

“The Science of Underdevelopment” in Sri Lanka (an updated review)

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The 54th Annual Sessions of the Sri Lanka Association for the Advancement of Science (SLAAS) was held from 14th to 19th December '98. Shortly before that, the newspapers carried reports of a press conference held by this year's General President of the Association, Prof. A. D. V. de S. Indraratne, giving information about the invitees, and proposed events; chiefly the concept of Globalisation with regard the trade, investment, migration, environment, information technology, poverty and inequality.

Among the other events that appeared in the programme gave greater details as follows:—

(1) 14 December ceremonial opening, commencing with a ceremonial procession and ending with refreshments. The highlights being an address by guest of honour Hon. Batty Weerakoon; inaugural address by G. P. S. de Silva; Presidential address on Globalisation and South Asia; Retrospect and prospect by Prof. Indraratne; address by Chief Guest Sir Alan Walters, Economic Advisor to the former British Prime Minister, Margaret Thatcher.

(2) 15th and 16th December. International Symposium on “Globalisation and South Asia: Retrospect and Prospect”. Inaugural address by A. S. Jayawardene, Governor Central Bank; keynote address by John Williamson. This was followed by eight sessions each of 11/2 hours duration, on topics relating to this subject. According to the programme the symposium was to conclude with a “panel discussion: Economic and Social Fallout of Globalisation on South Asia”.

(3) 17th and 18th December Addresses of one hour each by the seven Sectional Presidents of the SLAAS for the year 1998. The sections being

- a) Medical, Dental and Veterinary Science
- b) Agricultural Science, Fisheries and Forestry
- c) Engineering, Architecture and Surveying
- d) Life and Earth Science
- e) 1. Physical Science
- f) 2. Chemical Science
- g) Social Science

(4) A technical session where research done by the members of the SLAAS are presented; this will be either (a) by lectures each lasting 15th minutes, or (b) at a “Poster Session” during a period of two hours from 11.00 a.m. to 1.00 p.m. on the 18th December 1998.

Listed under (a) above there are 447 items; and under (b) 37 presentations! Abstracts of

Senaratne one season for my attendance at this lecture, was the fact that I had on the 29th October '98 presented a paper titled “Impact of the sea on Sri Lanka's shape, form and sustainability of resources”, before a special panel of the SLAAS General Research Committee (G.R.C.) chaired by the General President, Prof. Indraratne. The second reason was that I had presented a paper referred to as (D) 60 above.

I wonder whether Prof. Senaratne visited the Poster Section at anytime during the two hours fixed for display on the 18th as already stated. If he did, he would surely have been interested not only in the 8 posters grouped under section B of which he is the President, but also in several others, including the one marked D 60; “Having listened to his lecture the previous afternoon, I was looking forward to discuss certain issues which are of common concern, interest, but of a controversial nature. Be that as it may; Prof. Indraratne did come in to this section during this period, but only made a short statement and vanished. The least he could have done was to spend a little time at each of the Poster Exhibits to demonstrate his interest in the contributions made by the members of this Association, particularly in the field of scientific research, which is the prime object of this association. The question now arises as to what purpose Annual Sessions” of this type serve the members in particular and the country in general?

Addresses by SLAAS Presidents

Beginning from 19th December 1998 and continued for four more days, the Island newspaper carried a copy of Prof. Indraratne's address titled globalisation, and South Asia: Retrospect and Project.

I am no economist, nevertheless my knowledge of the physical sciences, as well as several decades of professional experience enables me to draw a clear distinction between the former and the latter. In fact after reading the conclusion Prof. Indraratne has given, and even more his frank opinion on economists, as given by him in the last para is worth recording. I quote “Economists are usually accused of committing three sins: (i) inability to agree among themselves; (ii) stating the obvious and (iii) giving bad advice. The first sin may be committed in the next two days in the course of our International Seminar where several economists will be participating. I may have committed the second sin by stating the obvious to you this afternoon. Nevertheless, I believe I have not committed the third sin by giving any bad advice in the course of my address.

There is evidence that not only economists but scientists as well, including engineers, doctors of medicine etc. who have held positions as



In the picture are some of the ‘shots’, maps publications etc., displayed by the author in support of the presentation he made on 18-12-98 at the SLAAS 54th Annual Session.

of an excellent action plan. One which not only dealt with the needs of agriculture, industry, the training of personnel, science education, technical education, research and development, but which also made provision for the development co-ordination and application of research calling for the setting up of a National Research Council.

And as Prof. Weerakoon has rightly stated “we launched our country and association on the struggle to achieve a satisfactory standard of living for all. Much the same thing happened in most of the colonial world — any differences being differences of timing in cases of de-colonisation. Our government and our scientists and our people strove hard to develop our countries”.

From the experience I have had in the Irrigation Dept. during that period and in particular on the Gal Oya head works from 1950 — 1953, I can testify to the correctness of the above statement, I quote:— “Gal Oya has become almost a household word, it is symbolic of the New Lanka. May it obtain fulfilment speedily and herald the progress of our march towards self sufficiency”. With these words the Rt. Hon. D. S. Senanayake the Prime Minister unveiled the commemorative pillar at Inginiyagala on August 28th 1949.

As to what happened thereafter and the situation in 1980, including that of ‘science’ had been referred to as the “science of underdevelopment” by Prof. Weerakoon in his address of 1980. He discusses the events which makes one to raise the following questions:— “What is the nature of underdevelopment? Why have we failed despite 30 years of work, despite two decades of development aid, why have we failed to better the life of our people? What went wrong?” He then goes on.

To give a short answer: Nothing went wrong... Nothing went wrong; everything worked out according to expectations — not our expectations, of course, but the expectations of those who control the world's finance and industry.

Nothing went wrong. What was wrong and is wrong is our understanding of our position. It was this wrong understanding that led us to expect a brave future, freedom to shape our future without the constraints of colonialism. We did not understand the true position, that we were moving out of colonial exploitation into a more disguised, more efficient, multinational exploitation. Even the most radical leaders made this mistake in maintaining that the winning of what they called bourgeois-democratic freedom was a step forward, a small step but a step forward. It was not. It was, in the circumstances, a step backward.

Had we realised the true position we might, short of altering the basis of economic relationships in our societies so as to prevent exploitation, we might at least have entered upon our futures with our eyes wide open and our wits truly on the alert — so as to protect ourselves somewhat from the aim and the advice of our exploiters, however camouflaged they might be. We might have curbed somewhat the fierce appetites for profit and by permitting a limited and carefully controlled exploitation of ourselves, ensured in return, not the beads and baubles of a spurious wealth but the real ability and the wherewithal to build our countries for ourselves.

This, incidentally, contains the answer to another question, a rhetorical question, which is often so cleverly flung at us the hard-pressed peoples of the 3rd World: “If Russia permits investment by European capitalist firms like FIAT and invites Japanese multinationals to “develop” Siberia; if the Chinese permit investment by Western Capital, what's wrong with our doing so?” What's wrong is that we do not impose the necessary controls. We do have control — it is the NECESSARY controls that are generally missing. Unaware of insufficiently aware of the real nature of the relationships between ourselves and those who “assist” us we are unable to decide on the appropriate controls.

And so, we have been developed. We have been developed as the other side of the coin of wealth and industrialisation, the other side of the coin of the wealthy 1st world. We have been developed as the sources of the cheap raw materials essential to it, as the source of excellent low-cost finished articles and components, of cheap luxury foods, of cheap expendable labour.

And what of our Science and Scientists? Naturally, they cannot expect to escape the consequences of their countries' distorted develop-

ment and impoverishment. For example: Research Libraries are starved of essential journals, research laboratories of basic equipment, young graduates of the necessary post-graduate training. Older, trained scientists are suffocated in a flood of barely competent foreign experts, entering the country with and as the major part of the foreign aid inflow. Incredibly unsatisfying work-conditions, aggravated by steadily falling living standards, force scientists and technologists out of their own countries into the advanced industrialised states, where their talents are given scope and proper reward. Third World countries have thus become a source also of low-cost, High-performance Scientists, Physicians, Surgeons, Engineers, and the like trained personnel.

Yes; we have been developed; that is why we are the poor nations.

Viewed against the background of the questions raised in 1980 and the so called development that has taken place since then, the country has gone from bad to worse. Evidence of this can be gathered from several of my previous articles that have appeared in the newspapers as well as gatherings of scientists. Back of space does not permit me to quote reference to these. But I could do so if it becomes necessary. However, let me draw the reader's attention to the comment made by the Science Editor to just one of my articles titled “water development projects then & now” (ref the Island of 31.3.94).

Our reproduction of the recent “New Scientist” article on Samanawewa and Victoria projects (titled “British to probe enormous aid blunders in Sri Lanka”, carried in two parts on March 10 and 17) has renewed the national debate on the merits and demerits of large scale dams and multi-purpose water development projects. Last week, we carried a rejoinder sent by Dr. P. A. A. Back of M/s Alexander Gibb and Partners, the British consultancy company which was closely associated with both Victoria and Samanawewa projects. This week, we carry

authorities to make public the report of the Commission of Inquiry which looked into the problems of the Samanawewa project at the initiative of the late President.

N.B. The Commission Report not yet published! Why?

Conclusion

In my presentation on “Some mysteries of the earth and challenges facing Sri Lanka”, in addition to several photographs exhibited, the following statements too were highlighted:—

a) “Mysteries are complex; but some appropriate answers meaningful to the situation in the country have been given by the me gatherings of scientists since 1964; and even to 27th ext. 1998 before a special panel of the SLAAS/G.R.C. 1998”

b) “Addressing the scientists and technologists on 17.12.92, the then Hon Minister of Finance told them:— It is necessary for developing countries to develop simpler and cheaper technologies which are more appropriate to our special needs. This is the real challenge for our scientists, engineers, and technologists today.

“What we do need are persons who having absorbed the scientific knowledge of the west, can adapt it to the pressing development problems of our countries”.

c) In the foreword by Rt. Hon. D. S. Senanayake to the book on “Ancient Irrigation Works” in Ceylon by Brohier 1933, he states:— “If any governor deserved the gratitude of the people of this country, Sir Henry Ward has a pre-eminent claim to it. Seeing the country for himself with his own eyes and not through rose coloured spectacles, investigating personally... he was imbued with a deep sympathy for the people whose agricultural system had been permitted by his predecessors to crumble through neglect”.

Let me end this article with the following brief notes:—

i) The scope of science for meaningful



Victoria project under construction

both these are published in a book titled SLAAS Proceedings Part I, 1998. This was issued to the members of the SLAAS, and no doubt to the special guests. Item D-60 appearing in this document as well as the Poster Programme gives the title of this item viz. “Some mysteries of the Earth and challenges facing Sri Lanka” by A. T. G. A. Wickramasuriya. A copy of this abstract follows:—

Abstract

The Earth has a history of mysterious events. Some have occurred during the distant past, others can be seen even today. To what degree these are caused by natural or human activities are topics of controversy among scholars. Certain events in Sri Lanka too bear testimony of this, when we consider:—

As to how the peneplains came to be formed, or the collapse of it's civilisation towards the end of the 12th century; or the collapse of the sancstone reefs, the promontories, and coast erosion now taking place.

Based on evidence gathered in the ruined cities of the Raja Rata old maps, air photographs, topographical maps of the coastal region, and most of all from field observations by the author during the past four decades (some of which are already on record); the objects of this presentation is to prove that there has been from the distantpast, to the present a growing imbalance between the land and sea in this part of the earth including Sri Lanka.

The cause is attributed to a rise in the sea level. This view is confirmed by experiments conducted by the author of hydraulic models. The studies have also shown that the geographical location of the island in the Indian Ocean is such that the dynamic component of the energy does the most damage by coast erosion on the one hand and causing to rise in the flood levels inland. This in turn results in environmental changes amounting to a depletion in the island's resources.

The most meaningful approach to these problems and the needs of the country is therefore to harness the energy of the sea as far as possible. Field and laboratory studies already done by the author prove that this is possible. Favourable sites for such schemes have been identified.

Attendance

On the 17th December I was present when the President of Section (B) delivered his address titled:— “Land degradation in Sri Lanka:— Causes, effects, remedies”. It was by Prof. Ranjit

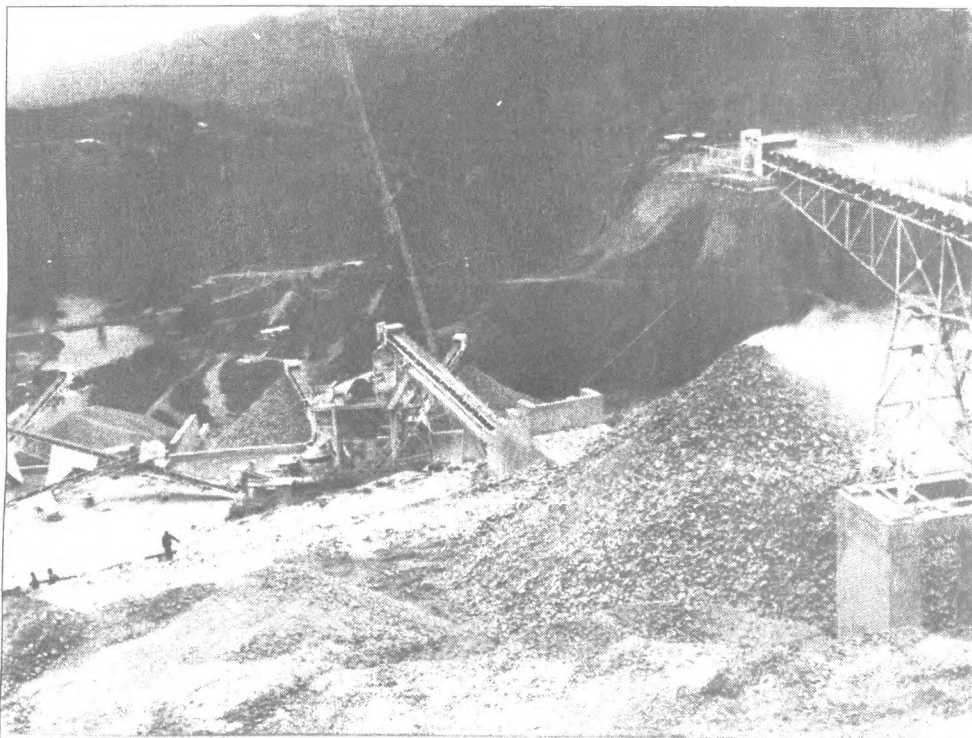
presidents of scientific bodies have been found guilty of such sins. But yet they find their way to similar or higher positions of authority, at times even at global levels. How does this happen? And what is the remedy? Here too I wish to state the causes as well as the remedies; these may be gathered from the following statement made by Prof. Indraratne in the mid portion of his conclusion viz. “Economic fundamentals must be strong. Corruption must be stamped out and transparency and accountability must be enforced in every sector of the economy”.

The above applies more strongly to all who are in positions relating to every activity where funds whether local or foreign is involved.

This is a situation that has slowly but steadily kept going from bad to worse, during the past decades as may be gathered from the Presidential Address of Prof. A. C. J. Weerakoon at the SLAAS annual sessions of 1980. Prof. Weerakoon was a biologist with long standing experience both as a lecturer at the Sri Jayawardenapura University, as well as the head of the research section of the Dept. of Fisheries. I wish to quote two excerpts from his address, which begins by a reference to Prof. Kandiah, an eminent chemist and one of the founder scientists of the SLAAS. He was also the first General President of this association in 1947. (I was privileged to be one of his students for 3 years at the University College, Colombo).

I quote Prof. Kandiah. “The inauguration of a National Govt. under the leadership of the Hon. D. S. Senanayake is an event of great historic importance. This seems to be the most appropriate time therefore to examine our economic position and inquire into the needs of agriculture and industry and prepare plans for long term national development. The present conditions clamour for fundamental reforms. Primitive rural economy must be replaced by planned agriculture and industry; the courses which lead to widespread unrest have to be eliminated and the urge for a higher standard of living has to be satisfied. The solution of these problems demand the scientific and planned utilisation of all the resources of the country. The sound economic development of Ceylon will depend on the extent to which science will be utilised”.

Now I quote from Prof. Weerakoon's address of 1980 where he records that:— “Prof. Kandiah went on in the rest of his address to place before the Prime Minister and the nation the blue print



Samanawewa at the time of construction

the views of Mr. A. T. G. A. Wickramasuriya, retired Deputy Director of Irrigation and Consultant engineer, who makes the point that Sri Lankan engineers and administrators must share the blame for the blunders at Victoria and Samanawewa. To draw a contrast with how similar projects were implemented in the past, Mr. Wickramasuriya quotes from his and his colleagues' personal experiences with the Gal Oya development scheme, Sri Lanka's first multipurpose reservoir built soon after Ceylon gained independence. We invite other concerned professionals and laymen alike to join this debate, and would in particular expect a response from the engineering profession whose members have been closely associated with the designing and construction of the Mahaweli and Samanawewa projects. We also urge the

development, has to ensure the sustainability of its' projects to meet the needs of our people, not only during times of peace, but also during times of war, whether it be at a global or regional level.

Aid pacts, trade pacts, information pacts, (like the V.O.A.) etc. are at the best can only be timeservers.

In the long term they undermine our degree of independence, and results in “underdevelopment”.

ii) Time servers whether they be economists, scientists, or politicians etc. can fool some of the people all the time, or all the people some of the time; but none can fool NATURE at anytime! (I am glad I had the opportunity to transmit the above views i ii, to several scientists who were present at my poster presentation (D 60) on the 18th December 1998).