MARGA INSTITUTE
(Sri Lanka Centre for Development Studies)

M 896 (General)
November 1986

SEM/53

SOME AREAS NOT COVERED
BY
INTERSECTORAL ACTION FOR HEALTH

Mr. R. Eardley Fernando
Consultant
Marga Institute

Held at
Marga Institute
27 November 1986

61, Isipathana Mawatha
Colombo 5
Sri Lanka

P.O. Box 601
Tel: 585186 & 581514
Cable: MARGA Colombo
Telex: 21642 MARCA CE
PREFACE

The health of a community is affected by all activities which have an impact on physical well-being. This paper deals with possible avenues for intersectoral co-operation which have hitherto received little or no attention. The paper has its focus on health problems and issues which have their origin in policies, programmes and activities of a few non-health sectors and examines possible intersectoral linkages which could reduce their adverse impacts on health. It also draws attention to some aspects of the development process which pose problems to health and suggests how their adverse impact could, partly at least, be arrested or mitigated through planned intersectoral effort.
1 - Impact of transportation on health

1.1 I have chosen to begin this paper with transport because transportation is common and fundamental to most fields of human endeavour and hence our lifetime dependency on it from birth to death.

1.2 Transportation is a life supporting as well as a life enhancing system sustaining and improving the quality of life. Yet in fulfilling these functions, it may also be a life and environment damaging system.

(i) **Accidents**

In 1964 deaths from road accidents were a mere 44 but in 1981 they had risen, by steady annual increases, to 1232, that is by 2700%, in 1964 the number injured in road accidents totalled 1589 but by 1981 they had risen to 2820 - an increase of 77%. Since then the situation has further deteriorated with the development of a chaotic traffic situation which is increasingly raining death and destruction. It is not a surprise therefore that, in the classification of mortality by cause, the Annual Bulletin of the Ministry of Health recorded that in 1984 deaths in hospitals alone as a result of injury and poisoning was 25.7 per 100,000 population, the next highest being through hypertension and heart disease at 21.1.

(1a) The principal causes of accidents have been:

- incompetent or reckless driving in defiance of the provisions of the Highway Code, even though the drivers responsible hold Certificates of Competence issued by the Registrar of Motor Vehicles;
- the increasing lawlessness which has invaded our roads so much so that even with no Certificates of Competence drivers take the wheel of public service vehicles carrying passengers;
- hazardous roads, absence of safe sidewalks forcing pedestrians on to the carriageway, poor highway engineering, unsatisfactory lighting, an almost complete absence of signposting, unsatisfactory traffic management measures to cope with congestion and snarls and similar inadequacies;
- driving under the influence of liquor;
- mechanically unsound vehicles
It is but seldom that the cause of an accident arises from a single cause; more often than not elements of more than one of the above causes are present in each accident situation.

(ii) Pollution and transportation

The Treaty of Rome (1976) stated that the constant improvement in living and working conditions, in other words the environment, should be an essential objective of the EEC. Unlike accidents it is exceedingly difficult to quantify the harm to health caused by transportation's share in polluting the environment for the latter embraces social, political, economic and emotive factors. The Director General of IATA has, however, given the following values in his qualification of pollution by pounds per 1000 seat miles.

Motor vehicles 50
Piston engine aircraft 22
Ocean going ships 20
Diesel trains 9
Jet aircraft 3

In this assessment he has not considered noise pollution though scores of people living in the vicinity of Heathrow and Gatwick airports have complained of deafness while dozens of others, especially young children are being treated for nervous disorders.

1.3 Intersectoral Action

Although several authorities are concerned with pollution and the causes of accidents, transport, highways, local bodies, health services, education, the UDA, the Police, the RMV, the environmental authority, certain concerned private bodies and the judiciary nothing in the nature of intersectoral action has hitherto been attempted to combat the threat to health and life. The fundamental error is that transport planning has been for vehicles. As B.T. Collins, Director of Planning and Transportation, Nottingham County Council, has emphasised that transport planning must be for the people. By tackling the above problems through planned programmes it will make it more difficult to make misjudgements and less possible to conceal misdemeanours and misadventures or to wrest a material advantage at the expense of future generations.
Care System and the Anti-Malaria Campaign are left to meet the additional burden. Fortunately, we now have a wide network of medical institutions and more potent drugs to supplement the work of the Anti-Malaria Campaign. Previous experience of jungle clearance should have provided ample evidence of what was likely to happen unless corrective intersectoral measures went hand in hand with project progress from the very initial stages, watching out for imbalances in the ecosystem, more especially after the policy decision to complete the project in 5 years, so leaving little time for imbalances to find new equilibria at each stage of the project.

2.3 Diarrhoeal Disease

The recent epidemic of diarrhoeal disease which claimed several lives made its presence felt initially in Matale District and spread quickly to adjacent districts and even as far as Chilaw so that the Department of Health Services took emergency measures to combat the disease. Polluted water was the immediate cause. This was due to the breakdown in the purification plant. In addition the toilet facilities in the District leave much to be desired. According to the 1981 Census of Housing and population, 18754 houses of 68,208 to i.e. 27.2% had no toilet facilities whatever. The situation has improved marginally but any such improvement has been counter-balanced by the increase in population during the last 5 years. Thus conditions exist to make diarrhoea a high health risk.

2.4 Intersectoral Action

The Mahaweli Development Project offers wide scope for intersectoral action for health under the initiative of the Mahaweli Authority. Sectors other than the Health Services, which could make valuable contributions are: The Departments of Agrarian Services, Agriculture, Agricultural Development and Research, Lands and Land Development, Land Settlement, Food and Co-operatives, Forestry and Water Resources, Education and a few others. The activities of these Departments impinge on health and joint efforts dedicated to improving the health status can show beneficial results.
2. Impact of Irrigation on Health

2.1 In irrigation projects, large and small, intersectoral planning and activity has seldom been undertaken in the initial stages to offset serious disturbances to the ecosystem involving parasitic and infectious disease cycles and long-term damage to health in project areas. Since 1980 the incidence of malaria in the Mahaweli project area has been rising at an alarming rate. To quote from the Ministry of Health's 1984 Bulletin:

"The resurgence of malaria was generalised throughout the Island but particularly affected Kurunegala, Matale, Anuradhapura and Hambantota Districts. The position was most acute in Anuradhapura where a large influx of settlers to System C at Kekirawa resulted in:

- erection of new (mostly temporary) structures for immigrants, posing additional burdens on spray items;
- poor acceptance of spraying (generally) at the Mahaweli Project Area;
- the entry of a highly susceptible population to these vulnerable areas without prior intimation;
- the creation of man-made sources for the breeding of the malaria vector by the construction of irrigation channels etc" i.e. irregular distribution through irrigation channels.

It should be noted that the Districts particularly referred to are scenes of irrigation projects.

2.2 The price in health terms

The Health Ministry's statistics disclose that positive blood smears which were 59.8 per 100,000 population in 1980 had risen to 173.9 in 1984 an increase of over 188% in just 5 years. The price has been appalling with hundreds of once healthy people – men, women and children finding themselves victims of this debilitating disease due to the absence of intersectoral commitment to its prevention right from the initial stages of the project - clearing. What is even more worrying is, to quote the same source:

"the resurgence of malaria was GENERALISED throughout the Island".

This introduces into the scenario a new element which goes beyond even the Great Malaria Epidemic of the mid nineteen thirties. This time the cause cannot be entirely related to the drought cycle. Thus the Health
iii. workers engaged in saw milling, flour milling, chillie grinding and paddy hulling have been found to be highly susceptible to respiratory disorders;

iv. tobacco workers have been found to be similarly susceptible as also workers engaged in tea processing;

v. tannery affluents have led to high concentrations of chromium in "keera";

vi. vinyl chloride used in the plastic industry, if passed into food through wrappings or into drink through piping, is known to cause cancer;

vii. particles of asbestos can result in fibrosis of the lungs (i.e. asbestosis), lung cancer and respiratory ailments even where there has been no specific occupational exposure;

viii. up to 30% of the chlorine produced by Paran than Chemical Industries and a similar percentage of sulphur dioxide emissions at the Sapugaskanda Refinery cause or aggravate respiratory problems.

3.4 Examples from the Investment Promotion Zone (IPZ)

Among the pollutive media in the IPZ a few have already caused health problems. Doubtless more will surface in the future for steps to combat pollution are minimal and effects manifest themselves more in the long term than the short. Nevertheless some serious health problems have already been caused by:

i. high concentration levels of acetic acid and hydrochloric acid as well as of Ammonia fumes in the rubber thread industry;

ii. dermatitis has been prominent in the cashew production plant;

iii. injury suffered by workers has been a regular feature.

3.5 Intersectoral action

This is surely a field for intersectoral intervention through constant surveillance of the working environment and surrounding areas through continuous monitoring industry by industry, as location can also cause variations. Several sectors such as Health Services, the GCEC, the Environment Authority, the CISIR, the Department of Labour as well as
3 - Impact of Industry on Health

3.1 In Sri Lanka, both established industries, eg. cement, as well as new industries of recent origin, have posed health hazards on a significant scale. Part of the danger to health has been the result of policies for attracting foreign enterprise with minimum, if at all, controls either in respect of worker protection or environment protection and the importation of technologies in advance of the technical know-how and the scientific and industrial infrastructure of the Island and its ability to neutralise or otherwise render harmless pollutive waste and industrial affluents dumped indiscriminately into waterways and even agricultural land, with scant regard for life and property of the community.

3.2 Experience has established that once industrial pollution commences, it is extremely difficulty to control as its ill-effects are manifested less in the short term than after a period of years. It may be compared to leprosy which incubates for about 10 years. This is why persistent intersectoral efforts are necessary from the initial stage of approving the setting up of the industry onwards. Industries without the infrastructural facilities for treating industrial waste to render it harmless and its safe disposal subsequently, should not be approved. The recent tragedies at Bhopal, Chernobyl and at the sandos plant in Switzerland should serve as ample warning. Yet determined intersectoral supervision, surveillance and monitoring of industrial activity in Sri Lanka has yet to be established in Sri Lanka. All too often the outcome is left to the Health Services to contend with, only after it has surfaced. Reference will only be made to selected examples of health hazards due to industrial pollution which have been left largely untouched by intersectoral action.

3.3 Examples of Industrial Pollution from long established industries

Among the above may be cited the following:

i. tuberculosis has been 8 times higher among cement workers than the rest of the population; they also exhibit a tendency to develop dermatitis;

ii. tuberculosis has been found to be 5 times higher among graphite workers than the rest of the population; they are also prone to pneumoconiosis;
workers and the public, are some of those who should participate in working out action programmes.

4 - Impact of Agriculture on Health

4.1 Only a few aspects of the hazards to health resulting from agricultural practices which have yet to be combatted intersectorally, or, where interventions have been directed only on the fringe of activity, are touched on.

4.2 Agrochemicals

The increasing use of artificial fertilizers and a variety of agrochemicals as pesticides and weedicides poses health hazards to both farmer and consumer. Among the direct consequences are:

i. without effective management and husbandry, soil acidity increases and, in the long run, soil productivity is reduced;

ii. in Sri Lanka many have died and many more have had their health seriously impaired in the very act of spraying due to lack of knowledge of the art of spraying; even the TV portrays spraying operations without the protective use of masks.

iii. absence of safe storage of dangerous agrochemicals in farmer houses have caused hundreds to become mildly or even seriously ill, failing to realise that they have been poisoned; seventy five percent of them are children;

iv. many die of swallowing poisonous agrochemicals or merely by coming into frequent contact with them.

Though not conclusively proved, from the evidence emerging from other countries it is possible that ill-effects have been caused in the long term by the presence of absorbed chemicals in grains, vegetables and other food crops; some varieties of leukaemia have been attributed to agrochemical absorption.

4.3 Food contamination

Food contamination, which carry with it health risks, occur during harvesting, storage, processing, packaging and right down the delivery chain from transporting to wholesaling and retailing; in addition, health
has to contend with food adulteration which, in Sri Lanka, sometimes originates with processing and thereafter in degrees right down the delivery chain with ever increasing health risks.

4.4 Fisheries

Our fishing industry carries with it the risk of loss of fishermen's lives; in the final stage of consumption serious ill-effects result from the callous use of formalin as a preservative.

4.5 Intersectoral Action

These are all areas for intersectoral interventions by the combined efforts of various sector groupings. Several agencies are involved in one or more areas of agricultural activity directly or indirectly. Among them would be the Health Services, Departments of Agriculture, Forestry, Fisheries, the Food Department, Education, the CISIR, the Bureau of Ceylon Standards, the media, the law enforcement authorities and as often deaths have resulted from adulteration which relates to manslaughter, the Judiciary.

5 - Impact of Education on Health

5.1 The level of education of females, particularly of mothers, is a decisive factor in raising the family health status. In Sri Lanka female literacy was rated at 82.4% at the 1981 Census of Housing and Population. The rate is easily the highest in our part of the world. In the last fifty years, that is after the introduction of free education, the rise in the percentage of female participation in education has been dramatic; the increasing impact of education on health is reflected in the decline in infant and maternal mortality, the crude death rate and the increase in the average life span. Despite this satisfactory outcome, several areas still exist which need the collaboration of other sectors in an intersectoral effort with the Department of Education to raise percentage literacy further. Listed below are a few of these:

5.2 Areas for intersectoral action

It is suggested that -
i. the Departments of Education, Health and Buildings should combine to make school buildings, their maintenance as well as school compounds models for health so as to serve as examples to the wider community of parents and the rest of the local population;

ii. A further step would be to develop the school as a focal point for community health through collaborative health and education programmes for making the school a centre providing health care to the young and educating them for a healthy living;

iii. a unique opportunity exists to train school teachers to influence health behaviour, to monitor pupils’ health in the classroom, to recognise common diseases and to deal with them and to detect physical disabilities and mental disturbances and alert parents as well as advise them;

iv. schooling provides an opportunity to teach the student population to cope with health risks in their vulnerable adult years;

v. teaching professionals must be provided an understanding of the interaction of different sectors in raising health levels so that they will possess the ability to guide and promote interdisciplinary knowledge of health;

vi. schools and institutions of higher learning must also provide leadership and whole-hearted participation in health related programmes, eg. immunisation, food production etc., which require motivation of the public.

These are some areas for intersectoral collaboration, principally between health and education, but they touch a number of other sectors as well.

5.3 School attendance

There however remains the question of non-participation in the school system. Admittedly the proportion in this class is small but they are nevertheless important, especially the females among them, as they will also contribute to shaping the future pattern of health.

5.4 Any of several reasons may affect a child’s ability to attend school or compel the child to drop out early. Among them are -
i. the cost factor; although education is free it is costly in terms of school uniforms, school equipment and travel; children, especially those of larger families in lower income groups are the most affected;

ii. the Department of Education recognises that certain districts are relatively "deprived" in the quality and content of education imparted in sub districts due to financial constraints, lack of experienced teachers and so on; in these districts the worst deprived are village schools; better schools are often not accessible on grounds of distance and cost. It would be difficult to persuade children to attend the village school, especially if the mother has been more fortunate in her schooling. Forty percent schools have classes only up to Grade 5.

This is hence an area for investigation and special intersectoral action by concerned authorities including the Department of Education, Social Services, Rural Department and even voluntary organisations and NGOs.

6 - Impact of Tourism on Health

6.1 Tourism has also been partly responsible for undermining health by increasing -

i. drug addictions as evidenced by increased detections of both tourists and locals; in one little known tourist resort, Unawatuna the only UNA to have made an impact is heroin addiction;

ii. prostitution (both male and female) and in fact tour promotion journals are known to have portrayed Sri Lanka as a sort of promiscuous Garden of Eden;

iii. venereal disease phenomenally, as disclosed by the Health Ministry's statistics on special campaigns - infectious syphilis having increased from 187 cases in 1982 to 639 cases in 1984, that is by 242% in 3 years, and though the source of infection is confidential, it is not difficult to conclude that, as in many Third World Countries, tourism is partly responsible; in fact it was only on the 8th of this month that it was announced that
the first official instance of AIDS in Sri Lanka related to a touring British national; in fact it was found that he had visited Sri Lanka in January of this year too.

Our own nationals have in the last few years acquired an international reputation for drug running and many are languishing in foreign gaols.

6.2 Intersectoral Action

These areas require a multidisciplinary thrust if they are to be brought under control. Among the authorities involved in such action would be the Health Services and the Port Health Authority, the Customs Department, Law Enforcement agencies, the Education Department and the Tourist Industry including the Tourist Board.

7 - The impact of Multinational Pharmaceutical Organisation on Health

7.1 The 1984 Health Ministry Bulletin states, "Since 1977 with the liberalisation of trade, the private sector was permitted to import drugs for distribution in the private sector and the SPC lost its monopoly of supply of drugs to the private sector". Thus the gate was opened for -

i. import of drugs by trade name and not under their much cheaper generic name;

ii. the chronic shortage of drugs in the State Sector due to leakage of 30% - 40%;

iii. dumping dangerous drugs banned in many advanced countries;

iv. dumping of perfectly unnecessary drugs.

The responsibility of the SPC is presently only to State institutions. With the result the real beneficiaries are these pharmaceutical companies and those in their pockets and not patients who have to pay more for their drugs which may be of doubtful quality or even harmful to health. Owing to the shortage of drugs, due to pilferage, patients at State institutions have often also to purchase such drugs from the private sector.
7.2 Another aspect of the problems posed by the operations of multinationals are their powerful lobbies. As pointed out by Gopal, their methods include promotion through health professionals, provision of research grants, travel funds and other diverse benefits to influential paediatricians, nutritionists and physicians. Nestles which claimed to support fully the Code of Marketing Breastmilk Substitutes at the WHO assembly in 1981, is an example of a multinational which nevertheless conducts business against the spirit of the Code. In the last few years Nestles has so entrenched itself in Sri Lanka as to engulf the entire commercial multi-production business of the Island.

7.3 Here is an illustration of the need for multisectoral effort to reduce the promotion of multi-substitutes using the mass media which Nestles use so effectively in sales promotion. The high cost of formula feeding and the superiority of breastmilk, now widely recognised, needs to be appreciated by politicians, economists, the Ministry of Health, the Ministry of Finance and, above all, mothers.

7.4 This is the true life situation confronting the Ministry of Health. Yet very little has been done to combat the multinational menace in the field of health; possibly it may be dangerous to do so.

7.5 Whatever the reason there is scope for both sectoral and determined intersectoral effort to improve the situation:

i. sectorally, by the Health Ministry

   (a) mitigating legislation to ban the import of dangerous drugs;

   (b) using the media to give wide publicity to the harmful effects of such drugs.

ii. intersectorally, by enrolling the Customs, the law enforcement authorities and other concerned agencies to ensure the situation is kept under rigid control. Penalties must be commensurate with the offences - undermining the health of the nation.

7.6 In addition, reverting to import of drugs by generic name will result in drugs being much cheaper. To give two examples of common drugs - Velium and ventolin are each over one rupee a pill but under their generic names of diasium and salbulynol they cost 5 cents a pill respectively. We are thus paying ridiculously more for the trade name and the tin foil packing.