will depend on the availability of personnel to carry out the work.

PART IV

EXPLANATORY FACTORS

Role of Government

- (a) The Government of Sri Lanka is not a Federal Government. As such there is no marked degree of distribution of powers at different levels of government. This is because there is only one legislative body called the National State Assembly (Parliament). In other words unlike in countries like Malaysia and India where there are several states, Sri Lanka has only one law making institute. However, there are in this country other bodies such as Municipal Councils, Urban Councils, Town Councils and Village Councils where the power to legislate is confined to matters relating to the collection of rates on buildings, plant and machinery and lands. This is because the Acts of Parliament cover all parts of the island and the enforcement will be the duty of such bodies as the Central Courts Police etc. There is in fact the Central Government as such and local government bodies but the Central Government has such an overall power over local government bodies that very little autonomy is enjoyed by the local bodies except in well defined purely local affairs. To illustrate this phenomenon many people in a large city like Colombo, where both the Central Government (Parliament) and the Municipal Council function, every person in the city will know the member of Parliament of the electorate to which he belongs but very few will be familiar with ^{the} Municipal Councillor representing his ward. This is because he has very little business with the Council.
- (b) The general law protects private ownership and security of such ownership, and the government which is bound to honour its own law is restrained from disturbing this ownership unless in emergencies such as the existence of civil unrest or during periods of Emergency Rule (ER). Then again the party system which has many weaknesses has the virtue of respecting public opinion. In other words with universal franchise no party would like to be unpopular because of the danger they face at election time. Affairs of this country are also covered by the UN Charter etc. A few years ago there was apparently no restraint in regard to acquiring concerns overnight at the whims and fancies of the ruling party. At the present moment the ruling party has such a powerful majority that there is hardly any restraint on its actions as it faces hardly any opposition eg. if the government

proposes a piece of legislation in Parliament relating to the acquisition of some form of private property, the opposition in Parliament has absolutely no power to prevent its passage into law by an overwhelming majority. The only restraint that seems to prevail is a sense of fairplay.

- (c) The Government conducts its economic activities in establishments such as Corporations and Boards. It is the general view of most people that most Corporations and Boards are over-staffed, that money is wasted on unnecessary expenditure such as the use of several sets of forms and the misuse of State vehicles for private purposes.

It is also fairly obvious that owing to ill-timed and ill-located investments, lack of foresight, managerial defects and inefficiency, Corporations are compelled to sell articles below cost, or even to destroy spoilt products.

The Government is also fully conscious of the fact that there is corruption at several levels and bribery is not unknown at all levels. Then again inefficiency all round often leads to the non-collection or short collection of duties. One feels that if the correct duty is collected, according to the rules and regulations, on all articles coming into the country, there will be a considerable increase in revenue. This applies also to revenue collected on account of income-tax, wealth-tax, estate duty etc. Whilst tax evasion is something found all over the world, it is felt that Inland Revenue authorities are not collecting all the tax that it should rightly collect. This is borne out from the remedial measures taken by the new Minister of Finance in his last budget.

- (d) The Government has set up labour tribunals which have greatly helped in resolving industrial disputes and employer-employee conflicts. The Government has also tightened the rules and regulations such as those relating to tenders island-wide or world-wide, as the case may

be, in order to safeguard that investments are made in the best possible way. This practice ensures that interest groups are not allowed to make large profits at the expense of the Government or members of the public.

- (e) Coordination has been given top priority as it, in effect means, the reduction of inefficiency in handling a service to the public in the quickest possible way with the least expense to Government.

This responsibility depends largely on the good-will existing between the Heads of Departments which are involved in providing that particular service to the public. Though comprehensive Acts of Parliament and Regulations may exist, the human component is most important since the enforcement of Acts and Regulations lie in the hands of State employees.

Non-government organizations too play a very important part in providing successful social service to members of the public. No government institution can provide all the needs of its employees and therefore must look to non-government bodies too for coordination and collaboration in providing certain essential comforts, such as physiological or survival needs, of the men who man the government institutions. For example, in transport services provided by Government the working staff of relevant departments like the Government Railway and Transport Board look to local bodies and non-government institutions too to provide wholesome food and suitable resting places, where the basic amenities are provided. In this aspect the Government has no scope in the sense that there are no governmental establishments providing the physiological needs for the public at large or even for its own employees ie. amenities such as canteens, periodical medical examinations and aid etc. Public transport was until recently provided solely by the Government and in that sphere there is inter-government coordination. With the opportunity now being extended to the private sector to operate public transport services there will be ample scope for coordination between government establishments and private companies.

However, to mention a few instances of lack of coordination between government institutions -

- The lack of coordination has seriously affected the unloading of ships which bring food etc. to the country. The slow harbour clearance and turn around of ships are delayed. There should be much

quicker allocation of berths, discharge of goods and clearance for these cargo vessels by increasing storage space and expediting the movement from harbour ware-houses to the stores of the consignees and from there to the retail outlets in the provinces.

- To give another example, government approved the setting up of a paddy milling complex in close proximity to an area of Archaeological interest. When the milling complex began operation, it was found that its wastes damaged ancient ruins of Archaeological interest. Lack of planning and coordination gave rise to this situation and the Government had to order the closing down of the milling complex.

- The tourist promotion campaign of the Tourist Board which goes on providing additional accommodation for tourists without sufficient thought to the improvement and expansion of water services etc. in order to prevent inconvenience to the other residents of the City.

The characters of social relationships

- (a) The Government has passed various Acts and, under the common law the rights of individuals, companies, trusts, certain societies etc. have been protected by these laws, eg. law of contracts, law of property, law of inheritance etc. These laws are very comprehensive and cover all individual rights that one can think of. They are also strong in the sense that they have survived an extremely long period of usage and enforcement. On the other hand the laws protecting community rights are comparatively few and relatively weak. One might even say that whilst certain community rights are enjoyed by one section of the people they may not be beneficial to another. Taking for example, an organization such as a cooperative society or thrift society with a constitution which lays down the rights of the entire membership, it may be possible that the majority of members may group themselves and outvote a minority group. This results in a position which might create the impression that certain laws or rules or regulations may be beneficial to one set of people and less attractive to another, although both groups of people belong to one and the same organization.
- (b) In a country such as ours which has been under the rule of foreign powers, the enjoyment of intangible property rights by virtue of incumbency was prevalent to a high degree. It is well known that the ruling powers offered very small wages to their officials. But there were attractive intangible advantages accruing to those officials and these are perhaps, better known as fringe benefits today. For instance, officials of the type of chieftans, who were paid very small salaries gained much in the form of gifts given to them for authorising various concessions required by the villagers. This was because those chieftans or Headmen were in charge of almost everything in the village. However, this practice is diminishing and today these benefits are given to individuals in positions of authority only in exceptional cases.
- (c) The participation of individuals and groups of individuals in policy processes is a salient feature in party politics. The voter is in constant touch with his MP and any matter affecting the former are

brought to the notice of the latter. Where a matter is important, as the MP is compelled to act, pressure is exerted to bring it to the notice of the Minister concerned and through him to the Cabinet. In the same way groups of individuals or bodies, associations, organizations etc. are always active in the pursuit of getting what they want or improving what they already got. In this context credit must be given to the Government for heeding the cry of voluntary organizations, individuals etc. for the need to create an Environmental Authority under the Prime Minister or President.

In a democratic society such as this the Government subordinates the interests of a few to suit that of the many.

Since 1948, both individuals and groups of individuals can feel more and more satisfied that they are given a hearing. This is because of the power of the vote, knowledgeable and sensitive press and the willingness to heed constructive criticism. It would thus be seen that, broadly speaking, individuals as well as groups have the opportunity of participation in bringing about changes in policy. However, the question of separating policy questions into national and sub-national levels is difficult. At the present moment a member of a minority group heads the opposition in Parliament and individuals or groups can through their MPs air their grievances in Parliament where both national and sub-national questions are discussed.

- (d) In Sri Lanka we refer to the voluntary help rendered for community projects as "shramadana" service. Here a number of individuals drawn from various levels of the community get together without remuneration and clear the jungles, open up roads etc. for the common good of its people. Such projects which cannot be undertaken by government and semi-government establishments, urban councils, and village councils, as they are not within the ambit of their constitutions, are conducted by these groups of individuals or private bodies to provide the amenities they want to have in the area. Whilst the greater part of the supervision is done by employed persons such as government officials, teachers etc. much of the actual work is done by local residents and the members of their families. Traditionally some rich persons in the relevant community offer financial assistance to cover the cost of food for

those who participate in these projects. Very often school children are drawn into them and naturally the work undertaken by these groups is of a temporary nature and completed during week-ends and public holidays.

In Sri Lanka, where Buddhists outnumber followers of other religions, one of the common projects traditionally undertaken under Shramadana is the rendering of assistance for work in Buddhist temples etc.

Key characteristics of the legal system

- (a) Presently in Sri Lanka, we have the National State Assembly (NSA) (Parliament) and it is the supreme legislative authority. It also considers and has to approve all laws and by-laws.

Very often a Ministry prepares a 'Cabinet Paper' on a proposal approved by the Minister. When the Cabinet approves the proposal, the Ministry originating this proposal gets a bill drafted by the legal draftsmans department. The bill is then presented to the NSA together with a statement giving reasons for, and the objectives of the proposed legislation. When the bill is passed by the NSA, it becomes an Act of Parliament.

When the bill is presented to parliament, an opportunity is given for discussing the proposal and any member of parliament can speak for, or against the bill as a whole or suggest amendments to any of the provisions.

Invariably, when an Act is passed, parliament also passes subsequently a set of regulations in order to implement the provisions of the Act. The regulations will enable the provisions of the relevant piece of legislation to be administered by the minister and or the head of the relevant department.

- (b) All Ordinances and Acts that have been passed in Sri Lanka are contained in the Legislative Enactments of which there are several volumes. They have been indexed and codified without leaving any room or difficulty in regard to reference. The regulations or the subsidiary legislation are also contained in a separate set of volumes known as the Revised Edition of the Subsidiary Legislation (1956). Acts are all contained in the Legislative Enactments of Sri Lanka (1956).

The codification is sound and indexing is such that one could trace a particular bit of legislation under the particular subject a person is interested in. There has been no criticism about contradictory laws being made, hence we can assure its absence from our legislation.

(c) & (d) There is nothing in the law which prevents any person from seeking and obtaining redress when he has suffered loss of any economic rights. But in practice, in day to day experience, there is a large percentage of people in Sri Lanka who are not sufficiently educated even in their mother tongue to understand the law and have effective access to it, without the assistance of an attorney at law. This is because the legislative enactments have yet to be translated into the vernacular. An Attorney-at-law must be retained to have ones suit argued in a Court of Law. As the rich people were able to retain a better Attorney then the poor, the chance of obtaining redress was greater in the case of the rich, although the judges and the law itself make no difference between the two.

Every party that comes into power does its best to govern the country in a democratic way. Every party that woos the popular vote strives its best to remove those disadvantages which are inseparable from an under developed society i.e. poverty, illiteracy and lack of opportunity.

The stage of economic development

- (a) Sri Lanka belongs to the third world and is referred to as under-developed or a developing nation. According to the degree of development it has achieved and the economic independence it has so far gained, Sri Lanka can be said to be on the right path for rapid advancement.

The Government has begun to realize that planning in the past as regards the siting of factories as well as the discharge of their effluents has not been satisfactory and has begun to take precautionary measures to reduce to a minimum the hazards mentioned earlier. Under a new proposal for the establishment of an Environmental Authority that is now being translated into law, several Ministries will be administering the regulations under the new Act by way of coordination.

- (b) Like all developing or third world countries Sri Lanka is economically dependent on the richer nations for aid in various forms. All these dependent nations are members of world organizations like the United Nations Organizations (UNO) and with the guidance given by the main body and its specialized agencies the component countries help each other in areas of economy e.g. when a disaster occurs in a country due to natural causes like cyclones, several countries render assistance not only to absorb the shock of the disaster but also to rehabilitate the affected areas and the people.

Under the Colombo Plan and several other schemes, several countries have been rendering tremendous assistance to Sri Lanka for its development. Projects such as the Gal-Oya Scheme could not have been completed and the Mahaweli and Uda Walawe Schemes conceived and launched without the economic assistance which has readily come from various developed countries like the USA, France, UK, Canada, China etc.

One of the milestones reached in coordinating economic assistance to Sri Lanka was the Colombo Plan under which we have not only received considerable finances, but also received the valuable assistance of experts who provided the know-how and training for this country to start various industries and projects and to expand enterprises which have already been set up. It would seem that one of the essential ingredients for the effective functioning of the coordinating machinery at an international level is the holding of conferences, seminars etc. where the representatives of developed and developing countries meet.

- (c) To some extent we could say we have the potential for evolving sufficient managerial and technological skills to combat adverse effects of industrial development involving environmental problems and hazards.

Under the Colombo Plan and Commonwealth scholarships scheme etc. an opportunity has been given to Sri Lanka to obtain first hand knowledge and training in several fields in developed countries such as UK, USA, Japan etc. This is because a few individuals from Sri Lanka are annually afforded training scholarships in these and other countries at government to government level.

On their return to this country these scholars or trainees are placed in positions of authority to improve the existing organizations or to create new establishments and coordinate activity in various fields of industry, commerce, science, technology and research.

As a result of this there is a satisfactory means by which this country can acquire adequate managerial and technological skills and expertise to work in existing fields and also to open up new areas of industrial development. Knowledge so acquired in fields of agriculture is also manifesting its advantages in increasing the yields and improving the quality of agricultural products on which our economy is so heavily based.

The states and character of social planning

(a) The need for careful and intensive planning was felt at the initial stages of Sri Lanka enjoying independence and an organization was set up for that purpose. Under every government that Sri Lanka had, there was a Ministry for Planning and Economic Affairs/Ministry of Finance and Planning etc. Rightly or wrongly each succeeding government indulges in criticizing the planning of the previous government as being inadequate or bad. It is often felt that the planning is done chiefly by a set of government officials (often referred to as bureaucrats) who are thought of as a brake in the machinery of progress. In fact they serve as a convenient scape-goat.

Officials often have to be prepared to shoulder the full responsibility for the many failures which can be attributed to faulty and inefficient planning.

The country has had the benefit of the advice of very competent foreign organizations such as the IMF, World Bank and their views or recommendations have not been implemented for lack of sufficient finances or because the local officials did not agree with these recommendations.

Since there have been regular changes of government it would indicate that the people regard the governmental planning as an instrument of social and economic control has not been beyond criticism.

(b) & (c) As stated earlier one would hardly think that any political power is associated with any planning organ. For this the existing party system is largely to be blamed because political power seems to be the be-all and end-all of political aspirations.

In other words parties seem to be striving hard in order to achieve political power and seem to woo the popular vote on promises which would give immediate advantages to the voter. This attitude seems to retard the build up of patriotism.

An outsider viewing this might get the impression that the voter as well as the politician are not prepared to make any sacrifices for the greater good of the country.

With the regular changes of the party which forms the government, no government has had sufficient time or stability to execute important plans which considering their importance and magnitude, would naturally take several years to complete.

- (d) One major project which is already being monitored and will continue to be monitored is the Mahaweli Project. Environmental monitoring which covers areas such as fauna and flora soil, water and socio-economic conditions are being studied. Continuous studies of this nature will form the basis of an early warning of possible environmental deterioration.

Character of governmental bureaucracy

- (a) The effect of a political change on an organization or leadership position will depend on whether the institution is a service, like the Police, Health service, Public Works or Postal and Telecommunication service, headed by public officers in permanent pensionable posts, or an institution like a Corporation or Board where each government can have persons of their own choice at the top.

The shortcomings that are obvious today are that the choice of the voters do not bring about changes at the heads of services to the extent that one would expect in a democracy.

- (b) The responsiveness to policy changes depend on those who implement them. Policy changes are not necessarily produced by those that continue to function at managerial level despite change in party. To ensure that these policy changes of the government are carried out, there is need for the following:- (i) Weeding out of obstructionists saboteurs and hence to ensure cooperation; (ii) constant consultation with the people in order to gather their wishes.
- (c) The size of an organization may be determined by the budgetary allocations made. Although the government may realize what the ideal size of an organization must be, it is not possible to give effect to this without striking a compromise with its monetary resources.
- (d) The complexity of organizations may involve questions which revolve around equipment and labour. In a developing country such as ours, we are unable to keep pace with the rapid changes of machines and equipment. A labour force with a low output makes the position worse.
- (e)&(f) The specialization of functions and skills is not made use of to its maximum as we still find square pegs in round holes, as it were. This is exemplified by the fact that we find in certain organizations, the Head who is a specialized technical officer weighed down with administrative duties and hence being unable to make use of his training and time for his speciality.

In other instances officers sent by departments for training abroad through various funding agencies may find that the training they receive is totally irrelevant to the work of the department which actually sent them. Another factor often experienced is that the training is linked with sophisticated equipment. Non availability of such equipment prevents the full use of the training in developing country, like Sri Lanka. However, without such training too we could not call ourselves 'developing' and instead would remain for ever underdeveloped.

- (g)& (h) In most government institutions today work has not been precisely allocated and powers distributed to obtain the best results. The ambit of responsibility, distribution of power, and delegation of authority is often not clearly put down on paper. In addition eg. in the state owned tea estates, the man on the spot is not allowed to act on his own initiative and enterprise. The delegation of authority is one of the chief characteristics of the private sector and is also one of the main reasons for the successful operation of private ventures. Unfortunately the decision making power of managers appears to have been substantially reduced under state ownership. One recommendation has been the need to provide incentives to managers in order to improve the quality and output of state owned tea plantations and other state organisations. One often hears that there is no appreciation of the fact that responsibility goes with authority resulting in managerial shortcomings.

A noticeable drawback in our administration is that whilst considerable attention is given to the discovery of ^{and} / punishment for faults and lapses, very little or no recognition is given for good work. In other words although there is provision for not only recording censures but also placing commendations in officers personal files it is extremely rare to find commendations given to officers. Incentives of this nature for initiative and drive are wanting. There is also no compensatory incentives for hazardous occupations although in some instances risk allowances are given and, under the general principles governing labour laws, compensation is paid for actual loss of life and limbs etc. However, in cases where dangerous employment is concerned for instance on a tanker, the Ceylon Shipping Corporation offers risk allowances as a form of incentive to attract the workers.

- (i) Political vendetta has raised its head in many countries, and although Sri Lanka is happily untainted with serious forms of political vindictiveness many Heads and Deputies of government establishments work with a sense of fear of possible political victimisation on the change of Government. This fear runs down the line and damps the enthusiasm and confidence so necessary for initiative and drive in State organisations.

In the present set up of Government one might find that the Head of a department has not changed whilst a new Deputy has been appointed by the new government. This results in a lack of cooperation, trust, and confidence and the protection of ones domain is of vital importance to a public officer. Party politics is responsible for these drawbacks.

- (j) With the current school of thinking as regards decentralization (as against centralization) by such innovations as the setting up of District Ministries it is hoped that a reduction in domain follows as a result.

In this context where the Government is striving to improve services to the society at large, it might be necessary to sacrifice economy unlike in conducting a private business. Centralization brings an enlargement of domains and less employment opportunities, whilst decentralization is likely to bring about improvement of social service output, quality and efficiency. This seems to be the better path, and the present Government has been quick not only to realise this but also to implement the change by enlarging the ambit of provincial and district establishments.

Public Health Organisation

- (a) The political status of the public health service (or preventive medicine) receives as compared to curative services is the same, as both come under the purview of the Ministry of Health headed by the Minister and the Director of Health Services. But professionally medical personnel prefer to do curative work for their own edification and financial gain.
- (b) The Deputy Director in charge of Public Health is one of five Deputy Directors under the Director of Health Services. The Deputy Director in charge of Public Health has several Superintendants of Health Services under him. These in turn have the Medical Officers of Health, Public Health Inspectors, Midwives, Nurses etc. under them.

However, in the Municipal areas all the public health functions are under the purview of Local Government bodies such as the Municipal Councils, i.e. in areas like Colombo, Kandy, Jaffna, Galle and Kurunegala.

Because of this dual authority for public health which is not found in the curative services many administrative difficulties arise. To give an example of lack of coordination between these two authorities, when a complaint was made by the public with regard to air pollution by malathion stored practically in the heart of Colombo city, it was not only difficult to fix responsibility for the lack of foresight in choosing a suitable site for storage of the malathion, but it was also found difficult to remedy the lapse quickly. In fact those who could do so left the area for temporary residence elsewhere.

In the government's efforts to combat the danger of rabies incidence, the Colombo Municipality has taken adequate steps to eliminate stray dogs where as in the environs of Colombo, which fall outside the purview of the Colombo Municipality, the stray dog menace continues unabated for want of organisation and sufficient funds.

- (c) There is plenty of lip service as regards preventive medicine. However, although among the leaders it is felt that 'prevention is better than cure', it is not appreciated by the vast majority of persons in the country. Hence, working within the limited budget allocated to the Ministry, and catering to the greater immediate

needs of the average citizen we find that three times of the fund allocation is for curative rather than preventive medicine. However, this gap is narrowing down gradually as the economic and literacy level of the citizens improve. "Monies spent out of the national budget on preventive health are totally disproportionate to the money spent on curative medicine" - so said the Hon. Prime Minister when he addressed the gathering at the seminar on 'Environmental Protection and Management'.

- (d) The more enterprising and industrious medical personnel have no hesitation in seeking to pursue a career in preventive medicine by and large as it covers a much wider field in medical professionalism and status. This is because the advanced professional qualifications are obtainable only on the curative side. This is most emphatically so in the case of surgery where some personnel become eminent and even attain world fame. Hence, in the medical profession, the public health service is regarded as second rate compared to the curative services.

In the past compulsion was used to give a training in health work to persons following medical courses, because medical officers felt that devotion of time to health work was not remunerative and there was a time when government medical officers were not allowed private practice. As the government has since permitted private practice doctors are more willing to engage themselves in public health work as they can do curative work for remuneration outside normal working hours.

- (e) In Sri Lanka more and more attention has been given to the assimilation and dissemination of knowledge in regard to many services. Following the example of western countries Boards and Committees have been set up to obtain the latest information available on health matters in general and drugs in particular. Quite apart from the Ministry of Health even other ministries eg. the Ministry of Agriculture also affords facilities for Health Officers (HO) to educate themselves in regard to various pesticides and insecticides, their proper use and safeguards against their adverse effects, their misuse and excessive use etc.

(f) The Epidemiology Unit of the Department of Health Services continuously monitors the water meant for human consumption at different points in the city. However, although their findings necessitate cause for concern, the Municipality can do nothing about it since the existing sewerage system had been constructed so long ago, and has not been expanded in ratio to city growth. It had been brought to the notice of the Health authorities that the overloaded sewerage system had so many leaks in it that it was surprising that no epidemic had broken out in the city. However, a new sewerage system for the city and suburbs is in the planning stage.

Another health hazard is due to gem-pits haphazardly being dug up by individuals in their search for gems. These unfilled pits are breeding places for the malarial mosquito. A joint operation has been undertaken by the Ministry of Health and the State Gem Corporation in order to fill in these pits. A subsidy of Rs.75/= is given to those villagers who, in normal circumstances would not include toilet facilities for their homes, for the construction of the same. A foreign aided programme of immunisation for Tuberculosis, whooping cough, diphtheria and polio is conducted continuously irrespective of the incidence of the disease.

Another very serious health hazard in populated areas is the danger from house flies. The need to provide incinerators has been realized many years ago, but even in Colombo, the scavenging system is far from adequate; incinerators are insufficient and chemicals are in short supply. The blame for this state of affairs has to be attached to lack of funds rather than to want of knowledge. Sufficient literature has been made available to Sri Lanka by several friendly countries in addition to funds and equipment in the shape of foreign aid but this assistance is still short of total requirements.

The few amenities that have been provided have been in the larger cities such as the urban areas whereas in the rural areas of the country primitive standards still obtain despite the fact that MPs and government officials in charge of health services in those areas are very much alive to the dangers that exist from open cess-pits and absence of incinerators for the proper destruction of refuse.

But there are many instances where the larger section of the population which consists of uneducated and semi-educated people, do not readily

comply with the advice given by leaders of their community in regard to health matters. For example, in the rural areas and sometimes even in the urban areas, many people continue to consume whatever water is available to them without boiling or filtering. Open drains and food exposed to flies are two of the many other health hazards.

To sum up briefly, although the mechanics of hygienic living has been adequately imparted to the people, the inability to spend on the necessary equipment, the implementation of health policies, programmes and services at many levels continue to be far from satisfactory. In other words, the knowledge is not lacking but the financial means are inadequate to translate the precept into practice.

- (g) The Director of Health Services heads the team of public health workers at the central and peripheral levels except those in the municipalities. Under him are several Deputy Directors in charge of various health concerns. One Deputy Director is assigned with the subject of Public Health. He is in charge of the Assistant Directors or Superintendants of Family Health, Health Education, Environmental Health, Anti-Malaria Campaign, Anti-Filaria Campaign, Anti-V.D. Campaign and Anti-Leprosy Campaign.

Each Assistant Director or Superintendant works fairly independently of each other. However, the integration takes place at the level of the Deputy Director who has to deal with all aspects of Public Health.

In addition there are 18 districts marked out and headed by a Superintendant of Health Services. Under his supervision will be the Medical Officers of Health (MOH), public health nurses, public health midwives etc. Here too the integration of the various aspects of health is performed by the Superintendant of Health Services.

In the municipal areas the municipal councillors provide the funds and lay down the policy in regard to various matters. In regard to health, however the Chief Medical Officer of Health and his assistants implement the policies and programmes.

(h) The effectiveness of public health leadership in inter-sectoral decision-making is quite ineffective at sub-national levels. For example, if a hospital or maternity home has to be repaired the public health authorities are at the mercy of the whims and fancies of the authorities of the Department of Buildings, who are in no hurry to undertake and complete the task assigned to them.

All these topics of concern are discussed and decisions taken at the Ministry of Plan Implementation, the members of which are drawn from the several ministries concerned.

The appointment of District Ministers with their district secretariats will ease this problem, because the government has at the same time provided the necessary authority for local government bodies such as the Municipalities and Urban Councils in the urban areas and other local bodies elsewhere to raise revenue from new sources.

(i) One could say that the making of manpower resources available has very low priority when considering the public health services. For example, out of the 102 MOH areas 30 are vacant. There is a dearth of personnel at all levels including public health midwives, inspectors nurses etc.

This position arises from the fact that although it has been possible to ascertain the number of personnel necessary for health work, in certain areas, it has not been possible to physically employ them because of the non availability of appropriate establishments such as clinics in which they could function and the lamentably shortage of housing facilities for the personnel. Furthermore even if some public health authority discovers some serious environmental health problem affecting the area under his control he would not be able to eradicate or minimize the problem because he would have no authority over those responsible for the problem.

(j) The capacity and activity of public health authorities in environmental epidemiology and research may be considered as rather efficient as they are manned by qualified personnel. For example, they have marked out the goitre areas as well as the filaria and malaria belts, after competent study.

Areas which are vulnerable to endemic or epidemic problems are often discovered too late because of insufficient preventive control.

To give an example, it is well known in Sri Lanka that a disease like filaria was prevalent to an alarming extent in a township called Dehiwela situated less than 10 miles from Colombo. This was attributed to a mosquito which bred in the stagnant water. If this township had been provided with a pipe-borne water supply from the same reservoirs providing the city of Colombo with water and caused the filling up of wells and other uncovered sources of water supply in the area, this disease might have been eradicated long ago. But as in many of the other instances, economic factors have stood in the way.

As years passed by the problem has been tackled very enthusiastically and intensity of the disease progressively reduced. With future development the country will be able to afford the money to eradicate this type of disease completely. This is one of the reasons why the present government has given top priority to its development programme.

(k) The status of public health values, knowledge and behaviour among the various population groups depends primarily on how economically sound they are. For instance the priorities marked out by different categories of people differ in that as their economic status improves their level of education also improves. This brings about a greater stress being laid on improved sanitation and public health values. It was reaffirmed at the 4th Conference of Heads of States of Governments for Non-aligned countries held in Asia in 1973 in its economic declaration "Economic backwardness as the worse form of pollution".

Broadly speaking the people of Sri Lanka can be divided into three main groups - (i) Upper class which consists of western educated or wealthy people; (ii) the so-called middle-class and lower-income group. Whilst persons in the upper income group have the necessary knowledge and money to appreciate public health values and conduct themselves at par with people in advanced countries, people belonging to the middle and lower income groups are often unable to think on anything beyond their bare physiological needs. One of the chief problems facing any government in Sri Lanka has been unemployment.

Each succeeding government has been doing its best to solve this problem but the provision of employment or rather adequate employment has been difficult because no government has been able to arrest the rise in population to a significant extent. Thus as in any other matter, a sound economic footing is the prior necessity for greater consciousness in the provision of health welfare.

- (e) The articulation of public health activities with general governmental organizations do not appear to be very satisfactory since some development programmes are advancing with great speed, without much heed being taken of basic health amenities, e.g. a Medical Officer of Health ie. a representative of the Health Ministry is on the Mahaweli Board and acts as a liaison officer in planning all schemes connected with the accelerated programme. However, only one well is constructed to provide the residents of 20 houses with water for all purposes although all members are well aware of the health hazards this will create. Here too, public health has had second place with the question of monetary values getting first preference. Hence in countries of the Third World where finances are poor we tend to neglect preventive health.

Another drawback here is because the local bodies had not been functioning in the normal way, as elections to these had not been held for nearly a decade. With the functioning of local bodies and newly set up District Ministers one could expect improvement in all directions including public health. But of course, as in most other things the success of the country's development programmes will be the key factor in providing the necessary financial stimulus for greater activity in public health work.

Manpower Resources

The phenomenon of the brain drain has been the cause of much concern as a source of a reverse transfer of technology from Sri Lanka to developed countries, which on certain assumptions can be shown to exceed the flow of resources from the developed nations to Sri Lanka in the form of aid. From the point of view of Sri Lanka the brain drain has serious effects on the domestic allocation of resources and is of immediate policy concern.

The outflow of skilled personnel to developing countries is also quite substantial. In recent years the outflow to the newly rich Middle East countries in particular was quite significant. However, certain features distinguished the migration to developed countries from that to developing countries. In migrating to the former, most professionals leaving Sri Lanka appeared to have made plans for taking up permanent residence abroad. Those leaving for developing countries had entered into fixed term contracts and appeared to have less opportunities and inducement to stay on and had more prospects of eventual return to Sri Lanka. The outflow to developing countries was thus more in the nature of "temporary" rather than permanent migration. The composition of the outflow to developing countries was also significantly different in terms of skills from the pattern of migration to developed ones; there was a larger proportion of doctors in the emigration to developed countries, whereas the outflow to developing countries consisted mainly of accountants and engineers. However, many of those going to the Middle East fall into the category of unskilled and semi-skilled labour, such as masons, plumbers, carpenters etc.

The repercussions of the outflow of skilled personnel have undoubtedly being great. The outflow of engineering personnel has had serious adverse effects on the building up of the indigenous technological capability in several fields. For example the State Engineering Corporation made a systematic effort to acquire the expertise required for the preparation of the engineering designs and civil engineering works for big industrial plants. Similarly, State organizations responsible for irrigation works were able to train highly skilled cadres which could have reduced foreign technical assistance for major

irrigation projects to a minimum. The outflow of experienced engineering personnel has, however, seriously hampered these efforts. Certainly the reverse transfer of technology in the medical profession has had far-reaching and adverse consequences for the maintenance of health care system, and there is ample evidence of detrimental effects in other fields such as social sciences, natural sciences etc. It may be appreciated that, even where absolute and relative figures of emigration are small, the departure of such personnel may be critical, especially when it depletes the ranks of scarce senior professionals.

The Compulsory Public Service Act of 1961 had been formulated initially as a measure primarily for securing the services to the public sector of professional personnel that had received training whether in Sri Lanka or abroad, in part or wholly at public expense. Broadly the Act laid an obligation upon professional personnel to serve in the public sector, if called upon to do so, during the first five years after graduation. Such provision was made, however for the interruption of terms of service for the purpose of further training. The implied purpose of the Act was not especially to stem the emigration of professional personnel which at the time was negligible but to increase the potential supply of such personnel to the public vis-a-vis the private sector. In addition, free education at public expense placed a duty on professional personnel to serve first in the public sector for a period. In particular the shortage of the supply of skilled manpower to the public sector was felt most acutely in the fields of engineering and medicine.

In cases where professional persons were sent abroad at public expense for purposes of further training or education rather than for taking up employment, the Government had instituted a system of bonding. Under this system, trained personnel would be required to sign an agreement by which the trainee, for each month's study on training abroad, would undertake to serve one year in the public sector, up to a maximum of 15 years. Such agreements would come into effect upon the trainees return to the country. Initially, such bonds had been redeemable upon payment by the trainee of an agreed sum in respect of the cost of his training. However, this facility was withdrawn in 1974.

The lack of adequate training facilities required for those science graduates from Universities makes it even more difficult to implement projects of national importance. The far-from-adequate intake of science graduates to the science faculties due to inadequacy of facilities to cope with larger numbers of students makes the situation even worse. Although only to a limited degree, the university and research institutes provide opportunities for trained personnel of exceptional ability to work in an academic environment. Only two post-graduate schools have been established - Medicine and Agriculture. Some young graduates who are interested in research are generally employed by research institutes and universities with a view to qualifying further. These persons are employed as Research Assistants and are either permanently employed by the research institute or are temporarily employed by the National Science Council of Sri Lanka to service a project. These Research Assistants posts do not bring in sufficient remuneration and attract only a very limited number. Hence many projects although well planned cannot be implemented due to lack of suitably trained staff.

The Ceylon Institute of Scientific and Industrial Research (CISIR) acts as consultants to the newly formed Greater Colombo Economic Commission (GCEC) which is in charge of the industrial projects in the Industrial Promotion Zone (IPZ)/EPZ. However, as this is only at the very inception the facilities requested of the CISIR is only in the form of advice as to effluents that would be sent out from the particular industry proposed as well as possible treatments that could be performed in order to reduce the toxicity of the effluents. However, once the factories begin operations the personnel at the CISIR may not be adequate to man monitoring operations of all these industries. Presently the CISIR is working on the effluents in two paper factories in Sri Lanka. However, although the limited staff available study the effluents and recommend methods of treatment, the recovering plant for treatment of alkali effluent has not been functioning for several years.

The UNESCO Man and the Biosphere National Committee of Sri Lanka, administered by the National Science Council presently is coordinating the environmental impact of the Mahaweli Development Project in Sri Lanka. It has commissioned several scientists in the relevant

fields for monitoring the changes in the biotic environment, physical environment, climate and hydrology and socio-economic environment. With much difficulty young graduates were recruited to carry out the aforesaid monitoring exercise. These groups are managing the data pertaining to the environmental state in their respective areas of study, which will help in advising the Government if serious consequences are close at hand.

We need to gather much more data by environmental monitoring at the local level. Careful correlation of the various parameters with biological effects and with presence of particular biological species as indicated would also help to organize low cost surveys on the occurrence of these species in order to yield data on the quality of the environment.

The nature and strength of stimuli to environmental control
and co-ordination

(a) The importance of health and environment is accepted by all political parties, socio-political groups, and by any group of individuals who are in a position to influence others. This is because of the realization that a sound mind can exist only in a sound body. A proper environment is a sine-qua-non for health. In setting up establishments and organisations it is not always possible for a developing country to give priority to environment in the setting up of the work places for the implementation of the ideologies of the organisation or establishment. As an example there used to be and are a few instances where public markets, places of entertainment, eating houses etc. are adjacent or in close proximity to such health hazards as public toilets. At the time our city fathers (Municipal Councillors) created these health hazards there would have been nothing to stimulate thinking on environmental control and coordination.

(b) Sri Lanka can boast of a civilization of more than 25 centuries, and it has its culture to assist any government in power in matters of health and care of environment. European conquerors of Sri Lanka particularly the British have left behind evidence of their contribution to this country in several ways, but they relate chiefly to such things as religion, education, fortifications and communications, including such valuable assets as the Railways, Roads, Public Works and Harbours.

Although there are no ruins of health institutions such as hospitals one can be quite certain that right through its civilization the Sinhala Kings and foreign conquerors have contributed their due share to health and environment. In schools and universities questions of health and environment ^{have} not been treated as subjects in syllabuses or curricula until recently. However health authorities send their representatives to these educational institutions from time to time to educate people in villages in regard to the value of hygiene and general health.

The word 'environment' itself hardly occupied the place it now enjoys in schools or public life. Today it has assumed considerable importance. Though culturally much emphasis or value was not attached to problems of environment in the past today environment looms large in every sphere of public activity.

Western influence healthwise originated with the coming of western powers to the country but for centuries before the conquest by western powers Sri Lanka had a system of medicine which is referred to as 'Ayurveda'. This influenced the average person on matters of general health more than the western system. This influence continues to manifest itself even today. For example, certain trees and herbs are prescribed for planting in home gardens to repel snakes, while others are used to prevent the outbreak of certain diseases. Still others are used to alleviate the suffering caused during some diseases like chicken pox, measles etc. About 80% of the population of Sri Lanka seek indigenous treatment for common ailments, at least in the initial stages. The ayurvedic medical practitioner has better and more intimate contact with the people particularly in the rural areas. Apart from treatment, the services of these practitioners have not been optimally utilized for other purposes such as health education, family health and preventive health work.

- (c) There is potential to manage, coordinate, process and implement policies with regard to the environment although up to now there are no proper administrative arrangements for its management. Much of the legislation already enacted is confined to the statute book due to lack of administrative and supporting services for their effective enforcement. There is very little or no coordination with regard to programmes on the environment at national, district, and village levels. However, there is a growing interest with regard to the environment among government circles now. As such the Ministry of Local Government, Housing and Construction is associated with the United Nations Environment Programme (UNEP) and Sri Lanka Foundation Institute (SLFI) organized a seminar on 'Environmental Protection and Management' in August 1978, where it was decided to set up a centralized agency for the formulation of policies and implementation of programmes connected with adequate protection and efficient management of the environment.
- (d) There is favourable public opinion in this regard as several voluntary agencies have been active in the field of environment in Sri Lanka creating the required awareness among the people for the conservation of our water, soil, natural vegetation and animal life for posterity and for sustained and accelerated development. The government is in general agreement that there is an urgent need for public

participation in environmental decision making. Public opinion could be channelled through environmental impact procedures thus encouraging public involvement and fostering public education. The voluntary agencies have been assigned with the function of obtaining appropriate and accurate feed back on the desecration of the environment that is going on around us since they are in a better position to do so. Being environmental enthusiasts they have the necessary wherewithall to advise the government on new policy directions, worthwhile programmes, and areas of urgent action.

(e)&(f) Sri Lanka having a strong tradition of democracy and public participation in decision making processes pays attention to the voice of the people when they embark on sensational events of environmental or health damage. For instance in the recent past some of these voluntary organisations have taken a leading role in bringing to the notice of the authorities, certain serious consequences that may have arisen if certain projects were allowed to continue. The case of the Sinharaja Forest is a classic example of a success story due to the untiring efforts of voluntary organisations. In this case voluntary organisations brought it to the notice of the government, that government organizations like the Plywood Corporation had indiscriminately razed forest covers in excess of their regenerative capacity. The government took immediate action in this regard and stopped the logging industry in the Sinharaja Forest although it resulted in a serious shortage of timber.

Also in recent years there has been an upsurge of public concern over the indiscriminate blasting of the coral reef, increasing pollution of rivers, canals, lakes and coastal waters, vegetation and atmosphere and by uncontrolled urbanization. Alarmed by the gravity of this situation the Sri Lanka Environmental Society and other environmental groups set up a Citizens Task Force to examine the environmental situation, and report on the formulation and implementation of a national environmental policy. This report was submitted to His Excellency the President. His Excellency directed the Ministry of Plan Implementation to implement the major recommendations of the Task Force Report. It is to be noted also that the seminar on "Environmental Protection and Management" held last year was due to the personal initiative of the Hon. Prime Minister.

The nature and strength of forces resisting environmental control
and coordination

Hazardous states have been determined and monitored to some extent but the biggest problem lies in the implementation of remedial measures.

It is ^{an} obvious fact that the chief architect of pollution in Sri Lanka is the state sector - both public bodies and industrial corporations. Our cement factories are said to have electrostatic precipitators, but at Kankasanturai and Puttalam there is kiln dust in the atmosphere seen settling on the palmyrah palms and the roofs. Our caustic soda factory at Paranthan was to have a DDT factory connected with it but this offer was refused. The result was that all the chlorine went to poison the air at Paranthan. Even now about 15% of the chlorine is emitted into the environment. We are told that the chlorine that would be produced by expanding the factory 2-fold could be completely used in the paper factories - to this we may also add the sulphur-dioxide from the Petroleum refinery as well as from the automobile engines particularly those belonging to the Central Transport Board.

When it comes to pollution of water we find for example alkali and milk washings from the spray dried milk factory ending up as drinking water in the neighbouring village. Alkali and dyes from our huge textiles factories entering mainly untreated into streams in addition to particulate wastes from the paper factory actively destroying the aquatic fauna in Valachchenai. The National Milk Board, Marketing Department Cannery, concrete works, government undertaking of the Spinning and Weaving Mills, British Ceylon Corporation and Colombo Municipality sewers are the chief polluters of the canal system in Colombo.

The problem here is that various public departments disclaim any responsibilities towards clearing up the mess caused by them. Also those involved in initiating remedial action are faced with much opposition. For instance the Water Resources Board protested against the Bureau of Ceylon Standards when the Bureau tried to formulate minimum standards for industrial effluents.

With a view to laying down of standards or tolerance limits for the release of industrial effluents to Waterways, the Bureau of Ceylon Standards circulated draft standards to the relevant government factories for comment. However, this called for much criticism in that they were informed that the specifications of quality more stringent than necessary at this juncture would only result in considerable increased investment. The Ceylon Petroleum Corporation with its oil refinery at Sapugaskanda stated that they treat the effluent water which flows into the Kelani River but categorically stated that the proposed draft standard limits cannot now be met principally for certain specified characteristics of the effluent.

The Committee formed for the laying down of standards in the environment went into abeyance for some time due to the aforesaid reasons. However, on representations made at a meeting on the Development of Standards on Environment held at the Ministry of Plan Implementation, the Bureau decided to recommence work on this subject.

Hence with the establishment of the Environmental Authority - hopefully under the President - resisting forces of this nature would not be able to manifest themselves but will be given a reasonable hearing.

PART V

REPORTERS ASSESSMENT

The organization that exists in Sri Lanka today covers the entire needs as far as is necessary for any State to conceive, plan, or execute major State policies. This is due to the fact that the experience gained by successive governments in administering the country and the ample aid the country gets from developed nations have been made use of so far only theoretically. The subjects and functions of the various Ministries concerning Health and the Environment are most comprehensive. Legal Acts and Regulations cover the entire area of social justice. Practically all areas of environmental concern are also covered by legislation.

However, the two main causes of underdevelopment are :-

- 1) Lack of sufficient financial resources
- 2) Insufficiency of trained manpower.

To give an example, taking world standards, the numbers manning our services such as health, public works, police etc. fall far short of the norms prevailing in developed countries.

Our salvation seems to lie in the acceleration of production for export by means of industrial expansion.

Another drawback is political instability. In the past, the party system has created a pattern indicating a change of government at regular intervals. This has resulted in no government being able to fulfill its promises or achieve its objectives within the short period of 5 - 6 years. It may not be far wrong to say that most people now seem to be working for the party and not for the State - a most unhappy state of affairs, which reminds one of Macaulay's poem on Horatius where he extols the Roman Empire and says "There none was for the party; there all were for the State".

Some may even be of the view that the answer to the many problems including the lack of patriotism would be a change in the form of government such as totalitarian dictatorship. However, this idea

is anathema to the political aspirations of the people. Hence we have chosen to travel slow under social democracy rather than progress fast under any other form of government, which might mask disastrous consequences, and appear on the surface to be the panacea for the existing problems.
