

# The Brain Drain

*With special reference to Engineers*

by B. M. A. Balasooriya

*By the Sri Lankan brain-drain to the rich countries, this article reveals, Sri Lanka is aiding the rich by Rs. 110 million per year whilst incurring an additional loss to our economy of Rs. 128 million per year. B.M.A. Balasooriya is a research engineer working in the State Engineering Corporation and Editor of the Quarterly Journal of the Institute of Engineers.*

The problem of brain-drain has been discussed, debated and documented in various places at various times. However, in most instances it has been looked at from the point of view of the professionals who form the elite of this country constituting probably under 1% of the total population. Most professionals talk about the higher wages they can earn abroad, the material comforts they can enjoy abroad, education of their children and so on. It is quite clear that most views expressed at various times and pressed on the Cabinet Committee that reported on the Brain Drain in Sri Lanka through the Institutions and Trade Unions that represent these elite groups, are for their own personal interests and not with much sense of responsibility towards the other 99% of the less fortunate people of this country who have nowhere else to go but do or die here. The professionals are more inclined to identify and compare themselves with their counterparts in the developed world together with whom they constitute an International Elite Group, and alienate themselves from the people in their own country.

The writer attempts here to discuss the problem of the so called brain-drain, with special reference to the extent to which it applies to the engineering profession.

here are designed on patterns similar to those in the developed countries, and are recognised internationally.

- Consumption patterns that some are accustomed to or those that others aspire to, mostly match the developed country pattern.

The reasons for migration of the professionals should be viewed in the light of the common characteristics mentioned above.

### Reasons for migration

Various investigations have attributed several reasons for the migration of professionals from the developing countries to the developed countries or developed pockets in other developing countries. Several reasons have also been listed in the Sri Lanka Cabinet Committee Report in their investigation of the problem in the context of Sri Lanka. These reasons could be considered as constituting two types of forces, namely Push and Pull forces, the former being those which push one out of Sri Lanka and the latter, those which pull one towards the developed regions abroad.

### Pull Forces

'Attention of higher salaries abroad and the ability to make

### Characteristics of the "Drainees"

If one carefully analyses the characteristics of those that make up the 'Brain Drain', one can see several common factors.

- In the first place, almost all of them fall within the high income levels in relation to the average incomes in Sri Lanka.
- A very large majority of them have gone through the tertiary level of education, which is provided by free the state.
- They enjoy the privilege of mobility because the type of education and qualifications which they received

TRAINED PERSONNEL WHO LEFT FOR EMPLOYMENT ABROAD

Category	May 1971 to April 1972	May 1972 to April 1973	May 1973 to April 1974	May and June 1974	Total
Doctors .. .. .	108	171	238	41	558
Engineers .. .. .	54	113	94	14	275
Accountants .. .. .	23	41	88	11	163
University Teachers.. .. .	—	15	24	2	41
Other Teachers .. .. .	82	55	52	4	193
Lawyers .. .. .	8	35	13	2	58
Technicians .. .. .	—	20	27	15	62
Nurses .. .. .	14	11	1	2	28
Others .. .. .	90	142	83	12	327
	379	603	621	102	1,705

substantial savings to meet a variety of personal needs both while they are abroad and on their return home.'

This is the most important and common reason as stated in the Cabinet Committee Report, and it is out of economic necessities. The international mobility gives them access to 'world market' values. This has a catalytic effect on the migration of the professionals.

Education of Children — the higher standard of education available in the developed countries and the relative ease and the less stringent standards of entry requirements, specially at British Universities. Average or even a below average student who may not stand a chance of admission to our University in the fierce competition for entry, has a good chance to go through a University at e.g. in U.K. or U.S.

#### Push Forces

Education of children could be grouped under push forces as well and this is probably the second important factor, as evidenced from what the writer has gathered from his own colleagues who have emigrated. The common apprehensions are:

- (a) the difficulty in admitting a child into a 'good' school, and the high degree of competition for admission to the University.
- (b) the belief that the chances of doing well in life with swabasha education is slim and that no foreign countries will recognise our swabasha degrees.

•The latter arises through the intense desire to gain access to "World Market" values and achieve international mobility. It appears that to some, the concept of doing well in life is based on the achievement of these values.

Difficulty in adopting themselves to the changing social situation in Sri Lanka — this is also a contributory cause in some instances.

As a result of recent legislation like land reforms, ceiling on income etc. some have found that it is impossible to live up to those same standards, comforts and luxuries that they have been used to in the past. They probably consider it a loss of face to step down from the high pedestals in the eyes of the lesser beings in our own society. Yet, in a foreign country they are quite willing to adopt themselves to standards of living, may be even below those standards that they could have lived in the changed situation in Sri Lanka, and that too as second class or even lower citizens in their country of residence.

Irritations arising from personnel problems, discrimination, harassment, lethargic and negative attitude taken by the administration in respect of the needs, the problems and aspirations of the professionals. However, one should also not forget the fact there is worse discrimination abroad, not only in finding employment, but also in such other matters as finding a house to live in. Such discrimination is sometimes basically on the colour of our skin. Yet, some people take relief in the thought that it is better to be discriminated against in a foreign country by foreign people than by one's own people at home.

Another common reason is the spirit of adventure specially among the younger people — to see the world while they are young. This is quite a natural instinct.

It can also be said quite unhesitatingly that the following are *not* the reasons (except in exceptional instances) for the migration of engineers:

'Low status of professionals in the administrative system and in the society' —

Engineers on the other hand have enjoyed a privileged position in our society. However, it is true that the engineers and technical personnel in general were kept relatively lower down in the administrative system. Yet in the writer's opinion, status has not

been a consideration for any engineer to emigrate.

'Lack of opportunity for the development of professional competence and professional advancement' — For any engineer who has the initiative and the urge, opportunities are available in Sri Lanka, for professional advancement and development. This has in the writer's opinion not been a reason for migration.

'Job satisfaction and limited participation or non-participation of professionals in the decision making process' Here again this has not been a cause for migration except in exceptional instances. For that matter a survey has revealed that generally the professionals migrating to developed countries from developing countries, fit into slots lower down in the professional ranks compared to what they were occupying or could occupy in their own countries. The writer has learnt this from some of his own colleagues who have migrated; most of them admit that the level of responsibility that they shoulder abroad is much lower than what they were given here at home. Consequently, if as engineers we are some distance away from the decision making process in Sri Lanka, we would be much further away in any other country.

There are also other reasons listed in the Cabinet Committee Report such as 'absence of adequate promotional prospects, lack of equipment and other institutionalized support, organisational inefficiency and better opportunities abroad to come into contact with intellectual centres. etc.' Although some of them may be valid they have not been significant causes for the decision to migrate among engineers.

It is true that in Sri Lanka, literature, equipment and financial provisions for research are lacking. In this context it may be noted that the University of Sri Lanka had stopped subscribing for most foreign

journals during the period 1972-75. These may be some of the reasons for migration of engineering from our Universities. As far as the universities are concerned there appear to be several other reasons such as the general state of disorganisation, relatively low salaries and disgust and frustration arising from discrimination and maladministration.

It should be interesting to quantify in financial terms, the loss to Sri Lanka by the emigration of our professionals to compare it with the total inflow of technical aid to Sri Lanka through the various agencies. Main sources of technical aid received by Sri Lanka are the U.N. Agencies and the C-Plan; the quantum from other sources being not more than about 10 per cent of the total (Source: Planning Ministry)

On the basis of an average productivity of about Rs. 400,000 per professional, per year (estimated by Nath Amarakoon), the loss to Sri Lanka could be of the order of Rs. 128 million per year. Therefore, it is clearly seen that the loss incurred far outweighs the total inflow of technical aid which amounts to only about Rs. 88 million per year.

It should also be interesting to quantify the extent of *technical aid given by Sri Lanka to the developed countries*, in the form of the professionals who migrate to them. For the purpose of this exercise the numbers of engineers, doctors and accountants who have migrated to U.K., U.S.A. Canada, Australia and New Zealand during the 38 month period of the study referred to above was 706. Since in the developed countries a very high degree of sophistication and automation is prevalent, the productivity per professional would be much higher in comparison to that in a developing country like Sri Lanka. Taking a conservative figure for the productivity of say Rs. 500,000 per professional per year, the total technical aid input to the developed countries from Sri Lanka would be of the order of Rs. 110 million per year, which is far more than the total quantum of technical aid received by Sri Lanka which is about Rs. 88 million per year.

#### Beneficial effects of "Brain-drain" among engineers

Migration of engineers is in a way a blessing in disguise because it acts as a safety valve on rising unemployment or under employment of engineers in Sri Lanka. The statistical data given in the Cabinet Committee Report reveals that the largest proportion of those who migrated was in the age group 25 to 29, i.e. those with not more than 6 - 7 years experience after obtaining their degree; and about 60 to 70 percent were those under 35 years of age. These people could be replaced without much difficulty from among the new graduates in stages.

A positive effect of the brain drain is the potential to develop links between our local organisations and

### RATE OF GROSS OUTFLOW OF TRAINED PERSONNEL

Category	Average rate per month		
	May 1971 to April 1972	May 1972 to April 1973	May 1973 to April 1974
Doctors .. .. .	9.0	14.2	20.0
Engineers .. .. .	4.5	9.0	7.8
Accountants .. .. .	2.0	3.4	7.3
University Teachers .. .. .	—	1.2	2.0
Other Teachers .. .. .	7.0	4.6	4.3
Lawyers .. .. .	0.7	3.0	1.0
Technicians .. .. .	—	1.6	2.3
Nurses .. .. .	1.2	1.0	—
Others .. .. .	7.5	12.0	7.0
Total .. .. .	33.0	50.0	51.7

### Happiness

One cannot say that people migrate because they could live a happier life abroad. Most engineers who the writer has met, back in Sri Lanka for short holidays, have said that they would be happier here. They have no roots in the country of adoption; they have no sense of belonging to that country; it is a superficial existence but of course with material comforts and more money in the pocket. It appears that the latter reasons outweigh the other considerations.

### Magnitude of the problem

The report of the Cabinet Committee (Sessional Paper X - 1974) revealed that during the 38 month period from May 1971 to June 1974 the total number of trained personnel who left Sri Lanka was as much as 1700, the number of engineers being 275. This works out to, on an average, almost two engineers every week. This is no doubt an alarming figure.

#### (a) Colombo Plan Aid

The average annual total aid input to Sri Lanka, which includes equipment received, training and student places made available abroad, foreign experts serving in Sri Lanka and other is about Rs. 14 million.

#### (b) Aid through the United Nations Agencies

The corresponding figure is estimated at about Rs. 65 million assuming that about 10% of (a) & (b) above to be from others, the total annual technical aid input from all sources in about Rs. 88 million.

The loss to Sri Lanka by the emigration of the professionals may be estimated in terms of the consequent loss in productivity. Considering the number of only the engineers, doctors and accountants who have migrated during the 38 month period studied by the Cabinet Committee, the average number emigrating is about 320 per year.

similar organisations abroad where our professional personnel are working, with a view to co-operation in research and the use of services such as documentation and information.

It has been argued by many that experience gained abroad is comparatively richer and would be a great advantage on return to one's own country. While agreeing that such experience may be different from that at home, and useful it is not necessarily more rich. Perhaps it broadens one's experience, but certainly it does not make one a better engineer than one who has chosen to carry on working at home. The writer has seen sufficient evidence for this conclusion to be made in his own place of work.

#### Cabinet Committee recommendations

The Cabinet Committee has obviously considered the problem from all possible view points. They have considered both the human aspect i.e. the attitudes and aspirations of the professionals, and the national aspect, i.e. the need of the professionals in the development of the country. The recommendations made are very liberal and they are being gradually implemented. However, the writer is of the opinion that on the whole it would result in a worsening of the situation as regards the brain-drain, from a national view point.

It is presumably hoped that by facilitating the flow outward as well as inward, the net outward flow would decrease from what it has been during the past few years. But is this possible in the context of the reasons for migration enumerated earlier.

Obviously Sri Lanka cannot match the salary levels and living standards of developed countries. Secondly, we cannot hope to reach the levels of the institutions in the developed countries as regards facilities for study and research due to the fact that we are in a much lower stage of development. In respect of the education system in Sri Lanka, it is through necessity that it is being reorganised to suit the needs of a developing country such as ours from what has been a system transplanted here from Britain, which was designed to suit their needs then. It is natural that it would take some time for a new system to stabilise itself. Therefore, the 'pull' forces remain as they were.

Similarly, as regards the 'push' factors, there is nothing that the Government could do to change the existing situation because they are resulting from Government policy accepted by the people in the larger interests of the country and of her people. But have any steps been taken to remove the irritations described in an earlier Section i.e. discrimination, harassment and maladministration? It is very necessary for the administration to take a positive attitude when dealing with problems of professionals and avoid causing such irritations.

However, the Cabinet Committee has also made certain valuable recommendations which could 'pull' back some of our professionals working abroad. One of the very important recommendations made in this regard is to open avenues for recruitment or re-recruitment of personnel at senior and intermediate levels in the state service. In fact, this facility is already available in the Corporation sector and it is

hoped that it will be extended soon to the Government Service too. There are quite a number of those who migrate with the main purpose of earning a little more money and to acquire various domestic gadgets, a car and so on, which make life that much more comfortable. Some of them wish to return to Sri Lanka when they feel that they have fulfilled their mission.

#### Recruiting returnees

Therefore, a facility whereby they could be recruited at levels in keeping with their qualifications and experience is very necessary. Furthermore in making such recruitments it is essential that the administration should not be bound by a rigid cadre, if his or her services are useful to the organisation concerned. After all a cadre should have that flexibility to adjust itself to the changing needs of an organisation. At the same time, it is necessary to establish a secretariat here to which any of our professionals abroad in any field could apply for seeking employment. It should be the responsibility of this Secretariat to process his or her application *speedily* in consultation with the other government agencies where his or her services would be most useful and to offer him or her a place. At present since this service is not existent, there have been instances where such inquiries made to various agencies have not even been acknowledged, even after many reminders, which no doubt put off the prospective 'returnee' and make him change his mind. Another recommendation that can act as a 'pulling' force is the facility of convertible Rupee Accounts for earnings abroad.

Apart from what the Government can do to retain professionals within our country, the professionals should also have a sense of responsibility to fulfil their obligations by the peoples of this country. The writer feels that it has come to a stage where the professionals are attempting to hold the government to ransom by making various demands some of which are unjustifiable. For example, a university don has recently suggested that the

#### STOCK OF GRADUATE-LEVEL PROFESSIONAL AND TECHNICAL PERSONNEL AND PROPORTION EMIGRATING

Category	Stock in 1971	Outflow-May 1971 to June 1974	Per cent of 1971 stock
Medical Personnel .. .. .	3,294	558	16.9
Engineering personnel .. . .	1,983	275	13.8
Accountants .. .. .	614	163	26.5
All categories .. .. .	21,297	1,500	7.0

TRAINED PERSONNEL WHO LEFT — BY COUNTRY OF DESTINATION, MAY 1971 TO JUNE 1974

Category	U.K.	U.S.A.	Canada	Australia and New Zealand	Malaysia	Zambia	Nigeria	Other Countries	Total
Doctors	70	95	6	128	11	12	7	29	558
Engineers	100	8	19	34	28	36	24	26	275
Accountants	23	4	4	15	6	76	16	25	169
University Teachers	7	6	3	7	6	3	5	4	41
Other Teachers	34	40	5	14	2	64	17	17	193
Lawyers	26	2	4	3	—	3	—	20	58

children of professional parents should be given preference, in admission to the so called 'good schools', because otherwise they will have no choice but to proceed abroad with their children, as they have a ready market for their skills.

It is possible that some of the recommendations of the Cabinet Committee which appear rather unwarranted may have been made through pressure from the professional groups. For instance, the proposed facility of 5 years leave for employment abroad, is in the writer's opinion unjustifiable. This period is far too long and the writer feels that about 2 years should be the maximum period that may be given for this purpose. If one wishes to be away for a longer period of employment one should rather resign. However, he or she should have the facility of being re-recruited at an intermediate or senior level on return, depending on the needs of the same organisation or any other relevant organisation.

Another instance is that in the case of those who are sent abroad for higher studies and/or training on scholarships or grants, a facility is recommended whereby they could relieve themselves of the whole period of obligatory services by payment of the bonded sum of money. It has to be realised that such scholarships or grants are given for training of personnel to meet the manpower needs of a particular organisation; they are not gifts given to any particular individual; at least they should not be so. Therefore at least 50% of of the total period of obligatory service should be insisted upon,

after completion of which they could pay up on a pro-rata basis and be relieved of the bond. There have been instances where certain individuals who earned this opportunity for training/study abroad purely because a particular organisation needed such trained personnel, did not even return to Sri Lanka at the end of the period of study-training. This is the limit of selfishness. Of course, at the same time there is the obligation on the part of the administration to use such trained personnel in the most efficient manner. Again, there have been instances where the officer returning after specialised training found his place usurped by others who may be less qualified and less experienced, but having the right political or other connections to the right place. If the Government would not take steps to prevent the recurrence of such actions, in fairness to the scholar, the writer would not insist on the 50% minimum period of obligatory service.

The situation as regards engineers

At present there are more engineers produced than can be absorbed within Sri Lanka, so that there is considerable unemployment and under-employment among engineering graduates. Unless there is greater investment and activity in development work and greater participation of our engineers in such work, this situation will not be changed. Therefore, in this context we need not be unduly alarmed about the migration of engineers.

However, the loss of experienced engineers at intermediate and senior levels is causing serious problems in many of our engineering organisations, specially so in the writer's own place of work.

Conclusions

There is a general lack of a sense of owing a service to the mother country for all that one has obtained from the state in climbing up to the very position one is as a professional. In the final analysis this is basically the reason for the exodus of professionals. Could it be due to some essential element lacking in the process of education of a child and or the absence of true and honest national leadership who should set the right sense of values for the rest of the country to follow and derive an inspiration from? This provides some food for thought.

Unlimited freedom in migration of professionals is not in the best interests of the country. A certain degree of governmental control should be effected nationally and internationally when there is necessary justification for it. At the same time, it is essential that those who exercise such controls do so with a positive attitude.

While it is true that migration of trained and professional persons is a great loss in terms of human resources, in the context of the existing supply and demand situation in Sri Lanka, one need not be unduly alarmed about the out flow of engineers.

\* The 4 tables included in this article are from the Sri Lanka Cabinet Committee Report on the "Brain Drain". This data was gathered from only the official records available with the Department of Immigration and Emigration during the 38 month period surveyed.