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Acknowledgement

This special issue of the Bulletin is dedicated to the memory of the late Prof. Malcolm S Adiseshiah.

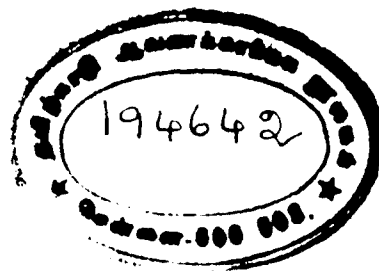
I am obliged to the contributors of reminiscences to this volume for their warm response. I request their forbearance in cases where their writings had been pruned to accommodate the need to keep the publication within manageable limits.

The Faculty of the Institute assisted me in several ways in preparing this special issue - in suggesting the form as well as the content of the different sections, in providing material for the brief biography and editing it, in classifying the material and writing the introductions, in translating Tamil contributions, in the selection of as well as the excision of material and in arranging them in alphabetical order. A few bore most of the burden. Two Research Scholars helped in reading proofs. This volume is a product of team work. I individually acknowledge my indebtedness to every one who assisted me and to all of them collectively.

Dr. Asha Krishnakumar, Ms. Sandhya Rao and Mr. Srinivasan from the "Frontline" volunteered their services to language edit the whole material. To them went the difficult task of abridging the three articles on Economics, Environment and Poverty by Prof. Adiseshiah subject to the suggestions made by the faculty members. I express my sincere gratitude to them.

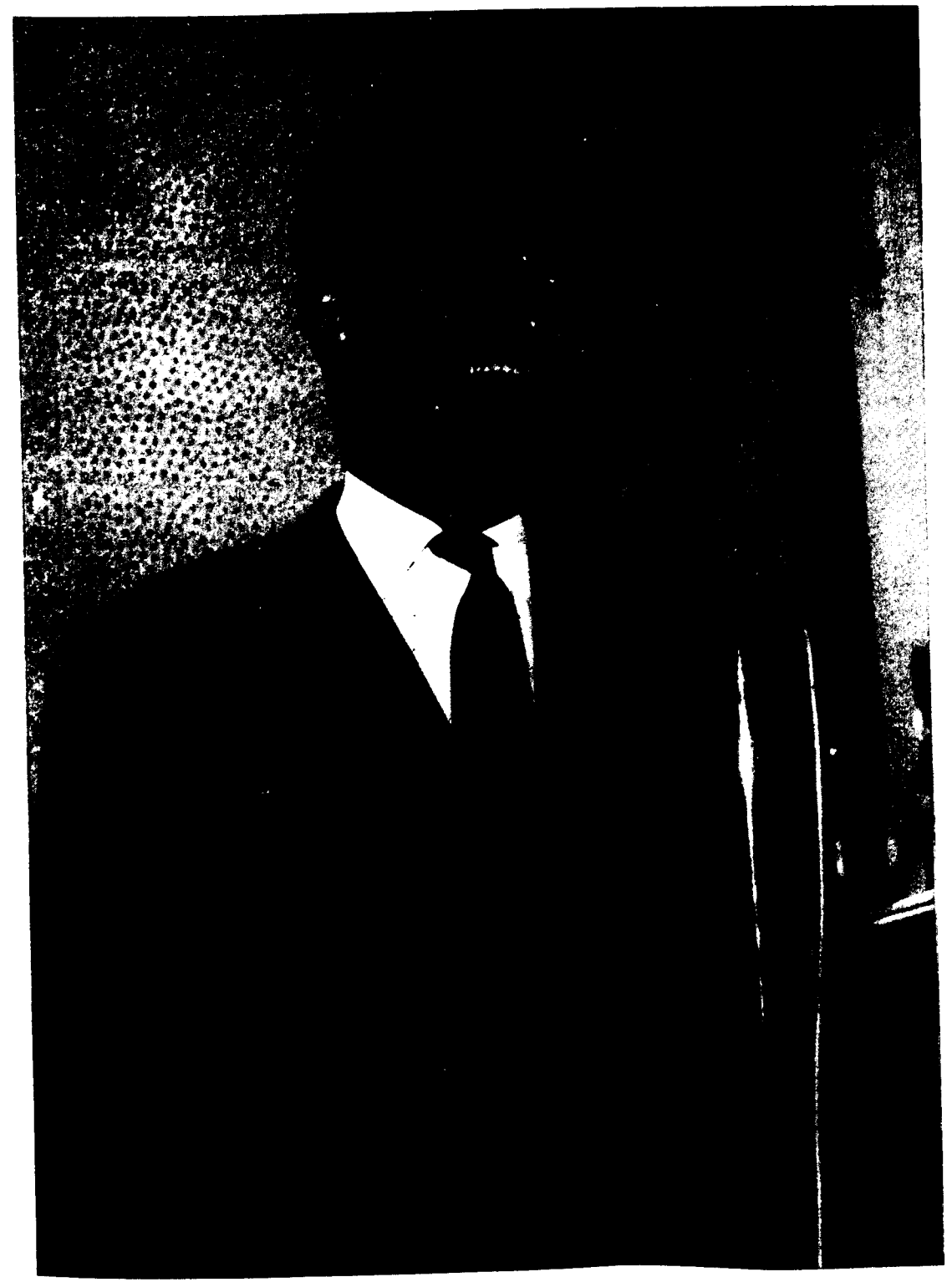
M/s Oxford University Press, New Delhi, Sage Publications, New Delhi and Indian Economic Journal, Bombay generously gave us permission to reproduce Prof. Malcolm S Adiseshiah's papers for which they hold the copyright. My thanks are due to them.

Ms. L.Celine, Prof. Malcolm S Adiseshiah's stenographer, prepared the bibliography of his writings. Mr. C. Narasimhan wordprocessed several drafts of the material. Ms. M. Vijayakumari wordprocessed the biography section. Mr. R. Dharumaperumal organised the whole material for printing. Dr. V. Jacob John co-ordinated the entire task from the inception. To all of them I express my sincere thanks.



21st November 1995.

S. Neelakantan
Director and Publisher



PROLEGOMENA *

This special issue of the Bulletin is dedicated to the memory of Dr. Malcolm Adiseshiah, who founded the periodical, edited it, and guided its destiny for an unbroken spell of twenty-four years. With this special issue, the Bulletin ceases publication. Vol.I, No.1 of the Bulletin appeared in February 1971, and Vol.XXIV, No.12, which was the last issue in the 'regular' series, appeared in December 1994. This makes for something like two hundred and fifty issues without a break over a period of just under a quarter of a century. The Bulletin Editorials, when put together, would constitute a remarkable compendium of change and continuity in the economy and society of Tamilnadu, India and the world at large over the decades of the '70s, the '80s and (a part of) the '90s; this, surely, is the stuff of which archives are made. Every one of the Editorials was written in long hand on ruled foolscap, with the long hand becoming more and more painfully spidery with each passing year. But, till the end, the head and the heart which guided the long hand were as unwavering as was the constancy of the Editor's commitment to his task. If a person did nothing else, from year's end to year's end, but edit the Bulletin, it would be cause for not a little wonderment at such stamina and consistency; but what is truly awesome is that the Bulletin represented only a tiny fraction of this particular person's immensely crowded agenda. It might have been a tiny fraction, but it was a weighty one; like many other relatively 'small' things in Dr.Adiseshiah's life, the Bulletin, too, occupied a privileged position in his scheme of things as something that needed to be attended to with care and commitment. The Bulletin was the organ that published the proceedings of that other remarkable MIDS fixture invented by Dr.Adiseshiah: the monthly seminar. Month after month, for eleven months in the year, a speaker would be invited to address a seminar on some developmental issue. The Bulletin also, at periodic intervals, brought out a painstakingly compiled Census of Social Science Research in Southern India. Another feature of the Bulletin was its publication of selected papers presented at the Institute's annual Interdisciplinary Research Methodology Workshop.

Dr.Adiseshiah's energy and single-mindedness of purpose are deeply inspiring; they are also not easily replicated, even on a diminished scale. Perhaps partly in anticipation of this, and partly as a concession to a tiredness too long deferred, he had decided that the Bulletin would cease publication in mid-'95; he invited Dr.C.T.Kurien to take charge of a journal, to be called Review of Development and Change, that would, so to speak, take over from the Bulletin. The monthly seminar series, too, might be difficult to sustain indefinitely into the future in its present form. Change is an integral feature of life, and Malcolm Adiseshiah was no votary of the fossil: he would surely have welcomed evolution and innovation.

* Very many of Malcolm Adiseshiah's Editorials in the Bulletin began with a 'Prolegomena': it seems right, for reasons of sentiment and affection, to preserve that practice in this the last, special, issue of the Bulletin. (For those that might have some difficulty with the Professor's classicism, as we did, the remedy is a dictionary: a prolegomenon is an introduction).

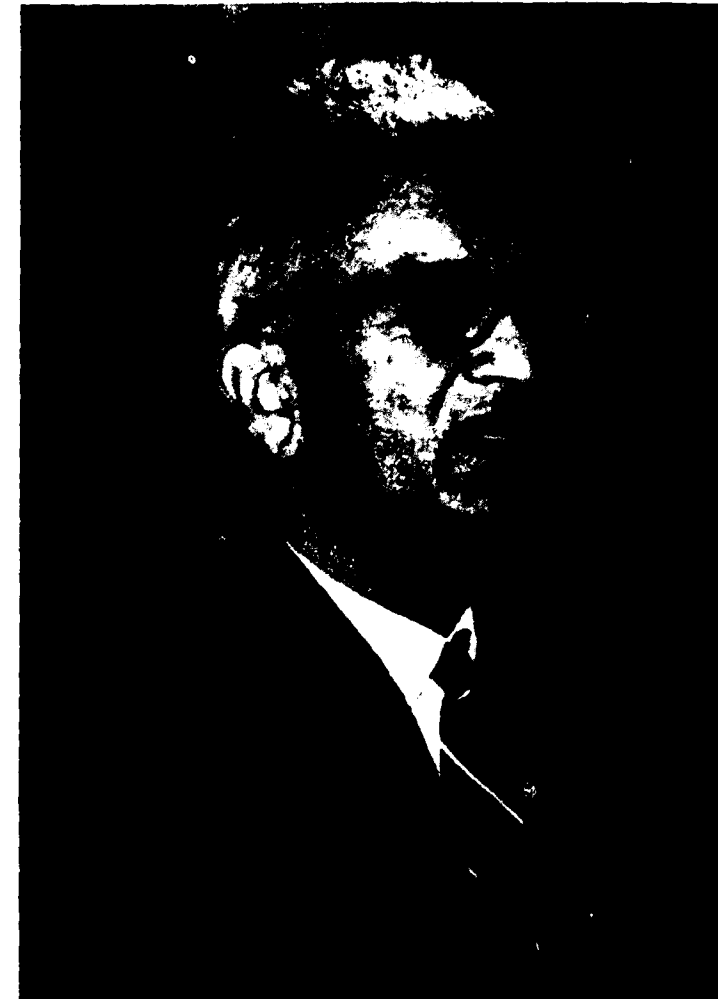
It is good to look to the future. But both science and attachment will ensure that this Institute's vision for the future will always be informed by a memory of the values and integrity that, in Malcolm's persona, went into the building of its past. For just a moment let us recall two vignettes from that past, the first of which is constituted by an excerpt from the very first issue of the Bulletin, and the second by an excerpt from the very last issue both, unmistakably, authored by Malcolm Sathianathan Adiseshiah.

'It was left to the over score of economists drawn from all over India to keep emphasizing the prior precondition of economic growth and economic development whose methodology should itself be an exercise in social justice, while growth and development are simultaneously the only sure base for any effective programme of distributive justice. The cake must be shared equally and for this there must be a cake and a growing one that can be shared'.

'In the end, as Gandhiji taught us, the only purpose of education is the building of one's character. This is what the Christian Faith teaches as Jesus did through his many parables, of the wise virgins, of the men given talents, and in his crucified form when he endorsed the words of the thief who was crucified alongside of him on his right. This is the simple and ultimate test of the entire philosophy of education, its building men and women of character. This is really an urgent and appropriate issue and is the end purpose of all education, because the ills of the world starting from cheating, corruption, violence, murder, untruths, on to wars wrecking Somalia, Bosnia and our own Kashmir, and the designing, manufacutring and dropping of atom bombs is by men and women who have had education some even at the highest level. In fact no illiterate, uneducated person is involved in these grave misdemeanours, only the educated are involved. And so education must develop our character, if we are to serve ourselves, our society and our God in the image in which he created us.

Malcolm Sathianathan Adiseshiah

A Biographical Sketch



The followig piece is a brief review of certain important features of Malcolm Adiseshiah's life. It would be futile to attempt anything like comprehensiveness in dealing with such a vast subject in so short a space, and that attempt, accordingly, has not been made here. Nevertheless, there are many aspects of Dr. Adiseshiah's life that have remained unknown to many people - including in particular, to the people who have worked for years with him. This piece may help inproviding a broadly informative outlin? of Dr. Adiseshiah's life and times - even if it often only assumes the form of recording certain important milestones in his personal and public life.

Dr. Malcolm Sathianathan Adiseshiah

A Biographical Sketch

"... Those who had the privilege of working with him from the early years of technical assistance, and the following years of growing success and achievements, witnessed the outstanding performance of a man whose extraordinary vision immediately recognized the opportunity offered, projected its potentialities into the future and made the dream come true. This required no less than the towering quality of his intelligence, his rare organisational ability and resourcefulness, his uncommon physical stamina, his unrelenting pace of work and unflinching dedication to the task at hand and a faith coupled with realism which carried mountains..."

This quote from Rene Ochs, former UNESCO Director, about sums up Adiseshiah's personality.

Born on April 18, 1910 at Vellore (now in Tamil Nadu), this second son of Varanasi Paul Adiseshiah, professor of philosophy and principal, Voorhees College, Vellore, and Grace Nesammah Adiseshiah, had his education at Voorhees School, and College; Loyola College, Madras; King's College, Cambridge; and the London School of Economics and Political Science, London, where he obtained his doctorate in economics.

Adiseshiah began his career as an economics lecturer at St. Paul's College, Calcutta, where he served between 1931 and 1936. For six years from 1940 he was professor of economics at Madras Christian College (MCC), where he taught the first batch of the economics honours class (1941-44). His teaching career laid the foundations for a life-long interest in education. He introduced to Madras students Keynesian economics, besides instilling in them certain values, as reflected in his "trial tests" when he left them by themselves without any invigilation. He introduced, for the first time, seminars to supplement class-room lectures. He also started the Rural Service League to enable students to render service even while learning how the economy functioned at the grassroots level.*

Adiseshiah joined the World University Service in Geneva in 1946, and UNESCO as Deputy Director of the Department of Exchange in 1948. He was promoted first as Director, one of the six highest executive posts, then as Assistant Director-General, and finally, as Deputy Director-General in which capacity he continued for the last eight years of his 22-years career with UNESCO.

When in August 1949 UNESCO adopted Resolution 222 (IX), establishing the expanded programme of technical assistance for economic development of underdeveloped countries, Adiseshiah grabbed the chance. He became the chief architect of the operational programme of UNESCO, taking the initiative to expand it to

cover all countries, with emphasis on underdeveloped nations. Its budget grew from \$2.8 million in the 1950s to a whopping \$300 million when he left Paris in 1970.

He distributed this carefully among the 127 member-countries in the developing world establishing over 120 projects a year. He was responsible for the Karachi Plan for Universal Primary Education for Asia, the Addis Ababa and Santiago Plans for African and Latin American educational development and corresponding science plans for Asia, Africa and Latin America.

The technical assistance projects funded by UNESCO in India under his stewardship included: NCERT, New Delhi; first educational TV broadcasts; the reorganisation of the Films Division of India; the renovation of ten temples in Tamil Nadu; US \$12 million worth equipment to Bombay and Kharagpur IITs; the development of Aeronautical Engineering at MIT, Madras; provision of experts and equipment to Alagappa Chettiar College of Technology, Madras; commissioning of Rajaji to translate Thirukkural into English and later publishing that classic in French, Spanish, Russian, German and Arabic; the publication of the UNESCO Art Album on Ajanta; and the publication of the UNESCO 'Courier' in Hindi and Tamil.

As acting director-general of UNESCO, he inaugurated the Third World Tamil Conference in Paris in 1969 - delivering his address in three languages Tamil, French and English. In 1970, his last year with UNESCO, he organised its cooperation in setting up the International Institute of Tamil Studies in Tamil Nadu.

Just before his return to Madras, at the age of 60, in September 1970, he and his wife Elizabeth registered in Paris a Trust for starting the MIDS. The MIDS started functioning from January 1971 in one of their properties in Adyar - a Madras suburb. Then followed the publication, 'Bulletin - Madras Development Seminar Series'; the annual Ph. D. Scholars and Guides Workshop; the annual Meeting of the Social Scientists of Southern Universities; and the annual Inter-disciplinary Research Methodology Workshop and the annual compilation of Census of Social Science Research in the four southern states.

When in March 1977 the MIDS was reconstituted as a national institute, under the joint sponsorship of the Indian Council of Social Science Research and the Tamil Nadu Government, the Adiseshiah's gifted to it land, a building, a library, furniture, and equipment besides a generous endowment. MIDS undertakes studies and research on developmental issues on the economy, polity and society with special reference to Tamil Nadu.

Though Adiseshiah relinquished the directorship of MIDS in 1978, he continued to evince keen interest in its activities, remained one with it, and continued as chairman of its Governing Council till the end. He was responsible, along with the directors and the faculty, building up MIDS's reputation in the country and abroad.

Even while encouraging ideas to clash to generate more ideas, he could dissipate the heat, throwing at the same time that much more light on the debates. Adiseshiah

* Mr. Eric Prabhakar's and Bishop Sundar Clarke's reminiscences in this collection contain a few other biographical details.

fiercely and steadfastly maintained the autonomy of MIDS, not willing to compromise it by obtaining funds with strings attached. The MIDS, which he assiduously built, has one of the best social sciences libraries. He has bequeathed a major part of his savings for research in the social sciences.

When Adiseshiah was appointed Vice-Chancellor of Madras University, he was a man in a hurry to rejuvenate this fast degenerating institution. He immediately made known what he wanted to achieve and, when he relinquished office in 1978 did not forget to review what had been accomplished and what remained to be done.

He prepared a 15-year perspective plan for the University; and in just three years decentralised its functions, gave authority to the affiliated colleges to admit post-graduate students without the approval of the University, started new departments such as econometrics, education, adult education, area-studies and defence-studies. He combined teaching with research in the departments which had till then avoided the teaching responsibility. He implemented the UGC scales of pay though the Tamil Nadu Government then had not taken a decision about it.

He gave autonomy to select colleges on the basis of the recommendations of the Kothari Commission. He introduced the semester system, arranged orientation courses for adaptation to the new system, introduced a community service scheme into the curriculum and organised studies to improve the existing conditions of affiliated colleges. He gave autonomy to the two post-graduate Centres at Trichy and Coimbatore, and appointed directors to head them so that they do not have to depend on the headquarters for every decision. This paved the way for their smooth transition into universities. In 1976, he was conferred the Padma Bhushan and in 1978 he was nominated to the Rajya Sabha for six years. He carried to Parliament his conviction and his qualities as a humanist, critic and reformer and acquitted himself creditably as an able and eloquent member, receiving attention and respect.

Despite the official preoccupations, Adiseshiah pursued his various activities with enthusiasm and vigour. He served the Tamil Nadu Planning Commission for many years. As its vice-chairman from 1971 to 76, he was instrumental in the preparation of many perspective plans for Tamil Nadu including one on education. He was a member of the Steering Committee of the Union Planning Commission. He was a member of the Advisory Committee on the Asian Research Programme and the Asian Conference on Teaching and Research in Social Sciences. He was coordinator of the UNESCO working group on the New International Economic Order. With a lively interest in environmental issues, he was a member of the UN International Committee of Consultants on Environment. He was associated with the India International Centre (IIC) since 1961, and was elected a life trustee in 1978. Ever interested in its activities, he started the 'Economic Affairs Group' whose discussions have influenced decisions on important issues of public policy. He was concurrently the president of the governing bodies of the Council of Social Development and the Institute of Social Sciences.

Delhi; and succeeded Mr. G. Ramanujam as the president of the National Centre for Industrial Harmony, Madras.

Adiseshiah's contributions to the growth and dynamics of education are numerous. These include the devising of the curricula for primary and secondary education; vocationalisation; preparation of teaching material; introduction of science and technology at appropriate levels; preparation of syllabi for collegiate education; examination reforms; giving a new thrust to the quality, content, direction and methodology of social science research; compilation and analysis of educational data; and financing of education.

He was instrumental in the setting up of the Asian Social Science Research Council in New Delhi and was its first president. He was Member of the Central Advisory Board of Education, the Indian National Commission for Co-operation with UNESCO, the Indian Council of Social Science Research, the National Council of Educational Research and Training (NCERT), and the National Council of Teacher Education. He was chairman of the panel which reviewed the functioning and the future development of the Tata Institute of Social Sciences, and of the Social Science Department of Andhra University, Waltair. He also chaired the committee set up to recommend the establishment of a Women's University in Tamil Nadu.

Adiseshiah's lifelong commitment to educational development was not confined to formal education, but included non-formal, continuing and adult education. He was the founder of the Tamil Nadu Board of Continuing Education in 1976 and was its president for four terms. He chaired the Non-Formal Education Curriculum Preparation Committee, 1976. He was president of the Indian Adult Education Association and the Vishwayuwak Kendra. He worked ceaselessly for the cause of total literacy and was actively involved in the total literacy campaign from its inception. He was adviser to the National Literacy Mission, Government of India (1988), and the UGC Standing Committee on Adult Education Commission. He was instrumental in founding the State Resources Centre in Madras whose new building is named after him.

As a witness to an era of technological change on a massive scale, he firmly believed that technology should be used to solve the problems it created. He advocated mass dissemination of knowledge of science and technology to reap their benefits even while calling for innovations to control and mitigate the evils they had generated. As president of the Tamil Nadu Council for Science and Technology from 1984, he devoted considerable time and effort to it. He was also associated with the activities to take science to the common man and was president of the Bharat Gyan Vigyan Samithi (1989).

Adiseshiah made wide ranging contributions to various aspects of economics. He did not approve of the wide disparities in income and emphasised the role of the

There are in the UNESCO archives 118 files of Malcolm's and even by a rough estimate they have about 48,000 pages. I will record briefly two of his major areas of work at UNESCO: First, his pioneering work of launching and developing technical assistance projects in the Third World; and second his eight-year spell as the Deputy Director General.

The United Nations General Assembly, at its fourth session in November 1949, authorised the Secretary General to open a special account to receive voluntary contributions of member states, for the funding of the expanded programme of technical assistance for underdeveloped countries. It was a momentous resolution and opened a completely new vista for the UN agencies. And, without a moment's delay, the UNESCO general conference in November 1949, approved the Organisation's participation in the expanded programme. In March 1950, a technical assistance section was established which quickly expanded to a department, with Adiseshiah as director. It was all that he had hoped for, from the beginning, and he entered his new assignment with joy and passion, and with the certain knowledge that it was his destiny to care for the poor.

Malcolm was authorised to represent the Director-General at the technical assistance board, set-up by the UN. He was given authority, which he fully exercised, to organise the new department and the procedures and methods of operation. He established area desks, corresponding to the UN geographical regions; an administrative division, and a report and information unit which, *inter alia*, produced periodically a technical assistance bulletin which served as a link between experts and provided governments an insight into the more interesting field activities. All unit chiefs reported directly to him and he trained them to understand and function on the basis that self-reliance was the basic purpose of technical assistance and that it should be done by building up the country's managerial, technical, administrative, and research capabilities.

All in UNESCO were made to understand and respect the authority of the recipient government, however poor or small, and its sovereign responsibility for implementing the technical assistance projects in its territory. The technical assistance department drew heavily on the professional competence in various departments of UNESCO for the benefit of the projects. The reflective, research-oriented, and normative work contained in the regular programme and the various experiences in other countries, selected after critical examination, were made available to developing countries.

As technical assistance activities grew in its spread and experience under Malcolm Adiseshiah's stewardship, it gave as much as it got to the regular programme. The intimate knowledge of developing member-states, which soon became the majority and whose needs were greater, brought more realism and relevance to UNESCO's programme, its approach, methods of work and its activities. Full technical support from the bureau of personnel and the exchange of persons service was obtained. A valuable roster of experts and dossiers of centres of excellence for fellowship placements were maintained. The visibility of the technical assistance programme, the immense needs of the developing

countries, and the scarcity of funds, all demanded high degree of returns. The excellent results achieved, in turn, resulted in considerable fund increases: the expanded programme grew to the much larger United Nations Development Programme and Adiseshiah, almost single-handedly obtained World Bank funds for educational development. The Banks were reluctant to get involved in the sensitive area of education; "brick and mortar is our kind of business" they said. But Adiseshiah convinced them that education was of decisive importance in attaining economic and social development. It was he, along with a World Bank Vice-President, who drafted the memorandum of understanding signed in 1964 by the UNESCO Director-General and the World Bank President.

Malcolm worked 10 hours a day, never a minute late to enter his office at nine in the morning, going home for lunch at 1.30 in the afternoon and never leaving the secretariat before 8 at night. His family knew full well these schedules and adjusted accordingly. Malcolm's father, a professor of philosophy and the first Indian principal of Voorehees College and a man of discipline and regularity of habits, visited his son for a stay of three months in Paris. The father must have his lunch at 12.30 by the clock and Malcolm an hour later. Both father and son preferred Indian food, which, in the Paris apartment, only Elizabeth could deliver. She had a problem on her hands. But she was a resourceful person, as she had to be dealing with such a meticulous man. So, when no one was around, she shifted the clock an hour back after breakfast and set it right after both had eaten and gone their respective ways. Elizabeth, known affectionately as Sanchu, kept a good home for Malcolm and left him completely undisturbed to pursue his work single-mindedly.

Malcolm had to be urged repeatedly, at least by two, the Director General and his senior emissary, to accept the highest non-elective post of Deputy Director General. For 12 years, he had been immersed in helping the Third World with specific projects: the universalisation of primary education in select areas, producing literary primers, methodologies and material designs for adult education, curriculum materials for primary schools, improvement of science education, and a hundred others. Many of them were not yet complete, some had just started and would take several years. Why, then, accept the elevation, a post which will only take him a step further away from ground realities that he had got to know so well over the last 12 years? His natural authority was not based on hierarchy but on missions accomplished, resourcefulness, enthusiasm and an uncommon mastery over the art of teaching. Ultimately, in 1962, he accepted the post of Deputy Director General, but with a tacit understanding that he will continue to have an over-all responsibility for technical assistance activities of the organisation.

The Regional Conferences of Ministers of Education, which he initiated, continued to be in his charge till the end. The first was in Karachi in 1960, and the next in Addis Ababa. They were policy and planning conferences of the developing countries of the region, at the highest level, and set the pattern for conferences in the Arab states, Latin America and the Caribbean. They were initially in the education sector but soon the

Students from poor families, whose parents are illiterate or with low education, do not have this kind of parental support, which is decisive in regard to academic achievement at the high school and university level. Therefore, at all these levels of education, additional compensatory education for students from poor families becomes essential.

This brings to the fore the special responsibility of the teacher in his relationship to the learning responses, or non-responses of his students, especially of those from poor families. Almost all teachers are from the non-poor sector of society and so there is a startling cultural gap between the teachers and the students from the poverty sector. Further, the teachers are at the secondary and college levels trained or brought up in a tradition, where the teaching is addressed to the students in general, and not to the particular condition and situation of each student. Education in the end is a one-to-one relationship, which involves a dialogue among the learners. But in effect teaching has become a monologue which means there is little or no learning. Also, the teachers are involved much more in trade union type activities paying very little attention to teaching, learning, research, etc. The question that is raised here is in the selection of persons who enter the teaching profession whether there should be an element of personal commitment, a sense of vocation that should be tested?

While this kind of test may be difficult on a vast scale by the government, should a start be made by voluntary organisations running schools and colleges? A related issue is - can teachers regain a sense of their vocation as long as education is a routine government/bureaucratic exercise? A second issue is the content of the training of teachers. As the majority of the society is in the poor sector, and as children from that sector should form the majority in our schools to start with should not the training programme of our teachers include a study of the nature of society - of the affluent minority and the poor majority, an understanding of the culture of the poor, and how learning can be directed to meet the special features of that culture? Above all, given the fact that poverty will be with us for some time, should not the training of the teacher include ways and means of the school (and the teacher) going out to the students from the poor families to help them learn, instead of only waiting for them to come in to the school. This will also help solve the problem of hostility and negativism, which the class room arouses among students from poor families.

There is also the problem of curriculum and textbooks. The curriculum is at present rather heavily oriented towards the well-to-do, urban, non-agricultural culture of society. This could be in part corrected, if a certain part of the curriculum/syllabus is allowed to be developed by each school, both in relation to culture characterising the region in which it is located and the response of the school going out to the students, in a kind of school without classroom walls. Some of the curriculum/syllabus will have to be common to the district, region, and/or state, but a part varying from 30-50 per cent should be left to the teacher and the students to develop. This means that the teacher has to be trained during his training college days in this kind of curricular development by the school as part of its learning and educational responsibilities.

Similarly, some parts of the textbooks - both in natural and social sciences and in the languages - should emanate, if not from each school, at least from a group of schools in a district or block, so that the teachers and students are, while learning to abstract from reality, also deal with the real world around them. This involves the state departments of education allowing schools to develop in part their curricula/syllabi, and some of their textbooks. On that basis, the training of teachers should involve training them in the theory and practice of curriculum development and textbook production.

At the level of higher education, in the arts and science colleges and universities, there is a very serious situation. Not only at the level are 80 per cent of the benefits - whatever they are in terms of completion of the college/university course - appropriated by students from the top two to three deciles of society, as noted earlier, there is enormous waste involved in the motions that are gone through in the areas of teaching, textbooks and boards of studies etc. Fees charged from the well-to-do students are those fixed three or four decades ago plunging universities and colleges into financial difficulties. The examinations have become a farce, as far as recording a student's learning attainments is concerned.

Under these conditions, arts and sciences education needs to be restructured through: (a) admitting to it students who have an aptitude for higher education, as evidenced in a test designed for the purpose; (b) 50 per cent of the admissions be reserved for students from the poverty sector who will be given loan scholarships to cover their board, lodging and textbooks; (c) all other students to be charged fees which will be raised every two years till they reflect the rate of inflation in the country; (d) study programmes should be semesterised and be subjected to a number of internal tests, such as quizzes, home assignments, internal exams, seminars and library work as a means of continual interest assessment; (e) a cumulative record of learning study, which will replace the external examination. I conclude that in this restructured higher education, in which community and social service in rural and urban slums will be part of the curriculum, the culture of the poor will receive its share of attention.

Presidential Address - World Literacy Jury	Unesco, Paris.	September 9, 1991
Presidential Address	Dr D T Lakdawala Memorial Symposium Institute of Social Sciences, New Delhi.	September 1992
Presidential Address	World Literacy Day, Unesco, Paris.	September 8, 1992
Convocation Addresses		
Let my country awake	Viswabharathi, Shanthinikethan,	February 1977
Graduating Futures	Osmania University, Hyderabad.	April 19, 1979
Some Thoughts on Our Future Education Tasks	International Award Day Oration, Kodaikanal International School,	March 1, 1985
Our Future as Graduates	Convocation Address - Berhampur University, Orissa	May 17, 1985
Engineering Industry and Engineering Education	26th Annual Convocation, Indian Institute of Technology, Powai, Bombay.	July 27, 1988
Keynote Addresses		
Innovations in Education	The Nineth Annual Conference of the Indian Association for Programmed Learning and Educational Innovations, Calcutta.	January 8-10, 1977
Some Thoughts on Non-formal Education	National Seminar on Productive Non- formal Education for Sri Ramakrishna Mission Vidyalaya, Coimbatore.	January 18, 1977
Some Tasks Facing Secondary Education	Special Mid- term meeting of Conference of Boards of Secondary Education, Madras.	September 23, 1977
Education for Tomorrow	Roundtable III - Foundation for Youth Development, Manila	June 19-21, 1980
Some Notes on Social Sciences and Social Work Curriculum	Workshop on Social Sciences and the Social Work Curriculum, Stella Maris College, Madras	June 8, 1982
Books - their Production, Selection and diffusion	Madras Book Fair, Madras Library Association, Government Arts College, Madras.	January 3, 1984
Entrepreneurship Development for Tamil Nadu	Seminar on Entrepreneurship Development, Madras	July 12-13, 1985
Some Thoughts on Technology, Productivity and Industrial Relations	National Seminar on Technology, Productivity and Industrial Relations, Shri Ram Centre for Industrial Relations and Human Resources, New Delhi	March 3, 1988
Development Goals and Strategies	United Writers Association for the next Decade Seminar, Madras	February 23, 1992
Restructuring and Reshaping the Economic Reforms Programme	Seminar on Restructuring Economic Reforms Scenario Ahead, United Writers Association, Madras.	March 19, 1993

Fiscal Policies and
Globalisation

Inaugural Addresses

Some Issues raised by
Coastal sedimentaries

G.S.I -Its Record and
Challenge

Medical Education - Whose
Responsibility ?

Mathematical Sciences
and their Uses

Social Work-Theory and
Practice: Its past and future

Our Heritage and
Perspectives

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Community Work with
Urban Poor

Private and Public Sector
in Education
Publishing

College Certification and
Employment Market

Art, Science and Culture

Engineers in the Indian
Economy

Growth Strategy in
the 1963-64 Union Budget

Public Libraries
An Assessment

Political Economy of
Planning and
Administration of Education

The World Confederation of Productivity
Service, South Asia Division, Hotel Adyar
Park, Madras.

Workshop on coastal Sedimentaries
of India, South of 18(degrees) North
Latitude ONGC and Geological Survey
of India.

125th Anniversary of the Geological
Survey of India, Madras.

XVI Annual Conference of the Indian
Association for the Advancement of
Medical Education, Chandigarh.

XV Anniversary address to the Institute
of Mathematical Sciences, Tharamani,
Adyar.

Seminar on Four Decades of Professional
Social Work, Madras School of Social Work,
Madras.

The Diamond Jubilee Conference, Indian
Economic Association, Madras.

Seminar - Former Fellowship holders of
The German Academic Exchange Service,
IIT, Madras.

Association of School of Social Work,
Madras.

Seminar on Federation of Indian Publishers,
New Delhi.

Founder Day Address, St Stephen's College,
New Delhi.

Foundation Day Address, Ramakrishna
Mission Institute, Calcutta.

Silver Jubilee Celebrations of the
Indian Institute of Technology,
Powai, Bombay.

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Education and Rural Development	The Panel on Education and Rural Development at The Indian Science Congress, Waltair.
Some notes on Education Financing	The Seventh Commonwealth Education conference on The Economics of Education, Aeerua, Ghana
Structures - International and National - and Development	The international Conference on Adult Education, Dar-es-salaam, International Council for Adult Education, Canada

Some Notes on Socio Economic Problem of Developing Countries	Seminar on Science in the service of Basic Human Needs, Committee on Science and Technology in Developing Countries, ICSU, Hyderabad.	August 10, 1976.
Towards an Afro-Asian Learning Society - An Environment Education Continuum and Conflict	The Colloque "Culture et Development" Organised by Commitee Scientifique International Foundation Leopold Sedar Senghor, Dakar, Senegal.	October 2-9, 1976.
Towards a Learning Society	Seminar on Alternatives in Education, Organised by Indian Institute of Advanced Study and ICSSR, Simla. .	November 26, 1976.
Some Notes on Careers in Applied Scientific Research in Technology	Directorate of Employment and Training, Madras.	December 1976.
Current Challenges and Response of University Youth	Press Information Bureau of the Govt. of India, Shastri Bhavan, Madras.	December 24, 1976.
Some Notes on The Role of the University in Integrated Rural Development	Association of Indian Universities, Coimbatore.	January 17, 1977.
Some Economic Aspects of Life in India Today	Seminar on Doing Theology in the Indian Context - United Theological College, Bangalore.	April 4-15, 1977.
Some Thoughts on Renovation of Higher Education	Silver Jubilee Celebrations Marthoma College, Thiruvalla, Kerala.	September 14, 1977.
International co-operation for Educational Reform in the 80s	UNESCO consultation on major problem areas of Educational Reforms in the 1970s and 1980s, UNESCO House, Paris.	October 24-28, 1977.
Some Thoughts on the Kerala Economy	Seminar on Kerala Economy since Independence, John Mathai Centre for Economics, Calicut University.	November 1977.
The University and National Programme of Education	Indian University Association for Continuing Education, Annual Seminar Saurashtra University, Rajkot.	January 14, 1978.
Restructuring of Indian Education in the context of Present Day Needs and the Role of Continuing education	Association of the Indian Universities, Saurashtra University, Rajkot.	January 15, 1978.
Some Random Reflections on the Federal Polity	Seminar on the federal polity by the Calcutta University Study Circle, Calcutta University, Calcutta.	March 22-23, 1978.
Nonformal Education and Voluntary Agencies	National Conference on Education for Our People, Jesuit Education Association of India, Bangalore.	May 19, 1979.
Participation of Teachers in Adult Education, Educational Extension and Community Development	UGC Zonal Conference, New Delhi.	May 1979.

Adult Education Development and NAEP	Annual Conference, Indian Adult Education Association, Amritsar.	October 7-9, 1979
Educational Technology for Adult/Continuing Education	XII Annual Conference of the Indian Association for Programmed Learning and Educational Innovation, Banaras Hindu University, Banaras.	January 12-14, 1980
Issues in the National Policy on Education	Seminar on Education, Indian Social Science Institute, New Delhi.	February 17-18, 1980
Universities/Colleges and the Programme of Integrated Rural Development	NAEP unit of Gorakhpur University, Gorakhpur.	February 1980
Role of Books in India Today	Seminar on Distribution of Books in India, Federation of Publishers and Books Sellers in India, New Delhi.	March 1, 1980
Adult Education and the Urban Poor	Working Session on Adult Education, International Aid and Poverty, International Council For Adult Education, Washington DC.	June 2-3, 1980
Role of the Ageing in the Developing Society	Preparatory Conference for UN World Assembly on the Elderly World Health Organisation, Mexico City.	December 1980
Public Sector Returns: Measure and Adequacy	National Seminar on Criteria for Performance Evaluation the Public Sector, Institute of Public Enterprises and Public Administration, Madras.	January 21, 1981
National Integration	Golden Jubilee Celebrations, Department of Telugu, University of Madras, Madras	January 1981
Education Trends and Prospects	Department of Education Planning, Unesco, Paris.	February 1981
Some Thoughts on Continuing Education: Status and Future Directions	Annual Seminar, Indian University Association for Continuing Education, Nagpur.	March 14-15, 1981
Some Thoughts on the Role of Agricultural institutions in Continuing Education	National Seminar on Indian University Association for Continuing Education, Agricultural University, Ludhiana	Apr. 28-30, 1981
The Contribution of the Elderly to Development	World Health Day, World Health Organisation, Geneva.	June 1981
Centre, State University and College: Partnership in Education	Postcentennial Silver Jubilee Symposium of Bombay University, Bombay.	March 1982
Literacy and Nonformal Education Reaching the Unreached	South and Central Regional Conference, Associated Country Women of the World, Calcutta.	March 1982
Role of Universities in International Cooperation for Development	Unesco Regional Office for Education in Asia and Pacific Bulletin, Bangkok, Thailand	September 1982

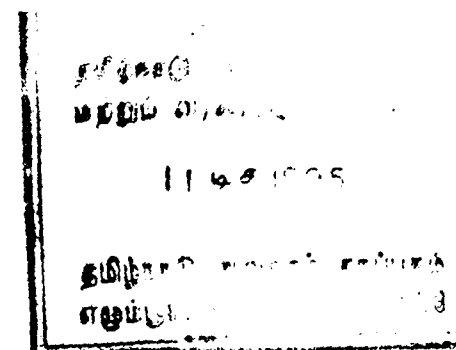
The Next Step on International Financial and Monetary Issues	National Seminar on UNCTAD, Indian Institute of Foreign Trade, New Delhi.	October 1982.
Lome II and the North South Negotiations	National Seminar on India & Africa in world affairs, Sri Venkateswara University, Tirupathi.	December 10, 1982.
Socio Economic Imperatives and the Christian Response	Colloquium on Christian Perspectives on Contemporary Issues, Institute for Development Education, Madras.	January 1983.
Cooperation for Literacy among International/Intergovernmental and Nongovernmental Organisations	International Seminar, International Council for Adult Education & German Foundation for International Development, Berlin.	October 16-20, 1983.
Uni, Multi and Inter Disciplines in the Social Sciences in Developing Countries	World Social Science Development Committee, Cairo, Egypt.	October 1983.
Role of Technicians in the Indian Economy	Natchimuthu Polytechnic Silver Jubilee Souvenir, Pollachi.	October 11, 1983.
Some Facets of South South Cooperation	Item 3(B), Seminar on International Economic Cooperation, Rabindra Bharati University, Calcutta.	December 1983.
Role of Universities as Agents of Change	Seminar on Higher Education in the Eighties, India International Centre, New Delhi.	December 9-11, 1983.
Union State Relations in the Economic and Fiscal Areas	Seminar on Centre, State Relations of Tamil Nadu Academy of Political Sciences, Madras.	January 3-5, 1984.
Some Thoughts on Project Formulation and Appraisal of Water Supply and Sanitation	III South East Asia Regional Course, Anna University of Science and Technology, Madras.	February 1, 1984.
Economic Aspects of the Union Budget for 1984-85	Chartered Secretary, The Institute of Company Secretaries of India, New Delhi.	April 1984.
Doordarshan for Social Change	Silver Jubilee Celebrations Seminar, Doordarshan Kendra, Madras.	April 1984.
Educationists Tasks in the Seventh Plan	125th Anniversary of St. Xavier's College, Calcutta.	January 18, 1985.
Contribution of Decentralised Planning to Growth and Development	"Special Supplement to Economic Trends", Federation of Indian Chambers of Commerce and Industry, New Delhi.	February 1985.
Some Notes on the New Education Policy	National Seminar of Vice Chancellor, University of Madras, Madras.	October 11 & 12, 1985.
Financial Implications of The Ban on Arrack and Toddy in Tamil Nadu	State Seminar organised by the Minister of Excise, Madras.	March 1986.
Priorities in Kerala's Industrialisation	Cochin Chamber of Commerce & Industry, Cochin.	November 1987.

Seventh Plan Pointers	The Hindu's inaugural address on launching of Front Line., Madras	November 10, 1984.
Universities and the National Education Policy	National Conference of the Association of Indian Universities, Hyderabad.	December 1987
Natural Resource Environment	Seminar on "India: the Emerging Challenges", Institute for Social and Economic Change, Bangalore.	April 1988
The Travails of the Small Entrepreneur	National workshop on Employment Generation through Entrepreneur Development, Department of Science and Technology, New Delhi.	November 15, 1988
Some Notes on Tamil Nadu Economy - 1987-88	MIDS Monthly Seminar	January 27, 1989
Some Notes on Tamil Nadu Eighth Plan	State Planning Commission, Ezhilagham, Madras.	April 7, 1989
The Role and Functions of Central Cooperative Banks	Platinum Jubilee Publication of the Maharashtra State Cooperative Bank.	April 11, 1989
The Development Scenario	Strategic Seminar - International Institute for Educational Planning, Paris	June 19, 1989
Some comments on Tamil Nadu - An Economic Appraisal 1988	MIDS monthly Seminar	March 25th, 1990
Some comments on (Government of India's) Status Paper on Indian Railways	Symposium, Chola Sheraton, Madras 6.	March 1990
Some Comments on Tamil Nadu : An Economic Appraisal 1989	MIDS Monthly Seminar.	July 25, 1991
Fiscal Management in India: Issues and Options	Workshop on Fiscal Management in India, Indian Economic Association Trust, University of Madras, Madras.	July 22, 1991
Dr Kumarappa, Decentralisation and Decentralised Planning	National Seminar on the relevance of Dr.Kumarappa's Ideas Today, Khadi Bhavan Complex, Madras.	January 4 - 5, 1992
Some Notes on Fiscal Stability and Fiscal Consolidation	Workshop of the the Indian Economic Association Trust for Research and Development and Madras University School of Economics, Madras	January 9, 1992
Tamil Nadu - An Economic Appraisal 1990	MIDS Monthly Seminar, Madras.	July 22, 1992
Some Thoughts on the Universities and the state- Global experience and lesson for India	Seminar on Indian University System, Revitalisation and Reform, Centre for Administration Change, Rajasthan.	March 20, 1993

Lectures

Problem of Youth Employment in Asia and South Pacific	Commonwealth Asia - Pacific Regional Centre for Advanced Studies in Youth Work, Chandigarh.	February, 1976.
Some Thoughts on Higher Education in South Asia	Ramanathan Memorial Lecture, University of Sri Lanka, Jaffna Campus, Sri Lanka.	April 16, 1976.
Some Thoughts on Adam Smith's Doctrine of Division of Labour	Sir A Ramasamy Mudaliar Lecture, The University of Kerala, Trivandrum.	November 19, 1976.
Science in the Battle Against Poverty	First GujarMat Modi Memorial Lecture, Modi Science Foundation, Meerut.	December 10, 1976.
Some random thoughts on UNESCO's contribution to Educational Planning and Administration.	UNESCO XXX Anniversary Lecture, National Staff College for Educational Planners and Administrators, New Delhi.	March 22, 1977.
Human Resources and Human Relations	Endowment Lecture, Employees Federation of Southern India, Indian Indian Institute of Technology, Madras.	March 25, 1977.
Political Economy of Education	A lecture in the series, "Political Economy of Development" University of Rajasthan, Jaipur.	March 10, 1979.
Economics of Nonformal Education	R.L. Reddy Endowment Lecture, Sri Venkateswara University, Tirupathi.	March 16-17, 1979.
Economic Perspectives of the Eighties	A Lecture in the Series Science & Society, The Asiatic Society of Bombay.	November 20, 1980.
Problems of the Indian Economy	Menezes Braganza Memorial Lecture, Institute Menezes Braganza, Goa.	January 15, 1981.
Economics of Energy Use in Agriculture	Special lecture for the Platinum Jubilee of the Agricultural College and Research Institute, Coimbatore.	September 1981.
Poverty Let's Fight It	Sixth Juhanon Mar Thoma Memorial Lecture, Constitutional Club, New Delhi.	December 6, 1982.
Mid Term Review of the VI Plan	Institute of Development Planning and Studies, Vishakapatnam	June 1983.
Education's Pay Off	The Duhr Memorial Lecture, St.Xaviers College, Bombay.	September 23, 1983.
Higher Education : Its Problems Perspectives	The first Vice Chancellor: Professor P.S.Manisundaram Endowment Lecture on Education, Bharathidasan University, Tiruchirapalli.	February 6, 1984.
Labour in the Indian Economy	First Srikantan Nair Memorial Lecture, The Kerala Institute of Labour and Employment, Trivandrum.	July 25, 1984.
Education and the Labour Market	Dr. P.C.Pavate Memorial Lecture 1984, Karnataka University, Dharwar.	August 2, 1984.

Some thoughts on Agriculture in the Seventh Plan	XVII Lal Bahadur Shastri Memorial Lecture, Indian Agricultural Research Institute, New Delhi.	February 1985
Some Thoughts on Education in the Seventh Plan	The Madan Mohan Malaviya Lecture 1985, Banaras Hindu University, Banaras	March 13 & 14, 1985
The Resource Gap in the Seventh Plan	The Tenth T.T.Krishnamachari Memorial Lecture, T.T.K.Trust, Madras	March 7, 1985
Agricultural Development and Social Change	Sir William Mayer Endowment Lecture 1983-84, University of Madras, Madras	January 20-22, 1986
Some problems of the Public and Private Sector	C.C.Desai Memorial Lecture, Administrative Staff College of India, Hyderabad	February 5, 1986
Social Justice in India	The First JP Memorial Lecture Gandhian Institute of Studies, Banaras	November 15, 1986
Search for Value for money in Higher Education: implications for Administrators	The Conference on University Registrars and Administrators Taj Palace Hotel, New Delhi.	December 30, 1986
Women and the Labour Market	Seminar on the changing status of women in the present day India, Loreto College, Calcutta.	February 2, 1987
Of Plans, Planning and Beyond	Fifth C.D.Deshmukh Memorial Lecture India International Centre, New Delhi	January 14, 1988
Future of Public & Private Sectors in India	Endowment Lecture, Economic Committee, Andhra Pradesh, Hyderabad.	May 7, 1988
What is Development?	XIII Indian Social Science Congress, Indian Academy of Social Sciences, New Delhi.	November 17, 1988
Eighth Plan Perspectives	51st Kale Memorial Lecture, Gokhale Institute of Politics and Economics, Pune	April 20, 1989
Economics of Culture and Culture of Economics	Kulapati Dr.K.M.Munshi Memorial Oration, Bharatiya Vidya Bhavan, Cochin.	December 30, 1989
Synopsis of Lecture on Educational Futures	National Workshop on Futures Studies, Stella Maris College, Madras	December 19, 1989
Gandhi and the Indian Economy Today	Annual Gandhi Memorial Lecture, Gandhi Peace Foundation, New Delhi	January 30, 1992
Development and Growth in the Indian Economy	Inaugural Lecture, Indian Bank Endowment, Pondicherry University, Pondicherry.	February 1, 1992
The Gap in the Indian Economic Reforms Policy Today: Agriculture	Tamil Nadu Agricultural University Endowment Lecture in Agricultural Economics 1992, Coimbatore.	December 22, 1992
Some Aspects of the Economics of Road Transport	Sixth Ramasamy Reddy Endowment Lecture Highways Research Station, Madras	November 15, 1993



Recalling Malcolm The Institute Remembers



Various members of the Institute have sent in their memories of this or that aspect of what Malcolm had meant to them. In some ways, such scattered fragments will probably add up to a more complete picture of the man than may be available from more formally constructed histories of his life.

Recalling Malcolm

The Institute Remembers

Paul P. Appasamy (*Professor*)

WHAT is the measure of a man like Adiseshiah? During his lifetime he achieved what half a dozen different people would have accomplished collectively.

The "common thread" of his varied accomplishments was that he dared to be different - to challenge prevailing ideologies and conventional wisdom and introduce radical innovations into every institution with which he was associated.

It was, therefore, with much trepidation that I stepped into the Chairman's office on a hot day in August 1986 for an interview for the post of visiting fellow at the MIDS. Unlike the customary arrogance that one encounters in interviews with Indian administrators and managers I found him to be singularly gentle. He asked why I had chosen to return to India and embark on a research career in the social sciences.

The same gentleness characterised his interactions with the "younger" faculty - which I am sure most of my colleagues will acknowledge. He made every effort to encourage us and helped us launch our careers. Discussions with him were generally professional. He rarely ventured into personal matters except to enquire about mutual friends or acquaintances.

Whenever he wrote on subjects in which we had some competence, he would send us a draft for review and comments. His capacity to assimilate the comments was extraordinary. Unlike most researchers who are defensive about their work, I found him open, willing to accept and incorporate constructive criticisms and suggestions. The same approach was evident in his review of our papers. He would invariably say that he had "learnt" something. The hallmark of his greatness was his willingness to learn, even when past 80. He would never pontificate - a common tendency of those who claim to have acquired wisdom over the years.

But he was also impatient with mediocrity. The monthly seminar series which he nurtured over the years produced papers of uneven quality. Since the papers were written by individuals from different professions, he was generally tolerant of the written material and would try to "rescue" the discussions that followed with incisive comments. However, on one occasion when he was given a paper written by a well-known consultant, he took one look at it and dismissed it as "rubbish". Presumably, he expected a paper of much higher quality from a retired college professor. His refusal to attend that seminar was a significant departure, since he rarely missed a monthly seminar when he was in town.

Despite his interest in people and society, he worked by himself. He never used "research assistants" and did all the necessary reading himself. He wrote out lengthy

pieces in long hand, which only his long-suffering secretary, Celine, could understand! On a rare occasion when a substitute typed a letter, he frowned and asked, "Who typed this letter?" When the name of the individual was mentioned, his terse response was, "Fire her". He was regretfully informed that it was not possible to fire people who had crossed the probation period!

Adiseshiah believed that researchers must have the freedom to work unhindered by the shackles of bureaucracy if they are to be creative and productive. They must also be able to work independently if they choose to do so. Over the years, MIDS has developed an "individualistic" ethos which sets it apart from many other research institutes. The cost has been that the synergistic results of team work are often absent. On the other hand, the inter-personal frictions and intrigues which have destroyed many an institution have been minimised. Only time will tell if an institution anchored to securing the intellectual rights and privileges of the individual can survive. Adiseshiah's ideas and initiatives live on, although he is no longer with us.

Adiseshiah's punishing schedule finally took its toll. His health perceptibly declined in the last two years, but he was unrelenting in meeting his obligations - including writing the editorial published posthumously in the December issue of the *Bulletin*. The spirit indeed was willing, but the flesh was weak, and he went to his well-deserved rest on November 21, 1994. It was providential that he died "in harness" because he would not have taken kindly to a prolonged or protracted illness. It was indeed a rare privilege to have known even briefly a man who literally and figuratively stood taller than most of the people around him. As the American saying goes, "They don't make people like him any more".

S. John Berchmans (*Personal Assistant to Dr. Adiseshiah*)

ADISESHIAH, an internationally recognised economist and educationist, had many other fine inner qualities:

Once an educated man, who had difficulty in finding a suitable job, approached him for his help. When he found the person suitable for a particular position, he worked for it without any hesitation whatsoever. There are many instances of people who have similarly benefited from his assistance: one in Delhi, one in UNESCO, Paris, one in Japan, and so on. They are all well placed now.

He always regarded his staff at 'Sadhana' as one family. Not only did he provide them with shelter, he also allowed them to enjoy other facilities such as medical benefits, travel facilities, and the like. The staff worked as a single unit.

Some six years ago, when I fractured my left foot I was immediately attended to. I could walk only with the help of a stick. Without my asking for it, he bought a stick and

handed it over to me. How can I forget this small but great gesture of Adiseshiah - a life-long gift! And on all his birthdays, he used to cut a big cake, and himself distribute it to people gathered at 'Sadhana'.

And in his last days, from the November 16 to the morning of November 21, 1994, even though he was put on oxygen right through he was fully aware of what was happening around him, and insisted on obtaining a detailed account of events from each one of us. On the morning of Saturday, November 19, he enquired about all the family members of his staff, and we were able to observe the satisfaction in his face. The end was nearing, but he fought for his life every moment, up to the very last.

In short, Adiseshiah was never petty-minded. He was ready to help anyone, without any discrimination whatsoever, a rare quality. He was a universal man, a citizen of the world and rose above the confining considerations of caste, creed and religion.

V. Gangadharan (Driver) (as related to D. Jayaraj)

IN November 1984, I joined Adiseshiah's family as driver. At that time I did not know what kind of a person 'Ayya' was, except that he was aged. I had the opportunity of serving him till his death, except for a small break. During my service I found him to be extremely humane and affectionate. I thought that the following few incidents should be narrated, though there are many such, that reveal his affection, and caring for people.

One day 'Ammā' (Mrs. Elizabeth Adiseshiah) asked me to deliver some fish bought for their relative. There were two cars: an Ambassador and a Benz. One of the tyres of the Ambassador had a puncture. I tried to change it, but could not. So, I took the Benz and delivered the fish. On returning, I found that Ayya was very angry. He asked me why I had taken the Benz. I told him that one of the tyres of the Ambassador had a puncture. He did not give me time to explain further, but shouted at me "What kind of driver are you? Don't you even know how to change a punctured tyre?" I too lost my cool and told him, "You can come over here and see for yourself that I have tried. I unscrewed three of the four wheel nuts but as the fourth one was unyielding, I thought I should not waste time, for the fish would get spoilt and so I took the Benz". He walked off muttering to Amma, "Gangadharan is talking back at me". He did not allude to the matter again. He could have easily sacked me, for I had only served the family for a few months then.

Once I told him, "Ayya, I am going to my native place to get married". He gave me Rs 100 and told me that if I got married the Rs 100 would be his marriage gift, if not I should return Rs 50. I went to my native place and returned unmarried. In line with Ayya's deal, I gave him back the Rs 50. He said, "I don't want this, you keep it". After a few years when I got married he gave me Rs 1,000 as a gift and Rs 5,000 as a loan. At that time he told me "Gangadharan, once you repay me, you can bring your wife and

live with me in the house till you have a baby". As agreed, I repaid the loan, and on the same day he told me that I could bring home my wife. I told him, "Ayya, you had told me I could bring my wife and live with you in the house only till I have a baby, and my wife is already pregnant". He thought for a while and told me, "You bring your family and live in the house till you get one more baby". I am still living in Ayya's house with my wife and only child.

He was given to believing that drivers would make money while filling up the car. So, he always ensured that someone or other was with me while going to the bunk. One day we came to the Institute and the tank was empty. Ayya's P.A. was absent. He asked me to fetch the Programme Coordinator, and asked him to go with me to the bunk. When he saw him Ayya asked the Programme Coordinator to go with me and fill the petrol tank. I felt humiliated, and put down my feelings in a letter and handed it over to Ayya. He went through it, and at the beginning of the following month called me and handed over a certain sum for the month's expenditure on petrol. This practice continued till his death. This showed me that Ayya cared for the feelings of others.

There was a member of his domestic staff who was a somewhat simple person. He used to take money from Ayya's pocket, and even from the almirah. The money that he used to take would be given to a poor family that lived next door. Ayya once caught him in this act. Then, he called me and another person in the house, and told us that the man had been found stealing money. But, he himself pointed out, that this could not be termed stealing for the man was a kleptomaniac - a term which he explained to us with the help of a dictionary. He needed to be treated with sympathy, as he could not possibly be expected to survive outside his (Ayya's) house. From that day he never kept money with him in the house so as not to tempt the other person. The easiest thing to do, perhaps, would have been to sack him.

The most admirable thing about him was that he never scolded any of his staff in front of other staff members. He treated me and others not as servants but as members of one family. On his birthdays he used to distribute each one of us personally a piece of cake. He also used to discuss important matters with us. For example, when Ayya was offered governorship, he asked each one of us if he should take it up. Some of us advised him to do so. After a few days he called us in and told us that, there being so much corruption in politics, he had decided not to accept the governorship. I feel happy and proud about having served him over so long a time.

S. Janakarajan (Fellow)

THIS is the 18th year of my existence at MIDS. From the time I joined, in 1978, as a temporary research assistant I have had occasion to meet our founder-chairman (we refer to him affectionately as Malcolm or thatha) only twice. First, when the Institute

celebrated his 80th birthday; I went up to him and wished him a long, happy and healthy life. The reply was just a smile. Second, just three months before he breathed his last, when he interviewed me for a faculty position. One reason why I was reluctant to see him personally was that he was seen always to be busy, reading and writing, and he never encouraged any gossip or waste of time. But this never stopped me from observing Malcolm closely his manner of walking, talking, his majestic voice, his dhoti and green kurta, and his pet dogs, in particular Lulu. My memory is still fresh and goes back to the days when I had just joined the Institute in the year 1978.

I as a temporary research assistant, had the corner of the old seminar room, along with a lone Ph.D student (that was the working space given to us). It was just around that time that the Institute had been upgraded into a national Institute. Adiseshiah's office was next to the old seminar room, or just adjacent to our working space. Therefore, my routine in the Institute was to watch whatever happened inside and outside his office. Adiseshiah had a peon, Kumar, whose job was to pick up his stuff as soon as he arrived, and sit in front of his office for as long as he stayed there. I used to hear Adiseshiah often calling out in his very attractive bass voice: "Lulu" (his pet dog) or "booooy", which was how he referred to Kumar. Kumar would respond very promptly. But a few of us poisoned him asking him to protest against being called 'boy'. One fine morning, Kumar, in fact, picked up the courage to correct Adiseshiah when he was called 'booooy'. I first thought Kumar would be sacked, or at least warned. But the next day, unbelievably, I heard Adiseshiah calling him "Kumaar".

I also often used to hear Adiseshiah scolding Kumar for his allowing visitors into his office without an appointment. One day he was strictly warned not to do so. Kumar became upset, and started taking it out on the visitors. Adiseshiah was a Rajya Sabha member at that time. So, there would be a constant stream of visitors. Kumar was severely ruthless: I used to envy the privileges he enjoyed. He sent back several MLAs, MPs, IAS officers and others for the simple reason that they did not have an appointment with Adiseshiah. Such was the discipline he maintained, for he kept himself truly busy all through his life.

C.T.Kurien (*Professor Emeritus*)

I would like to recall a few instances from my early contacts with Adiseshiah that have a bearing on his style of functioning. I was closely associated with the activities of the newly-founded MIDS from the very inception in 1971. In May 1975, I received a letter from Adiseshiah asking me to meet him to discuss as he put it, "some personal and professional matters". When I met him he informed me about the discussions that were going on to reorganise MIDS as a national research centre within the framework of the ICSSR, and asked me if I would take up the directorship of the new Institute. Though I had made no life-time commitment to the Madras Christian College where I was working at

that time, I had never thought seriously about leaving the college either. Hence, I wanted time to think about Adiseshiah's offer. After I returned home and discussed the matter with my wife, I informed Adiseshiah that I would need a whole year to make up my mind. His response was: "So I expect to hear from you by May 1976" !

In August 1975, I was offered a two-year national fellowship by the UGC which gave me the opportunity to concentrate on research. I found it more satisfying than teaching and so was inclined to accept Adiseshiah's offer (which was also strongly endorsed by J.P.Naik, then Member-Secretary of the ICSSR). But I did not want to give up the fellowship and felt that it would not be proper to leave the college at the end of the fellowship period. So, in May 1976, I informed Adiseshiah that I would join the Institute but as a member of the faculty in 1978. Adiseshiah had, by this time, become the vice-chancellor of Madras University and arrangements were being made to restructure the MIDS as a national institute from 1977, and so I suggested that the proper thing would be to appoint some one else as director. This Adiseshiah did not accept. He said he would carry the burden of directorship in 1976-77, but suggested that I accept responsibility for restructuring the Institute from 1977-78 as director-designate and take up the directorship in July 1978.

I agreed to this arrangement. But in the second half of 1976 I had a confrontation with the police because of the stand I had taken against the Emergency regime. I reported this matter to Adiseshiah and told him that he should feel free to look for a "safer" person to direct the Institute if he thought it was necessary. To this he responded: "One of the trustees of the Institute has been arrested (M.S.Appa Rao) and the director-to-be has been warned. If they want to withhold (national) recognition to the Institute, let them. But there will be no change in my decisions. And, you do what you think is right."

After I made public my decision to leave MCC and to join MIDS, many people who claimed to know Adiseshiah well warned me that I would find it difficult to work with him as he would be "constantly breathing down your neck", as one of them put it. But I can say that during my 10 years as Director, he did not in any way interfere with my work, but was always willing to help me whenever I turned to him. I consider it a privilege and blessing that I had the opportunity to get to know him and work with him.

A.M.Nallagoundan (*Head, National Adult Education Evaluation Programme*)

OVER 25 years ago, I was in Paris for about 30 months doing post-doctoral research at Sorbonne University. My field of specialisation being Economics of Education, I used to visit the UNESCO office often. I did not have the good luck to come in contact with Adiseshiah, then Deputy Director-General of UNESCO. I returned to India in June 1970 and spent a number of months searching for employment. I came to know that Adiseshiah had started the MIDS. I wrote him a letter, enclosing my curriculum vitae and wondering

about my chances of working at the MIDS. I received a letter from him expressing his inability to take me, but assuring me that he would let me know if anything else came up. He became a member of the State Planning Commission and he informed me of the possibility of a job opening there. I joined the State Planning Commission as gazetted PA to Dr. Adiseshiah, and my desk was at the MIDS.

Adiseshiah, being interested in many subjects, used to pose a variety of problems in the course of writing his papers. I could not satisfy all his demands. One of the problems I worked on was a model for planning education in Tamil Nadu. Before completing it to our satisfaction, I received an offer to work as a consultant in the Union Planning Commission. I showed the letter to him, fearing that he would not relieve me. To my surprise, he was happy about the offer, and said I would be relieved. As I was leaving his office, he asked me to wait and gave me a piece of advice, the gist of which was that while I had an excellent understanding of Economics of Education (which at that point of time was a new field), I did not always reveal my knowledge of the subject. I should, accordingly, cultivate the art of selling my knowledge because nobody would make the effort of divining my competence which would adversely affect my prospects on the job market. I said I would try and overcome my inhibitions. He blessed me and I left him.

I joined Madras University in 1976 when Dr. Adiseshiah was Vice-Chancellor. He asked me to go to the Reserve Bank of India, Bombay, and to discuss with them the possibility of having a research programme on Economics of Education. The RBI gave a substantial sum for the programme. One day he called me to his office and informed me that I would be heading the Department of Economics, as Prof. S.C. Joseph was proceeding to the Tiruchi Post Graduate Centre as Director. I expressed the fear that I had a poor capacity for judging people, and that therefore Prof. Sankar would be a better choice for heading the Department. The Vice-Chancellor felt that Prof. Sankar had been out of India for a number of years and so was out of touch with the problems and pressures that are a feature of administration in this country. I told him that I would be coming to him for guidance often.

He once sent me a note suggesting the offer of admission to an M.Phil. candidate belonging to a disadvantaged community. As there were two other candidates belonging to the same community who had been ranked above this particular applicant, I told Dr. Adiseshiah that I would not comply with his suggestion. He reacted by saying "forget about it, I shall explain the matter to the candidate".

There was an understanding between a certain institution and the Economics Department that the institution's library would be made accessible to the students and teachers at the Department. Unfortunately, the head of the Institution at that time tended to retain valuable books in his room, thus practically denying our students access to these books. I brought this matter to the VC's attention, who called the person concerned and instructed him to make the books available within two days.

I was critical about the Madras University's policy of housing for its employees. I pleaded that teachers should be given priority and that the University should own the buildings and rent them out to its employees. Adiseshiah promised that he would take the necessary steps to provide quarters to teachers too, but unfortunately he did not continue as VC for the second term.

I have no reason to think that he was always and uniformly happy with my pattern of behaviour, but that did not prevent him from appreciating my sincerity and commitment to work.

S. Neelakantan (Director)

It was my good fortune to have served in MIDS when Prof. Adiseshiah was Chairman. In September 1990, two days after my first Governing Council meeting, he called me over the phone and asked for the minutes of the meeting. As I had been warned by Prof. C.T. Kurien that he would expect the Member-Secretary to give him the copy of the minutes soon after the meeting was over, I had already dictated the minutes. So I took the printout with me which needed a lot of revision. I gave it to him and said that I needed at least three more days to complete the revisions. With his characteristic smile, he told me that it would be better to complete the task as quickly as possible; otherwise it would only result in accumulation of past loads exacerbated by possible memory loss. I replied that I would not be able to accomplish my work at the furious pace at which he completed his tasks, but that I would strive to complete my tasks as early as possible, but at my own pace.

When I completed the revisions and sent him the minutes, they came back to me within two hours with his editing in his own long hand! He had corrected spelling and grammar mistakes, recast sentences to make them more effective and deleted material that was unnecessary to minute. Every page showed the mark of his intense scrutiny. It was always a marvel to me how he could bring to bear his tremendous concentration on everything he did.

I kept him informed of all the important developments in the Institute. He was warm in his appreciation which gave me great encouragement. He respected the autonomy of the Director. As Chairman, he never interfered in the implementation of my administrative decisions. Even on the few occasions he disagreed with my decisions, he directly spoke to me giving his reasons. He patiently heard my point of view, and then left the final determination to me. I am sure that very few Directors of research institutes would have had the fortune to serve under such a liberal, non-interfering Chairman.

His willpower was enormous. In early 1993, a library attender informed me that he literally willed himself to climb the steep steps in the staircase leading to his room on the first floor. This was confirmed by some others. As my room was located on the ground

floor then, I offered to exchange rooms with him. His curt reply was a firm "No, thank you". But I persisted. He said the Director's room must be close to the office, or at least within observable distance of it, and that my proposed exchange would only lead to inefficiency in office work. He said that he would consider moving to the ground floor only if I could find accommodation for the office also near the Director's room. This could happen only in November 1993; and till then he drove his frail frame with his stout heart to climb to his room.

His equanimity in times of stress was really amazing. I was once a nervous witness to what in my opinion was a clash of titans in his room. He allowed the sudden emotional outburst among the contending participants to exhaust itself. Then he went on to conduct the business at hand with utmost cool. There was a certain detachment, difficult to capture in words, with which he conducted the proceedings of all meetings over which he presided.

As long as Adiseshiah was in his room, the various members of the fraternity in MIDS were orbiting along their separate paths, which were all held together by the invisible gravitational pull of his central magnetic personality. All was well as long as he was there in his room! That is a fragrant memory which I would cherish for ever.

S. Subramanian (Professor)

A very well-known economist who had also served as Secretary of State in the U.S. Administration during the Vietnam War once visited the Institute to speak on his subject of specialization. The talk was well attended, and there was a fairly sizeable contingent of foreign diplomatic personnel and corporate executives in the audience. To their great consternation, a member of the faculty asked the speaker, before he could begin on his talk, to share his views on the U.S. Armed Forces' war-time carpet-bombing of Vietnam. To the dismay and anger of many of those present in the hall, the speaker not only justified the bombing but expressed the view that not enough of it had been done. Many outraged members of the audience lent loud vocal expression to their anger, to the accompaniment of a somewhat pathetic display of servility toward the eminence arise by the well-dressed (and non-academic) section of the populace. Suddenly there was a walk-out by a large proportion of the audience. One's last recollection of the scene is that of Malcolm's voice rising above the din to inform the speaker that he (Malcolm) was 'in profound disagreement with everything' the speaker had said, but that since he had presumably come to talk of other matters, would he kindly get on with it? The next day, with some remorse over the possibility that they might have embarrassed Malcolm, a few of the more prominent protestors from among the faculty trooped into his office with a view to explaining their position. Malcolm dismissed them with a smile and the observation that he had had long experience of these 'hawks', as he put it, and

that there was nothing that needed explanation. How many in his position, one wonders, would have reacted with Malcolm's mixture of panache, scruple and good humour?

Recollections of Malcolm are inseparable from recollections of a succession of dogs of indeterminate breed and doubtful good looks which accompanied him to work. One of these dogs responded — when in the mood — to the name of Lulu. Poverty was an abiding feature of the Institute, and Lulu was quick to seize on the novel possibilities opened up by the Institute's gradual emergence into better times. On one of the earliest occasions on which those unspeakable luxuries — biscuits — were served up with coffee at a seminar chaired by Malcolm, Lulu frankly begged, without partisanship, from under the table. In a general environment of red faces, Lulu's aplomb was matched, if not surpassed, only by her master's: he got on with his business, and she with hers.

It can be confidently asserted that The Economic Times has never found better use, in terms of applied work in a research institution, than in Malcolm's hands. The number of people is legion that have been wordlessly and definitively informed that their period of useful communication with him had come to an end at the exact moment he chose to duck his head into the pages of The Economic Times: one moment you were addressing him, the next facing the limitless expanse of the columns detailing stock-market prices.

A. Vaidyanathan (Professor Emeritus)

AMONG Adiseshiah's many significant contributions as an academic, institution builder and public personage, I would like to focus on three: (1) his efforts to improve the quality of social science research; (2) his intense involvement with and leadership of action groups on a variety of public causes like literacy and science movements; and (3) his qualities as a leader and a builder of institutions.

He set up the MIDS not merely to serve as an isolated ivory tower of research. He wanted it to actively interact with the universities and colleges in the state, play an active role in helping Ph.D. scholars from all over the State, facilitate interaction among different branches of social scientists and actively promote wide, informed public discussion of important current issues of social significance.

The Ph.D. Scholars' meet, IDRM workshops, and the meeting of the heads of social science departments in southern universities organised by the MIDS were all conceived by him. They have proved to be original, creative and highly productive initiatives, providing a forum where Ph.D. scholars and guides from all over the State and scholars of different specialisations from all over the south could meet and discuss matters concerning both the substance and methodology of research. Adiseshiah not only conceived of

these workshops, but devoted a great deal of effort in planning and conducting them year after year. Except in the last two years, he never missed any of the workshops, and was always an active participant in the discussions. It was an inspiring experience to watch him.

Adiseshiah did not see social science research as a purely academic activity. He wanted research to be informed by social awareness and especially a concern for the conditions of the underprivileged. And he was keen that knowledge acquired in the process of research should be disseminated to the public and that researchers should be involved in public discussion on important issues. The importance he attached to the monthly seminars of the MIDS and the MIDS Bulletin reflected this. Again he took it upon himself to give the lead in deciding topics, identifying speakers, getting them to write papers and making sure that the seminars were held on schedule.

This, and editing the Bulletin for which he was the sole contributor of the notes on current economic events, took an enormous amount of effort. And yet he found the time and energy to devote to the work of the State Committee of Science and Technology (of which he was chairman), the State Planning Commission, the National Literacy Movement, and the Economic Affairs Group of the India International Centre, to mention but a few. In every one of these he played a very active role in mobilising people and resources, and strove hard to maintain a high quality of debate.

One wishes that those who worked closely with him had imbibed something of his interest and involvement in such a wide range of activities. Unfortunately, even within the MIDS community, Adiseshiah's regularity in attending all the workshops contrasted sharply with their thin attendance, some time no attendance on those occasions.

I also had the privilege of knowing Adiseshiah in building and managing institutions, having served on the Governing Council of the Centre for Development Studies (CDS) and the MIDS for several years with him in the chair. He conducted the proceedings in a democratic spirit, encouraging open, searching and critical discussion of major policy issues, and was able to steer carefully but firmly a consensus on even ticklish, controversial issues. While he preferred to let some problems be eroded by the passage of time, he did not hesitate to take strong positions whenever he felt that basic principles and proprieties were at risk.

As chairperson he tried to distance himself from the day-to-day functioning of the institutes which he regarded as the prerogative of the Director and the duly constituted internal committees of the institutions. Even when such matters were forced on him, he would give a patient hearing, but always make it a point to refer them to the Director. He did not always succeed in this. There is a limit to what an individual can do to change entrenched attitudes and values in society at large and the fragile sociology of our institutions. That in spite of this he adhered to certain principles and modes of functioning, and helped to establish healthy conventions, is a contribution worthy of admiration and praise!

கா. பழனி (காவலர்)

நாள்

கவி பாடும் கம்பன் அல்ல
உலக மறை வழங்கிய வள்ளுவனும் அல்ல
எழுத்துலக வேந்தனுமல்ல.

எனின் ஐயா திரு. மால்கம் ஆதிசேஷய்யாவின் மறைவு என்னை வாட்டுகின்றது. எழுதத் தூண்டுகின்றது. ஐயா அவர்களின் கள்ளமில்லா குழந்தைத்தனமான புன்சிரிப்பு கண்முன்னே நிற்கின்றது. ஒரு நாள் அவர் தன்னுடைய அறைதனில் அறிஞர்கள் சிலருடன் அளவளாவிக் கொண்டிருந்தார். அப்பொழுது என்னை அழைத்து பருக நீர் கேட்டார். நான் தண்ணீர் கொண்டு சென்று அவருக்குக் கொடுத்தேன். நீரை பெற்றுக் கொண்டபொழுது அவர் வதனத்தில் தோன்றிய புன்சிரிப்பு என் நெஞ்சை விட்டகல மறுக்கின்றது.

ஐயா

"தோன்றின் புகழொடு தேன்றுக அஃதிலார் தோன்றலின் தோன்றாமை நன்று" எனும் வள்ளுவன் வாக்கிற்கிணங்க தோன்றி, மாநிலம் போற்ற வாழ்ந்து, இன்று இறப்பிலும் எங்கள் அனைவரது நெஞ்சங்களிலும் அழியாது வாழ்கின்றார்.

காலத்தின் சிறு துளியையும் வீணாக்காமல் முதிர்ந்த வயதிலும் தேனீ போல் சுறுசுறுப்புடன் இயங்கி வந்தார். ஒரு நாள், ஐயா இவ்வுலகை விட்டு நீங்குவதற்கு நான்கு நாட்களுக்கு முன், மதியம் 1.30 மணியளவில் எனக்கு நெஞ்சு வலி ஏற்பட்டது. நெஞ்சு வலியால் நான் அவதியுறுவதை திரு. ஜான் சா. பெர்க்மன்ஸ் மற்றும் திரு. கங்காதரன் மூலம் கேள்வியுற்ற ஐயா, என்னை தன்னுடைய காரில் ஏற அவசரப்படுத்தினார். காரில் நான் அமர்ந்ததும் என்னை டாக்டர் வீட்டிற்கு கொண்டு சென்று விட்டு விட்டுப் பின்னரே தன் இல்லத்திற்குச் சென்றார். இத்தகைய இளகிய மனம் படைத்த ஐயா அவர்கள் இரண்டு நாட்களில் மருத்துவ மனையில் சேர்க்கப்பட்டார் என அறிந்து மிகவும் வேதனைப்பட்டேன். அவருடைய இரக்க குணமும், குழந்தைச் சிரிப்பும், வெள்ளை உள்ளமும் பின்வரும் இரங்கற் பாவை எழுதத்தூண்டியது.

எங்கெங்கோ தேடுகின்றேன் எங்களைய்யா !
கண்மூடி உறங்குவதேன் எங்களைய்யா !
கண் பாராயோ எழுந்திங்கு வந்திடாயோ !
ஆறுதல் கூறிடவே அமைதிதனை தந்திடவே - எங்களைய்யா !
மலிதரில் மாணிக்கமாய் பிறந்தவராம்
நடைமுறையில் எவியவராம் எங்களைய்யா !
அளவிலா பட்டங்கள் பெற்றவராம்
கணக்கில்லா படைப்புகளின் நாயகவராம் - எங்களைய்யா !
கல்விக்காக கண் செல்வதையே கந்தவராம்
காலி போற்ற வாழ்த்தவராம் - எங்களைய்யா !
ஞானவாங்கன் பல கண் வராம்
பலர் வாழ உழைத்தவராம் - எங்களைய்யா !

இயற்கை நியதிப்படி பூத உடல் நீத்தார் எங்கள் ஐயா எனினும் உங்கள் உள்ளங்களில் நீக்கமற நிறைந்து என்றும் வாழ்கின்றார்.

Malcolm S Adiseshiah in the estimation of his fellows Reminiscences and Tributes



Following on Dr. Adiseshiah's passing on November 21, 1994, many notices of condolence and appreciation were received from far and wide. We reproduce here, first, a series of tributes written by various persons who knew Adiseshiah in various capacities and subsequently, extracts from a selection of messages of condolence that reached us.

Malcolm S Adiseshiah in the estimation of his fellows Reminiscences and Tributes

P. Authikrishnaswamy

Project Officer

Women's Indian Association

Madras

THE history of mankind is also the history of man's desire to learn or know things. Dr. Adiseshiah ... accomplished his aim of a literacy renaissance by sowing the seed of literacy in the villages helping them make the transition to the modern.

He saw, and rightly so, that literacy should be the priority for social investment of human capital formation and nation building. He adopted new approaches to cure human society of the stigma of illiteracy.

For him literacy was a formula for nation development. He made literacy centres the sanctuary for the illiterates. By educating them, he made the illiterates socially acceptable and psychologically free. He was a social environment builder. His literacy programmes opened new vistas, and gave the have-nots hope and new horizons. Thanks to the literacy link he provided to the social welfare programmes, people can now think for themselves and their development and progress.

Dr. Barbara Harriss-White

University of Oxford

International Development Centre

Oxford

THE last time I met Adiseshiah, it took him a few seconds to remember me. That was the only indication he ever gave of his great age. Otherwise I have an abiding image of him that many others will share of a spare and simply-dressed person industriously occupied at his desk, with a background of sunshine streaming through the coconut palms outside the big window of his office in MIDS.

And what industry! The decades of disciplined and systematic collation of material on the Indian and Tamil Nadu economies, the willingness to offer reflections on practically the entire field of development - economic, social and cultural - represent achievements which will be impossible to match. Coming from a society where little daily work can be 'subcontracted', I often wondered about the domestic circumstances which enabled him both to focus and to spread his energy in this way. Behind Malcolm there was Elizabeth, and behind them both, a small team of other people which made possible the impact of his life's work.

The monuments to Adiseshiah's life can be looked for and found around the world. I first heard of him in 1972 through the great 'South Asianist', B.H. Farmer, as being a formative influence on the reconnaissance which led to Farmer's directing the first Green Revolution project in the then North Arcot district, on which I was employed from 1972 until 1977. I first met Adiseshiah at the 'Deceminar' - the December seminar in 1974 at St. John's College, Cambridge, where the initial results of that big project were disseminated. After a free afternoon when we drove him and others to see historical landmarks (not the Cambridge colleges, but the medieval ridge and furrow fields at Toff, the (just working but centuries old) Bourn windmill, the Black Death village at Crowe End, the Caxton Gibbet...) he quietly suggested I should consider writing a book about the field research on paddy and rice markets and on technical change in post-harvest production for his series on the Tamil Nadu economy. It was the very first time such a notion had entered my head. Two years' later, when the book was finished, others inserted the idea of a Ph.D. So in my case, the qualification which was to reveal and open doors I never imagined existed and to determine the rest of my working life came about in a topsy turvy way and is much due to Adiseshiah.

It is also appropriate that, after two decades, the Green Revolution project has come to lodge itself in the MIDS which he founded. Our last conversation recorded how pleased he was that this work would cement a link both between the past and the future and between academics in Oxford and Madras. Adiseshiah built this institution, but with what always seemed to be a light touch, by example rather than by order. It is more accurate to say that he enabled MIDS to be built. He created a place where self-motivated scholars could work at their projects with a minimum of direction or regulation. This kind of scholarly environment is now extremely rare anywhere in the world. It should not be, but it actually is, a privilege, even a luxury, and it will need to be fought for and defended in an era of development research increasingly funded in a highly directed, thematised, market-dominated way.

Goethe wrote that 'an old man forfeits one of the greatest of human rights: no longer is he judged by his peers'. No doubt that is the case, although life expectation increases by leaps and bounds unimaginable to Goethe. In the case of Adiseshiah, even when he was not an old man and merely an older man, it has never been a question of judgment, but of taking inspiration from elements of his personality and of his life that were relevant to one's own.

There was much. And I shall think of him with affection, gratitude and not a little awe, as I toil over the coming months through yards and yards of Bulletins, searching within their covers for the information on policy changes for a range of products over 20 years, which will help to explain the otherwise incomprehensible detail of an econometrician colleague's analysis of the evolution of lakhs of agricultural prices! This was a public spirit indeed!

Mr. Eric Prabhakar
Former Chief, Education Sector
Asia Division, UNESCO, Paris
Madras

He was my professor of economics at Madras MALCOLM's mother and mine were sisters. After my return to India, he Christian College, and my senior colleague at UNESCO. And now, after his appointed me a trustee and member of the MIDS governing council. death, I am, along with Dr. Kurien, joint executor of his will.

My lasting affection and eternal regard for my cousin will be more fully expressed in a biography which I propose to write. Here, I will confine myself to some aspects of Malcolm, the man, and Malcolm Adiseshiah, the international, without entering the career tracks in the MIDS, Madras University, the Rajaya Sabha and the Planning Commissions.

Even these two aspects that I have limited myself to, give me problems. It is just not possible to abridge within a few pages the essence of even the limited slices of a very full life of an extraordinarily gifted man. He brought to bear all the qualities, at the highest imaginable level of competence, of a teacher, scholar, innovator and administrator in every assignment entrusted to him.

I will only attempt to relate some incidents and narrate a few episodes which, though it may appear to some as a somewhat arbitrary selection, is the best I can do.

The first, and perhaps the biggest, influence on Adiseshiah's life was his mother. She came from a priestly Christian family, her ancestors occupying the vicarage of a leading Tamil Church in Madras, Zion Church, for four generations without a break. Besides the Nesamma as Malcolm's mother was called, was a powerful personality. Unique clerical lineage, the family was noted for an unbroken series of strong energy-dominant women. In fact, a research study is now underway in London by Eleanour Jackson, who had spent many years in India as a missionary, on the women of this family. Aunty Nesamma was the first woman Councillor of the Vellore Municipality, the founder President of the Vellore Ladies Club, the leader of the women's fellowship in the church, and many other things. She had only studied up to Senior Cambridge (high school), for her parents believed, perhaps seeing the predominant role the women were playing in the family, that too much education was not good for girls.

Aunty Nesamma, herself, held the view that early childhood education was best rendered by the mother, and she taught all her five children till they were ten. Her children grew-up highly accomplished and well-educated, four of them obtaining doctorates: William, the eldest, in philosophy at Cambridge; Malcolm in economics, at the London School of Economics; Padmini in education; and Noble in medicine.

Malcolm showed an unusual intentness in school, an ability to immerse himself completely in his studies. That trait he carried right through his life which brought with it outstanding results at every step of his career. Two double promotions saw him leaving

school at the awkward age of 13. He went on to Loyola College in Madras and there, as his classmate, the former president, Mr. R.Venkatraman said, at the December 1994 memorial meeting: "Malcolm was dubbed a book-worm, as all top-of-the-class are prone to be labelled". After Loyola College, Malcolm obtained a lectureship in St.Pauls' College, Calcutta, in 1931 for five years.

In 1936, Malcolm entered the London School of Economics for his doctorate. His meagre savings forced him to live on five pound's a month and one pound as rent for an unused attic in the London YMCA; one for stationery and toiletries, and three for his food which consisted of a bun and a glass of milk for breakfast, bread for lunch, and a shilling for a packet of fish and chips for dinner. By sheer perseverance with the authorities, he got a part-time job, in his second year, looking into the welfare of Indian students in London. That eased the financial stringency a bit. It also developed, early in his life, the care for students.

Malcolm returned to India in 1940 and took up his duties as professor and head of the department of economics at Loyola College. Fresh from Cambridge, Malcolm introduced Keynesian economics, among the first to do so in India. The first batch of economics honour students was taught the dazzling new theory, the study of the determinants of national income. Macro-economics was a focus of his teachings and the intellects of a future generation were trained and formed on Keynes' General Theory of Employment, Interest and Money. But the young professor did not neglect the classical study of micro-economics, the individual consumer and the individual producer interacting in product and service markets, the determination of price by the interaction of demand and supply, and the factors that make up demand and supply.

He took great pains, in fact obtained considerable pleasure and satisfaction, in finding examples in the rural areas to illustrate these economic theories he was expounding in the classroom. He taught his students the importance of the agricultural sector, that economic development in a country like India centred around the agricultural sector, and that industrialisation cannot proceed without a break from subsistence farming. He would get into a pair of baggy khaki shorts and set out with his students to the villages around the college and as he wrote: "... where we worked out the economics of hand-pound rice, hand-made paper, handloomed textiles, crop rotation and rural credit ...". There were raised eyebrows among the senior faculty on such constraints on academic standards. But nothing could keep Malcolm away from activism. The extra spark in him made him as a doer and a thinker.

Another noteworthy feature of his professorship was the use of the seminar methodology of learning. He broke out of the prevalent lecture mould where the students sat through quietly, jotting down notes and ventriloquising when called upon to do so. In his seminars, the students became alive, interacting with one another, and questioning the methods of inference the economic theorists are so fond of using. These seminars

culminated in a dinner once a month hosted by Adiseshiah, at his home, for the final year students, with a distinguished economist leading the discussion on a selected theme. The economics honour students were the envy of all in the campus. Wrote G.Jagathpathi, who was in that first batch and topped the University and who also was in the first, 1948, batch of the Indian Administrative Service and who subsequently retired as Chief Secretary to the Madhya Pradesh Government²: "In this dawn of a new age in economic thought, to the infectious enthusiasm and the intellectual vigour that this great teacher invested his teaching with, put halos even around his students..."

Another ex-student wrote in The Hindu on December 1, 1994 after Adiseshiah's death: "Tall and slim, straight as a ramrod, he then looked more like a post-graduate student than a professor. Dr.Adiseshiah was essentially a social activist even in those days. He started the Rural Service League and used to lead his students to the village nearby". If the final judgment is the results in the terminal examination, then Adiseshiah was an outstandingly successful professor. All three cohorts of his economic honours students brought in top results in Madras University.

Malcolm had married Helen Paranjoti in the early 1930s. In 1946, his marriage fell apart. Helen had borne a girl in her likeness and a boy who showed, at an early age, that he was heir to his father's intellect. But she had gone ponderously overweight due, I think, to a thyroid problem. It made her irritable and overbearing, more as a defensive measure, in her relationship with her husband, who was growing handsomer all the time. The inevitable happened: Malcolm fell in love with Elizabeth Pothen who was then the Professor of History at the Madras Women's Christian College. The separation was bitter and prolonged, with the annulment coming through only ten years later in 1956. Helen proceeded to England with the two children, where she became a senior lecturer in the Teachers' Training college near Cambridge University.

Malcolm did not allow these upheavals in his personal life to affect his work. His energy and splendid talents led him to the highest ranks in international organisations. The London Times obituary notice mentioned: "He launched more than a hundred projects aimed at enhancing literacy and economic development in the developing countries. He retired as Deputy Director General of UNESCO in 1970..."

After an interim assignment as Associate General Secretary of the World University Service in Geneva in 1946-48, Malcolm joined UNESCO. The former president, S.Radhakrishnan, knew the Adiseshiahs for he got his first philosophy degree at Voorehees College, Vellore, studying under Malcolm's father. It was on Radhakrishnan's recommendation that Sir Julian Huxley, the first UNESCO Director-General invited Malcolm to join the organisation. And, now, it is Radhakrishnan's son, Dr.Sarvepalli Gopal, who has become the MIDS Chairman after Malcolm. But it is no coincidence, for Malcolm specifically wanted it this way.

1. "Let my country awake", Malcolm Adiseshiah, UNESCO - 1970

2. *Economy, Society and Development*, Sage Publication, 1991.

There are in the UNESCO archives 118 files of Malcolm's and even by a rough estimate they have about 48,000 pages. I will record briefly two of his major areas of work at UNESCO: First, his pioneering work of launching and developing technical assistance projects in the Third World; and second his eight-year spell as the Deputy Director General.

The United Nations General Assembly, at its fourth session in November 1949, authorised the Secretary General to open a special account to receive voluntary contributions of member states, for the funding of the expanded programme of technical assistance for underdeveloped countries. It was a momentous resolution and opened a completely new vista for the UN agencies. And, without a moment's delay, the UNESCO general conference in November 1949, approved the Organisation's participation in the expanded programme. In March 1950, a technical assistance section was established which quickly expanded to a department, with Adiseshiah as director. It was all that he had hoped for, from the beginning, and he entered his new assignment with joy and passion, and with the certain knowledge that it was his destiny to care for the poor.

Malcolm was authorised to represent the Director-General at the technical assistance board, set-up by the UN. He was given authority, which he fully exercised, to organise the new department and the procedures and methods of operation. He established area desks, corresponding to the UN geographical regions; an administrative division, and a report and information unit which, *inter alia*, produced periodically a technical assistance bulletin which served as a link between experts and provided governments an insight into the more interesting field activities. All unit chiefs reported directly to him and he trained them to understand and function on the basis that self-reliance was the basic purpose of technical assistance and that it should be done by building up the country's managerial, technical, administrative, and research capabilities.

All in UNESCO were made to understand and respect the authority of the recipient government, however poor or small, and its sovereign responsibility for implementing the technical assistance projects in its territory. The technical assistance department drew heavily on the professional competence in various departments of UNESCO for the benefit of the projects. The reflective, research-oriented, and normative work contained in the regular programme and the various experiences in other countries, selected after critical examination, were made available to developing countries.

As technical assistance activities grew in its spread and experience under Malcolm Adiseshiah's stewardship, it gave as much as it got to the regular programme. The intimate knowledge of developing member-states, which soon became the majority and whose needs were greater, brought more realism and relevance to UNESCO's programme, its approach, methods of work and its activities. Full technical support from the bureau of personnel and the exchange of persons service was obtained. A valuable roster of experts and dossiers of centres of excellence for fellowship placements were maintained. The visibility of the technical assistance programme, the immense needs of the developing

countries, and the scarcity of funds, all demanded high degree of returns. The excellent results achieved, in turn, resulted in considerable fund increases: the expanded programme grew to the much larger United Nations Development Programme and Adiseshiah, almost single-handedly obtained World Bank funds for educational development. The Banks were reluctant to get involved in the sensitive area of education; "brick and mortar is our kind of business" they said. But Adiseshiah convinced them that education was of decisive importance in attaining economic and social development. It was he, along with a World Bank Vice-President, who drafted the memorandum of understanding signed in 1964 by the UNESCO Director-General and the World Bank President.

Malcolm worked 10 hours a day, never a minute late to enter his office at nine in the morning, going home for lunch at 1.30 in the afternoon and never leaving the secretariat before 8 at night. His family knew full well these schedules and adjusted accordingly. Malcolm's father, a professor of philosophy and the first Indian principal of Voorehees College and a man of discipline and regularity of habits, visited his son for a stay of three months in Paris. The father must have his lunch at 12.30 by the clock and Malcolm an hour later. Both father and son preferred Indian food, which, in the Paris apartment, only Elizabeth could deliver. She had a problem on her hands. But she was a resourceful person, as she had to be dealing with such a meticulous man. So, when no one was around, she shifted the clock an hour back after breakfast and set it right after both had eaten and gone their respective ways. Elizabeth, known affectionately as Sanchu, kept a good home for Malcolm and left him completely undisturbed to pursue his work single-mindedly.

Malcolm had to be urged repeatedly, at least by two, the Director General and his senior emissary, to accept the highest non-elective post of Deputy Director General. For 12 years, he had been immersed in helping the Third World with specific projects: the universalisation of primary education in select areas, producing literary primers, methodologies and material designs for adult education, curriculum materials for primary schools, improvement of science education, and a hundred others. Many of them were not yet complete, some had just started and would take several years. Why, then, accept the elevation, a post which will only take him a step further away from ground realities that he had got to know so well over the last 12 years? His natural authority was not based on hierarchy but on missions accomplished, resourcefulness, enthusiasm and an uncommon mastery over the art of teaching. Ultimately, in 1962, he accepted the post of Deputy Director General, but with a tacit understanding that he will continue to have an over-all responsibility for technical assistance activities of the organisation.

The Regional Conferences of Ministers of Education, which he initiated, continued to be in his charge till the end. The first was in Karachi in 1960, and the next in Addis Ababa. They were policy and planning conferences of the developing countries of the region, at the highest level, and set the pattern for conferences in the Arab states, Latin America and the Caribbean. They were initially in the education sector but soon the

other sections of science, culture and communication followed. Thus, under Malcolm's vigorous directorship, programmes and projects of international cooperation and technical assistance grew, from US Dollar 3 million to Dollar 300 million in 1970, when he left. The Director-General, seeing that valuable knowledge will go with him, asked him in his last year, to review the Organisation's operational work. And, of course, Malcolm, despite his multifold activities as the Deputy Director-General, particularly in a general conference year, set about this special assignment with his usual unrelenting style, setting aside five days in the month, one for each sector and one day collecting the data and detailed findings and recommendations in his report to the Director General. Till the end, he remained the unquestioned authority on the operational programme of UNESCO.

UNESCO had grown dramatically from its original mandate for providing a common forum for intellectual exchange, for reestablishing the links, broken during the second World War, between scholars, mainly among the victorious European and American countries, to an Organisation with the added mission of assisting the Third World. It was clearly a dramatic development and so sweeping that it triggered a host of other actions which impinged upon and effected every one of its sectors, divisions and units. The effort required was large; people, money and time were needed. Most important, however, was the urgency for an organisation which permitted the most effective utilisation of these resources. The historical evidence is that UNESCO was fortunate to have the right persons at the helm. The Director General, Rene Maheu, and the Deputy Director-General, Malcolm, individually, were men of energy, hard work and creativity. And, in combination, they built UNESCO's competence to cover the multifarious functions without allowing compartmentalisation and rigid division of duties and authorities which tend to occur with time in any expanding organisational structure. They displayed a capacity to attract and retain the ablest staff, to energise them, and to orchestrate their capabilities into an efficient and coherent group. UNESCO was fortunate to have these two leaders, men of extraordinary management ability and intellectual prowess, who commanded the respect of the rich member states, the more numerous and more demanding poorer member states, and the international community.

But the strain told on the health of the Director-General. Rene Maheu was often ill during the later years of the 1960s and died soon after his retirement. His long absences from the Secretariat placed additional responsibilities on Malcolm and his work load increased considerably. And then, yet another pile of work was placed on him. The assistant director-general of education retired and, with the international civil service recruitment procedures being, and which continue to be, particularly for the senior positions, ponderously cumbersome and protracted, this key post remained vacant for long. A senior staff had to hold interim charge and Rene Maheu asked, who else but, Malcolm to take additional charge. The man was equal to the task and discharged them all in a masterly way. He maintained an enviable record of not taking a single day's sick leave in the 23 years he was with UNESCO.

His back to office mission reports were among the most valuable documents of UNESCO. They were the findings of a sympathetic international executive of the highest calibre, delving deeply, probing and exploring into the key factors of development in a country. The secretariat realised their value and used them for in-house meetings to promote a fuller and better response to the priorities of the member-states. Malcolm would write his report during the mission, working late at night, after a full day's visits and discussions, which would often end in a late official dinner. The report would be completed on the flight back to Paris and would be given in for typing on arrival at nine in the morning. His handwriting was never good. The dynamo inside him moved too fast to permit a fine manuscript. His two secretaries, an American lady and an English girl, were experts in deciphering his writing. But even they would come out blank sometimes, particularly when there was an air of turbulence on the flight. They would consult with me, for Malcolm would have gone on to other activities and could not be disturbed. The word would reveal itself when looked at in context, or when looked at in a different angle, even sometimes upside down. Come what may, the report would be produced and distributed on the following day, when, normally, a mission report was written only after fifteen days or more after return.

The Director-General was most perturbed to let him go in 1970 and did his best to persuade him to stay on for another two years, atleast, to coincide with the end of his own contractual term. When that failed, he obtained the sanction of the Executive Board to replace Adiseshiah with two Deputy Director-Generals.

Even after retirement, and though he had immediately embarked on a series of activities in India - institution building, higher education, economic research, and parliamentary work he continued to maintain strong links with UNESCO. Till the age of 80, he returned to Paris four times a year to attend to his substantive duties as president of the Governing Board of the International Institute for Educational Planning, a natural extension of his interest in planning as an economist, and as chairman of the jury for the selection of the international literacy prize winners, a continuation of his life-long interest in literacy and adult education, started from his early days in the Rural Service League of Madras Christian College. He would ask for the meetings to start on Monday mornings and would arrive from India a few hours earlier in time to check-in at the hotel and be in time for the meeting. In those days, the journey involved a flight from Madras to Bombay and transfer, late at night, to an international carrier to Paris. Till I retired in 1985, I would meet him and take him to Hotel Tourism for the jury meeting or Hotel Nikko for the IIEP board meeting (he had no use for big, five-star hotels). It took me ten years to persuade him to arrive in Paris on a Sunday, in order to get over the jet lag for the Monday meeting.

Dr. George Mathew
Director
Institute of Social Sciences
New Delhi

MALCOLM Adiseshiah has gone. I join his vast circle of friends and admirers in paying my humble tributes to that great soul who inspired generations of intellectuals and activists, not only in India but all over the world.

When I was a university student in Kerala I had heard of Prof. Adiseshiah. We associated him with the prestigious Madras Christian College and the Department of Economics, and as an eminent Indian working in a United Nations organisation.

My first encounter with him was at IIC in October 1985 when the Institute of Social Sciences organised its inaugural seminar on panchayati raj in Karnataka. There were four illustrious persons on the dais; S.K.Dey, Abdul Nazir Sab, D.T.Lakdawala and Malcolm Adiseshiah. He inaugurated that seminar and made a profound observation. It was a classic statement on a vexed problem. He was talking about the postponement of local bodies elections in India. I quote from his inaugural address:

"Tamil Nadu, for instance, has had no panchayat elections for the last 15 years, since 1971. In these 15 years, the Tamil Nadu government has put forward 20 reasons for the postponement of local elections. It announced election 20 times and postponed it as many times. The reasons given were: drought, flood, cyclone, villagers being busy with agricultural operations, revision of electoral rolls, delay in printing electoral rolls, lowering the age limit, reservations, court stay on reservations, appeals against those reservations in the Supreme Court, school examinations, student unrest, by-elections, mid-term elections, general elections, delimitation of wards, issue of identity cards to voters, and Census operations. In addition to these 18 reasons, we have now had four postponements".

This quotation since then, has been cited on numerous occasions whenever someone writes or speaks on the subject. In the same speech he asked a prophetic question: "Why is it that we cannot have a constitutional amendment which will make it obligatory for local elections to be held on time? Here, I add my plea that we should earnestly work for a Constitutional amendment to put panchayati raj elections on the same footing as Lok Sabha and State Assembly elections.

My image about him as merely an outstanding economist, changed, for I saw in Adiseshiah a scholar and an activist deeply concerned with the ordinary people in the villages and with the future of Indian society and polity.

The Institute in a modest way undertook the mandate he gave at the inaugural seminar and we rejoice that today we have panchayati raj as part of our Constitution.

On our first chairman Lakdawala's passing, we invited Adiseshiah to become the chairman of the Institute. He accepted it readily and guided us in our work till the end, when several such requests from bigger institutions he turned down.

In October 1994, I went to Madras to fix our Governing Body meeting during his November visit to Delhi. He did not like my suggestion. A man who meticulously plans his programmes, he wanted several month's notice if not a whole year's. He told me gently that his programme on November 11 and 12 were fully packed at IIC and with such short notice, his programmes could not be rearranged. He suggested February 18, 1995 for the next meeting. He said he did not travel to Delhi during winter because of delay in landing and taking off due to the fog.

As soon as I returned to Delhi, I got a message that Adiseshiah wanted to hold the Governing Body meeting on November 11 at 4 p.m. I was happy, but I didn't know that it was going to be his last meeting with us. He found it difficult to climb the stairs of our building; I helped him. He told me that next meeting should not be held here, I said we shall come to IIC. He agreed. At the November 11 meeting, he had brought with him Indian Express of November 10 and 11 from Madras with the news of the Tamil Nadu Government postponing the panchayati raj elections. He was visibly upset that Tamil Nadu had again postponed the local bodies elections for another year. His plea at the Governing Body meeting was that the Institute should do something about it. He called me again the next day - on November 12 after the mid-year review of Indian economy - to his side and gave me the Indian Express copies and repeated: "George, you must do something about it." It was the last meeting I had with him. Ironically, the newspaper had listed the chronology of the postponement of Madras Corporation elections, giving as many reasons as was mentioned by Adiseshiah in 1985.

Adiseshiah is not with us today. But his convictions, ideals will inspire us, at the Institute of Social Sciences, which he helped build into an institution of national stature.

Dr. P.S. George
Fellow
Centre for Development Studies
Thiruvananthapuram

I consider it a great privilege that I had an opportunity to work closely with Adiseshiah for about a decade of which about three and a half years were in a formal relationship as the CDS Director under his chairmanship. What impressed me most was his distinct personality, firm values, deep convictions and the rare courage to uphold his personal values. He was an institution builder with a vision and his actions were mainly influenced by considerations of long-term stability of the organisation, rather than creating unhealthy precedents for short-term gains or cheap popularity. He firmly believed that all members of an organisation should perform their roles within the framework of certain well-defined norms and that he should not interfere in the normal decision-making process beyond what is mandated. Instead of making broad generalisations on his personality, I consider it more appropriate to narrate a few instances, which in no way are intended to reflect on any other persons involved. I am also aware that these instances cannot be exhaustive enough to portray the personality of Adiseshiah.

Though I had some familiarity with Adiseshiah's contributions for a long time, my first personal contact with him was during the 1984 CDS Governing Body meeting. What impressed me most at this meeting was his remarkable ability to digest the agenda notes and to raise pertinent issues for discussion. It was quite obvious that he had come to the meeting after thorough preparation and even minor points did not escape his attention. As a member of the Governing Body, his was a total involvement in guiding the Centre's activities and he was never a silent witness to the proceedings.

In 1988, when Adiseshiah was the CDS Chairman, he had approved certain recommendations to relieve the then Director from major administrative responsibilities on account of health considerations. The Chairman had circulated his decision to the members of the Committee of Direction for ratification. In response to this, I did not question the propriety of his decision, but I had pointed out certain anomalies which could set a wrong precedent. Adiseshiah was quick to recognise the spirit of the suggestion and withdrew the proposal immediately.

Adiseshiah had a great persuasive ability. When the Governing Body decided to appoint me the Director, in 1989, he conveyed the news to me. I was quite reluctant to take up the position on account of various personal considerations, including a very lucrative offer from abroad. He tried to reason with me on all my arguments against taking up the position and it was his persuasive skills that convinced me that I should accept the offer. On another occasion a proposal had gone to the Committee of Direction, of which he was the Chairman, to relax certain provisions in the service rules. While all members felt that the relaxation should be granted in view of the substantial contributions of the beneficiary to the Centre, Adiseshiah insisted that it would be creating a wrong precedent. Even when he found out that all the other members were reluctant to withdraw the proposal, he was not willing to compromise on his position that the relaxation would be an unhealthy precedent. Therefore he persuaded the members to record the decision that the matter was left to the Chairman. The Chairman's subsequent decision was against relaxing the rules. Thus, he could live up to his convictions without forcing others to change their views.

As the Chairman of the Governing Body, there were numerous occasions to consider issues involving disciplinary matters. On all these occasions he insisted that an inquiry be conducted on the basis of natural justice before initiating any action. However, when the inquiry was complete and the competent authorities had decided on a course of action, he never allowed anyone to interfere with the process of implementing the decision. He expected that all those who were responsible for certain delegated administrative functions effectively performed their roles, and as Chairman he never interfered with the normal functions within the organisation. Once I participated in an evaluation process at the MIDS and when I mentioned the outcome, he indicated his concurrence with the recommendation, but hastened to add that he had not mentioned it before the meeting in order to avoid any indirect influence on our recommendation.

Adiseshiah was very particular in maintaining certain procedural norms in an organisation. He recognised that the chief executive should be aware of all activities of individuals. Once he learned that a certain member of the staff had sent out a communication to an external agency without the knowledge of the Director, he raised it at the Governing Body meeting and had it recorded in the minutes that all external communications involving formal commitments of the Centre should go in the name of the Director. Also, he maintained that any communication from the staff to the Governing Body should be routed through the Director. He strongly discouraged direct dealings with the staff without the knowledge of the director. Adiseshiah was also a good presiding officer. At meetings, he would provide an opportunity for everyone to express their views, keenly listen to the various observations, watch the timing and at the appropriate moment wind up the discussion with an excellent summation of the various points along with his assessment of the emerging consensus.

I had an opportunity to visit him in his office a few weeks before his demise. As I was entering his office I was embarrassed by his words of apology. While I was wondering about the reason for his apology, he explained that one of his personal communications to me was based on a wrong interpretation of certain statements and that this letter had caused me some embarrassment. I would have never mentioned it to him, but I was so overwhelmed by the fact that when he heard about it from someone else he had the greatness to offer his apologies even without my referring to it directly or indirectly.

Adiseshiah was quite prompt in acknowledging the letters addressed to him and to make quick decisions on matters involving his attention. I cannot remember a single occasion when I had to send him a reminder. Often he sent a reply on the very day of his receiving the letter.

In his demise I have lost a person with close personal association and warm feelings towards me whose memories I will cherish throughout my life.

Mr. Ioannis Antoniadis
Coordinator of Administration & Finance, Unesco
Paris

A good part of my professional life I worked under the exemplary leadership of Adiseshiah. I joined UNESCO in February 1963, as an assistant budget officer. The Bureau of the Budget then worked under Adiseshiah, who had become the Deputy Director-General. I worked under Adiseshiah, till I left for a field assignment, in 1972.

In July 1984, I was posted as administrator and secretary of the International Institute for Educational Planning (IIEP) Governing Board, an UNESCO institute. It was a great pleasure to once again be associated with Adiseshiah, who was the Governing Board chairman.

Adiseshiah has, consequently, been my teacher and a source of inspiration for a good part of my professional career and I admired:

- his commitment to humanity in general and to the well-being of all his compatriots in particular;
- his attachment, without limitation, to the principles and ideals of UNESCO;
- his authoritative advice, offered to all, and his views and opinions, particularly on the economies of developing countries, where he had an undisputed leadership;
- his humane approach to all staff, professional or otherwise, high or low; and his enormous capacity to work for long periods, without a break, and always to remain cool under pressure;

Adiseshiah's term of office as Governing Board Chairman ended on December 31, 1990. But twice after that he came to Paris and I had the privilege and the honour of meeting him. Adiseshiah will always be remembered with respect and appreciation.

Dr. Jacques Hallak

*Assistant Director-General and Director
IIEP, Paris*

ADISESHIAH was an exceptional man, an outstanding manager and a rare professional, who marked not only the history of India but in particular that of UNESCO.

I met him first in 1961, when he was Assistant Director-General for education. Despite his heavy administrative responsibilities, he regularly directed a monthly economics seminar to encourage the exchange of knowledge and ideas among colleagues of various units at the headquarters. At that time, I was attached to the French Ministry of Finance and he invited me to make a presentation on the scientific and research policy of France. From our first meeting, I was impressed by the alertness of his mind, by his ground-breaking ideas on the issues of education and economic development. He was a man of vision who always associated himself with the right side of issues at stake on the international scene. Not a man to follow fashions, but a man of conviction.

After his retirement from UNESCO, Adiseshiah continued to use his energies to tackle issues and questions of equity, to combat poverty and illiteracy, always aware of the priority needs of the underprivileged. He started a new "career" in India, entirely devoted to development issues. The MIDS became an important regional centre with both national, Asian and international concerns. I recall a most exciting international conference, convened by the MIDS, where, at the invitation of Adiseshiah, we discussed various strategies for addressing the problem of illiteracy, taking into account efficiency and equity concerns.

He also remained closely associated with the work of UNESCO and, in 1981, was elected Chairman of the Governing Board of the International Institute for Educational Planning (IIEP). I remember thinking that this was most fitting, as he could almost be termed one of the "founding fathers". The IIEP came into being in 1963 on the decision of the General Conference of UNESCO, and Adiseshiah was then Deputy Director-General of the organisation.

When I took charge as IIEP Director, I was proud and glad to have a man of his calibre as Chairman. At a critical time in the history of the IIEP, he defended the institute against all kinds of attacks and was instrumental in keeping it alive. He assisted enormously, both in ensuring that IIEP's priorities fitted with those of UNESCO and in establishing meaningful cooperation and understanding between IIEP and the education sector as a whole. His opening statements at each session of the Governing Board were always most inspiring and timely, setting the scene for the board's deliberations to go in the right vein. He led the board with vigour and precision, but knew how to express warmth and affection that was appreciated by all. In times of disagreement or conflict, he was always there to find the way to arrange things and reconcile divergencies.

Adiseshiah was a man from whom to take counsel, ready to pass on his views and opinions based on a lifetime of experience of mankind and events. He will continue to serve as an example to all those who, like myself, had the good fortune of working or being acquainted with him. Above all, the memory of Adiseshiah will remain alive at IIEP, the institute which for ten years he accepted to lead and guide as chairman of its Governing Board.

Dr. Karan Singh

*President
India International Centre
New Delhi*

ECONOMIST, educationist, administrator, a man with a meticulous mind and with tremendous dedication to whatever he took up, Adiseshiah made major contributions in many fields of activity in India and abroad, especially UNESCO. It is indeed difficult to fill the void left by his passing away.

In paying my tribute to Adiseshiah, I would like to recall our association of over three decades, largely through India International Centre of which I have been a life trustee since 1963 and president since 1992. Adiseshiah became a member in 1976, but his association with the Centre goes back to the early 1960s. The Centre had hosted a reception for him when he visited Delhi in 1961 in his capacity as Assistant Director-General of UNESCO. One of the earliest programmes organised by the Centre in 1962 was a lecture by him on the scope and activities of UNESCO. It was largely on account of his support that the Research Council for Cultural Studies, set up by the Centre in 1961, was recognised as an associated institution of UNESCO for its major project for mutual

appreciation of eastern and western cultural values. The research council undertook a number of important projects for UNESCO.

Adiseshiah was a tower of strength to the IIC - as a life trustee (since 1978), as the chairman of the standing finance committee, as chairman of a review committee (1980), but, most of all, as convenor of the Economic Affairs Group (EAG). He laboured tirelessly to make the activities of the economic affairs group socially relevant and useful to academics, the general public and policy-makers. Despite his advanced age he willingly undertook frequent visits to Delhi from Madras to preside over panel discussions, seminars and planning meetings of the EAG. Of all the activities of the group, the most important to his eyes was the mid-year review of the economy and the annual seminar at which it was presented and discussed. He prepared the mid-year review himself as a one-man effort year after year for over 15 years.

Adiseshiah was a man with clarity of vision, and commitment to the ideals he held dear. It was a pleasure and a valuable experience to work with him, and I would like to place on record my sense of personal loss at his passing.

Dr.L.Mishra,

*Principal Secretary to Orissa Government
Panchayat Raj Department
Bhubaneswar*

I have known Adiseshiah since the launching of the National Adult Education Programme (NAEP) on October 2, 1978. He was then Vice-Chancellor of Madras University, after his long stint with UNESCO.

That was the period when his name was synonymous with adult literacy movement. He had done so much at UNESCO to restore primacy and centrality to literacy at the international level. And, now, he lent a powerful support as the Vice-Chancellor to give the same primacy to literacy at the national level.

The Farmers Functional Literacy Project (FFLP) was introduced in 1967 to impart literacy, awareness and functionality to the farmers in the wake of the Green Revolution. This was followed in quick succession by Non-formal Education for Youth, Shramik Vidyapeeths, Functional Literacy Project (FLP), State Adult Education Project (SAEP), Mass Programme of Functional Literacy (MPFL), and so on.

These were, however, cosmetic changes and did not produce the desired result. After two decades of experimenting with one model of adult literacy after another (1967-87) when the country was desperately searching for an alternative, the National Literacy Mission was launched on November 5, 1988. It searched for an alternative agency and a strategy to create a countrywide churning for literacy through the Bharat Gyan Vigyan Samithi in August 1989.

That was indeed the beginning of a new era in the life of the National Literacy Mission. Adiseshiah, the 'Grand Old Man' of the international literacy movement lent his powerful leadership to this new upsurge as president of BGVS, a confluence of creative forces and energies in the true sense of the term.

There was no going back from this historic shift. From a government-sponsored, government-controlled programme, literacy came to acquire the status of a mass movement. Each one owned, each one contributed and each one participated in that movement.

Ernakulam district in Kerala achieved the status of total literacy on February 4, 1990. The same day, a total literacy campaign was launched for the whole of Kerala. And then followed in quick succession campaigns for total literacy in Pondicherry, Goa, Chittoor, Nellore, Midnapore, Burdwan, Bijapur, Dakshina Kannada, Sindhudurg, Wardha, Bhavnagar, Pudukottai, Pasumpon Muthuramalingam Thevar (PMT), Kamarajar, Ganjam, Sundargarh, Rourkela City, Panipat, Durga, Bilaspur, Raipur, Dongarapur Sikar, Saharsa, Madhubani and Majhepura and so on.

Adiseshiah participated in this new initiative, new venture and new upsurge both in his individual capacity and as BGVS President. He also chaired the UGC committee of functionaries to bring teachers and students of universities, colleges and schools numbering about 40 million to the mainstream of this movement. His statements at the launch of International Literacy Year at New Delhi on January 22, 1990; at the Conference of Vice-Chancellors organised by the then Planning Commission Deputy Chairman, and with involvement of the Prime Minister on March 7, 1990, and at the annual conference of voluntary organisations organised by the Tamil Nadu Board of Continuing Education put literacy at the centre of the national agenda of action. They were a source of inspiration and strength for all creative thinkers, writers, artists, literacy activists, NGOs and government functionaries alike.

Adiseshiah was a great institution builder. Since literacy and continuing education were the focus of his vision of nation building, he took pains to build up the Tamil Nadu Board for Continuing Education, which came to be recognised as the State Resource Centre and played a pioneering role in the field of material construction as well as training of literacy functionaries.

Few months before I left the National Literacy Mission as its Director-General, I had the rare opportunity and privilege and also the excitement and joy of being present at Adiseshiah's 83rd birthday, on April 18, 1992. A special commemoration function was held at the new office premises of the Tamil Nadu Board of Continuing Education with State Ministers, academicians, administrators, educationists and social activists attending. That was a special occasion and his statement in chaste Tamil stirred us all.

He set exemplary standards whether in setting the agenda for action or conducting a proceeding, whether as a visionary, conceptualiser, a planner or a critic. His mid-term reviews of the Plans came to be accepted as classics, comprehensive, objective,

unbiased and independent. A person of this stature, calibre, vision, imagination and perception is certainly a rarity.

Dr.M.V.Nadkarni

Professor

*Institute for Social and Economic Change
Bangalore*

ADISESHIAH, one of the most towering personalities in the field of education and research in social sciences in the country is no more. His absence will be felt by us for a long time to come. He had many endearing and impressive facets to his personality, but I will confine myself only to a few which appealed to me most.

He had a tremendous grasp of the Indian economy, an encyclopaedic knowledge. A huge variety of data and information was at the tip of his fingers which he kept updated till his last days. His prompt and timely mid-term reviews of Five Year Plans and also more frequent overviews of the economy bear an eloquent testimony to his panoramic vision and deep knowledge. The many books he edited carry a distinctive stamp of his own, revealing his command over enormous information and of his lucid analysis of it. From time to time he used to bring together experts on various aspects of the Indian economy in seminars and publish the papers prepared by them in edited volumes. The integrating framework behind them was all his own and, therefore, his edited books turned out to be immensely greater than the sum of the papers contained in them. The learned and insightful introductions he wrote for the books he edited constituted only one of the reasons for this. The overall perspective and leadership he contributed to them was also a major factor. He chose themes for the books he edited in areas which were important but in which relatively little work was done. They, thus, amounted to significant contributions.

The second thing which attracted me to him was his deep concern for environment. He was particularly pained by the fact that mainstream economics had ignored this for long. His analysis led to these conclusions: (a) the fact that economics was evolved at a time when natural resources in situ seemed abundant and underutilised; (b) preoccupation with the market; (c) fragmentation of knowledge into different disciplines; (d) obsession with economic growth of physical output; and (e) faith in the substitutability of natural resources by capital (Adiseshiah 1991:199-200). He contributed in his own way to stimulate economic research in environmental problems of India and edited a book on the theme with a moving introduction (Adiseshiah, 1987). He deplored the fact that economic research on environmental problems lagged behind government interest in India from the point of view of a concerned economist (Adiseshiah, 1991).

The third thing for which I admired Adiseshiah greatly was his humane and enthusiastic interest in promoting the research career of young scholars particularly those outside metropolitan centres. This involved mainly Ph D students and academics from

'moffusil' universities and colleges. He took personal interest in promoting research workshops for them on selected themes of research, and actively participated in them. He also brought other experts to meet them in such workshops. Having participated at these workshops at MIDS in the presence of Adiseshiah, I know how very productive they were to all concerned. It is so reassuring to find that MIDS has continued this tradition and has been contributing to improve the level of interaction among scholars and the level of social science research in Southern India. There could not be a greater tribute to him than to continue to follow his ideals and be inspired by them for committed and socially responsible work.

Dr. P G K Panikar

Former Director

*Centre for Development Studies
Thiruvananthapuram*

ADISESHIAH was a person of rare combination of scholarship, commitment to lofty idealism and upright principles, and leadership qualities. Asian economist, his range of interests was wide as exemplified by the list of his publications which covered diverse areas including economic theory (Some thoughts on Adam Smiths' Theory of Division of Labour (1976), Human Development (Let My Country Awake: Human Role in Development (1970), Shaping National Events: The Economy As Seen in Parliamentary Statements (1985), Foreign Trade (Role of Foreign Trade in Indian Economy (1986), Public Policy (Price Policy (1987), Tax Policy: Proposals for Direct Tax Reform (1987), etc. Adiseshiah's review of India's experience with the UN during the first four decades since its inception is a frank and unbiased assessment of the role of the IBRD and the IMF and the powerful interests influencing the functioning of these institutions. (Forty Years of Economic Development: UN Agencies and India (1987). See in particular pp 6-7, 13-14). Adiseshiah made valuable contributions as a member of Parliament (1978-84), as reflected in his observations on such a wide range of subjects as general economic scene, savings and investment, mid-term appraisal of the Five Year Plans, budget, etc.

Adiseshiah's involvement in the development of two leading academic institutions, the MIDS and the CDS in their formative stages, was of great help. Adiseshiah had been a source of inspiration for us working at the Centre ever since it was set up in 1970. He was formally associated with the Centre since 1980 as a member of the Governing Body from 1986 and its Chairman for six years until 1992. He gave fruitful leadership to the functioning of the Centre, without interfering in its day-to-day administration. It was during his chairmanship that the Centre entered into an agreement with the United Nations Fund for Population Activities and the Government of India for conducting an international training programme in Population and Development. This programme was aimed at training mid-career officers deputed by developing countries and formed part of the Global Programme of Training in population and development. Adiseshiah was keenly

interested in the academic activities of the centre, its teaching and research. He read all research output of the Centre and made frank and critical comments on them.

Dr. G.Parthasarathy

Director

Institute of Development and Planning Studies

Visakhapatnam

I had the good fortune of knowing Adiseshiah since the late 1960s. I was an invitee at the inter-disciplinary seminars organised on poverty. Adiseshiah chaired most of these sessions, and guided the deliberations. Even a stupid remark from the audience did not disturb him. On no occasion did he lose his temper. He listened to everyone with attention and at the end summarised every point of view. He was never aggressive in his presentation but gentle and persuasive. A unique characteristic of these meetings was that at the end the minutes were ready and were circulated among the participants. He was a disciplined academic who kept to the timings scrupulously. There was much to learn from his chairmanship of the meetings. In fact, I benefited very much and for all of us he was a model.

Adiseshiah was sensitive to the concerns of the poor. His interests in the subjects of poverty, primary education and health were not merely academic. He was a highly motivated person with a deep sense of commitment to the cause of the poor.

Yet another of his qualities which should be emulated by all academics was his ready response to whatever that was sent to him by younger colleagues for comments. He read with a great deal of care and his comments were always meaningful and encouraging. My experience in this regard just a few weeks before his demise, is worth quoting. I sent an evaluation report on the economic impact of women's thrift and credit societies in Cuddapah district, Andhra Pradesh, to Adiseshiah and several others, for comments and suggestions. The only person to respond was Adiseshiah. The reply was received within a fortnight of the despatch of my evaluation report. The generosity of Adiseshiah in commenting on a report of a younger colleague is unbounded. I present below the copy of the letter for the readers to judge for themselves Adiseshiah's personality, particularly his kindness to younger scholars.

July 6, 1994

Dear Mr.Parthasarathy,

I have received the IDPS report on Economic Impact of Woman's Thrift etc

I am in agreement with the analysis, and express particular appreciation of the tables in Chapter IV. I think that one of the indicators of quality of life is also the longevity of a person. I enjoyed reading this report and was enlightened by it

With regards,

Yours sincerely,

sd/-

Malcolm S Adiseshiah

The immediate response was followed by this letter, on July 16, 1994:

July 16, 1994

Dear Mr.Parthasarathy,

I have now read the report on the Economic Impact on Women's Thrift and Credit Societies in Cuddapah district. I am impressed with the statistical data that you have assembled and published in this report. The searching analysis of the thrift groups activities, the economic impact that they contribute to in a small way from the macro point of view, but in a big manner as far as the individual women are concerned are highlighted. One data that I would suggest you should add is the statistics of literacy/illiteracy of the members of the thrift societies.

The recommendations that you make in Chapter VIII are truly impressive, in particular paragraphs 56 & 57 are important and from my conversation with Mr.Hanumantha Rao last week about this report, are of wider applications not only to Andhra Pradesh but to other states. The only problem is that because of the language barrier there cannot be an inter-change between societies like this actual or potential, in different states.

Thank you for sending me a copy of this report from which I have learnt a great deal.

With regards,

Yours sincerely,

sd...

Malcolm S Adiseshiah

The letter again reflects his commitment to scholarship, to the cause of the poor, and his generosity to his younger colleagues. His modesty is reflected in the last sentence of the letter where in he says "I have learnt a great deal".

In Adiseshiah's demise, I have lost a well wisher and the academic community an inspiring personality with unbounded commitment to scholarship. May his soul rest in peace.

Dr. R.N.Poduval

Chairman

Centre for Research in Economic and Social Development

Madras

DR. MALCOLM Adiseshiah and I were contemporaries at the London School of Economics (LSE) in the late 1930s. He was senior to me both in age and experience as he had been a lecturer in a college in Calcutta before he joined the LSE for his Ph.D. whereas I had just taken the B.A. degree from Madras University. He had put in two years of research work at the LSE when I first met him. We used to meet occasionally for lunch at the LSE restaurant. He appeared to be a very serious student since he used to leave for the library soon after lunch to continue his work.

It was only in the 1940s when I was Professor of Economics at Annamalai University and he was Professor of Economics at Madras Christian College (MCC) that we renewed our friendship. We built up our academic contacts by his visiting Annamalai University to deliver the validictory address of the Economic Association and by his invitation to me to deliver four lectures at MCC. Dr.K.N.Raj was then his student at MCC.

At MCC, he followed the traditions of Prof. Gilbert Slater, the first Professor of economics at Madras University, who had impressed on the students that "the central object of the study of economics was the causes and remedies for Indian poverty which according to him can be achieved if the attention of the students was directed towards the study of particular villages". With dynamism he led his students to the villages to study their economy at first hand.

Apart from this contact, I used to meet him regularly at the annual conference of the Indian Economic Association. I was struck by his close attention to detail, he used to support his statements based on critical examination of data available.

Our academic life did not last long as he joined the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and I the Government of India in the Ministry of Food and Agriculture as Economic and Statistical Adviser. Even when I was in Delhi, I used to meet Dr.Adisesiah occasionally when he came to attend meetings of UNESCO and other bodies.

It was only after I retired from the Food and Agriculture Organisation (FAO) which I had joined after serving the Government of India, that I came into close contact with Dr.Adisesiah. He had by then retired from UNESCO and had established the Madras Institute of Development Studies (MIDS) of which he was Chairman.

Dr.Adisesiah welcomed my joining MIDS as Honorary Professor. When I took some time to join, he enquired why I was hesitating. Among his manifold activities at the MIDS, I would like to mention four: (a) the single-handed effort in bringing out the Mid-Term Review; (b) his activities at the India International Centre, New Delhi; (c) his editorship of the MIDS Bulletin; and (d) his participation in various seminars conducted by the MIDS.

Dr. Adisesiah took great pains in bringing out the Mid-Term Review, which covered the progress of the economy in the light of the implementation of the Five Year Plans. In the beginning, it was more descriptive than analytical, but later he began to analyse critically the data on which he was basing his conclusions. He was anxious to include in the review as much new information as he could lay his hands on. I remember that when my book, "Foodgrain Economy of Tamil Nadu", came out, he was glad he could base his observations on the development of the foodgrain economy on my study. The mid-term review, in a short time, came to be recognised as an authoritative appraisal of developments in the economy. When the planning process was downgraded with the adoption of economic reforms since 1990, he felt it was a setback as the economy still needed guidance in the allocation of resources. It was only when he expressed inability to continue the work of bringing out the Mid-Term Review annually that it was passed on to others.

Besides the work relating to the appraisal of the performance of the economy, Dr.Adisesiah also started the economic group at the India International Centre, New Delhi to discuss economic problems. Not only did he arrange the meetings, he also presided over them. He was always in touch with economists and those who had distinguished themselves in public life for discussions on subjects of topical interest. I recall his arranging a meeting on the 40th Anniversary of the UN at which those who had served in the various UN bodies were invited to participate. He had asked me to speak on the activities of the FAO, but as I was not informed about the meeting in time, I could not. He was sorry about this and said that if I had written out the text, he would include it in the volume to be published. The text of my speech was thus included in the book edited by him entitled Forty Years of Economic Development: UN Agencies and India. Not only did he have a great capacity for organisation, he also evoked considerable interest in the discussions. The book has been of great value in understanding the activities of the various agencies of the UN.

Adisesiah made it a point that MIDS brought out the Bulletin every month. He himself wrote nearly half its contents. He also used to insist that the MIDS conduct a seminar each month, the text and discussions of which were to appear in the Bulletin. Not only did this provide an opportunity to prepare papers for the seminar, it was also published in the Bulletin. The seminar papers provide a mine of information.

Adisesiah not only attended regularly the meetings and seminars conducted at the MIDS, he participated in the discussions. He used to prepare a paper on the report of the Economic Appraisal published by the Evaluation and Applied Research Department, Government of Tamil Nadu. I used to admire the thoroughness with which he studied the Economic Appraisal. He was critical that it did not come out in time as it was intended to provide the legislators information on economic developments in the State so that they could participate effectively in the Assembly. It was due to his persistent efforts that a better Economic Appraisal was coming out more or less in time.

When I sent him a copy of the Changes in the Cropping Pattern: A Case Study of South Arcot District, Tamil Nadu, brought out by the Centre for Research in Economic and Social Development (CRESD), he appreciated my step and informed me that he would get it reviewed in the Bulletin. This was done in time.

What I would like to cherish about Adisesiah is my long friendship with him, his infinite capacity to apply himself to various problems and his eminence as an economist.

Dr.K.N.Raj
Chairman
Centre for Development Studies
Thiruvananthapuram

ADISESHIAH was the one who introduced me to economics. That was over 50 years ago, in June 1941 to be exact. It was a time of great changes both in economic theory and in economic policy orientation.

For a young student, one immediate consequence was the wide gap in approach and outlook between those who received their training in the subject before 1940 and those who were being introduced to it from then on. The great majority of students registered at the time for the Honours course in Economics in the University of Madras faced no problem on this account, since the syllabus reflected very little of the ground-swell that was becoming evident elsewhere. But the students who were registered for the course at the Madras Christian College were not to get away so easily. The reason was that the teacher newly heading the Department of Economics was a young man, no more than 30; he had a glimpse of the ground-swell in the London School of Economics and understood its significance even if not all the finer technical points then under discussion of the new approach. It was Dr. Adiseshiah, and he alone, who made all the difference to us who were fortunate enough to be taught by him.

Adiseshiah's emphasis was more on method than on the form and content of the theory. His lectures largely focussed on the former (particularly on the essential features of the Keynesian method of analysis), though he also outlined in more detail the form and content of the new Keynesian theory and then left us to do our own reading for which he gave several references. Some of these references related to relatively new books that were not available in the college library. These, he said, were in his private collection and we could borrow them from him. Thus we also gained entry to his household and, in due course, got to know his family, particularly his young daughter who bore a strong resemblance to him.

There was another feature in his method of teaching. While acquainting us with Keynesian theory and its basic form and content, and stressing the macro-economic method underlying the theory, he took pains to introduce some of the recent innovations in the then largely neo-classical theories of value and distribution, such as contributions to the analysis of monopoly and imperfect competition associated with the names of Chamberlin and Joan Robinson. This was a relatively new way of teaching what used to be known then as 'Principles of Economics' based largely (if not wholly) on Alfred Marshall. Most of our teachers of the subject knew little more than what was covered by Marshall, though we were grateful enough to those who explained to us clearly the form and content of Marshallian analysis.

There was still another and, to my mind (judging by the impact it had on my thinking and subsequent interests) more important and very relevant feature of Dr. Adiseshiah's

teaching. From the outset, he exhorted us to visit villages in the neighbourhood of Tambaram (where the college was located) and try to understand how the common people in rural areas lived in India, the general levels of education among them, and not only their health conditions but how many children died when still in infancy and childhood. But there was then no institutional mechanism to guide and help students in identifying suitable villages for such exploration, or to help them gain a friendly welcome from the villagers and persuade them to respond to our questions without suspecting our motives.

For this, Adiseshiah had an ingenious solution. It was to start a Rural Service League in college and persuade students to take active part in it. In concrete terms, students were advised to go in groups of two or three to these villages, carrying with them a small first-aid kit with enough ointments, eyedrops, laxatives, and so on to gain entry to households and win the confidence of grandmothers! This unique approach proved, in no time, to be an 'Open Sesame'. In fact, long after I left MCC and, out of curiosity, went back to a village, I got a warm welcome, though it was now their turn - the villagers - to badger me with innumerable questions! Developing such emotional links was clearly a two-way-street — which those who now exhort us to integrate with rural people forget all too often.

Years later, when Adiseshiah took over as Vice-Chancellor of Madras University, I had the occasion to recall some of these early memories when he invited me to deliver a lecture on the occasion of the Sixtieth Anniversary Commemoration of the Department of Economics, Madras University. My lecture, delivered on November 15, 1976, was on "Village India and its Political Economy". I recalled the valuable contribution made to the Department by the first University Professor of Economics, Prof. Gilbert Slater, from the time he took charge of the Department in 1916. Prof. Slater took the earliest chance he could to visit a village, Iruvelipattu in South Arcot district, with the help of one of his students who came from that village. (The village had come to be so named in Tamil because it was situated between the Pennar river, which ran north of it about a mile and a half away, and a branch of the same river flowing by the side of it in the south. These two rivers were seen in the distant past by an imaginative mind as two fences (*iru veli*) protecting the village from the world beyond. The reason for Prof. Slater deciding to visit a village of this kind was, as he himself explained later, that he wanted students of economics to look upon the subject not as "a series of unintelligible theories to be learnt parrot fashion from Marshall's Principles" but as one which had "as its central object of study the causes and remedies for Indian poverty".

My later reference to all the villages on which Prof. Slater initiated studies through his students at the University aroused the interest of Adiseshiah (who had evidently not seen them or had forgotten them even if he had) as well as several others in the audience. This, I was glad to observe, led soon after to re-surveys of some of the 'Slater villages', a good number of them in the MIDS itself under the guidance of Adiseshiah.

From the last public lectures Adiseshiah gave, at the Sacred Heart College in Madras on September 8, 1994, it is obvious how much importance he later came to attach to

students of economics visiting villages, not for the limited purpose he had in mind in 1941 when he insisted on our visiting villages around Tambaram, but with more important and specific objectives in view. The text of this public lecture, published in the *MIDS Bulletin* in December 1994, offers ample evidence of this:

"When I was, for a brief period Vice-Chancellor of this (Madras) University, I arranged for all Boards of Studies in all disciplines to have the teachers and students test their theories and all their learning at the practical field level: the physics student, for instance, testing his knowledge of physics in the functioning and the repair of the agricultural farm implements in the village; the chemistry student applying his knowledge of chemistry in order to establish the chemistry of the soil on which the farmer is planting his crop; the biology student helping to strengthen the animal husbandry properties of the farmer as a means of raising his income; the commerce student in helping the village panchayat in keeping its books of account and balancing the income and expenditure; the economics student in identifying the people below the poverty line in the villages and helping them to rise above it, through various forms of self-employment, etc..."

This, he added was "part of the learning process for both the teacher and the taught".

Mr. Ramaswamy R. Iyer
Research Professor
Centre for Policy Research
New Delhi

MY relationship with Adiseshiah was essentially through the Economic Affairs Group (EAG). I had been familiar with his name for many years but it was only around 1986-87 that I met him in the forum of the EAG. I used to attend the panel discussions and seminars of the EAG fairly regularly and occasionally I was a panelist or speaker under the chairmanship of Adiseshiah. The acquaintance that began thus gradually evolved into a closer working relationship.

Some time in 1992, Adiseshiah desired that I become the Alternate Convener of the EAG and assist him in planning and organising its activities. He was preparing to scale down the extent of his involvement in the activities of the EAG and reduce his visits to Delhi. He also insisted that I undertake the preparation of the mid-year review of the economy for 1993-94.

I felt deeply honoured by these suggestions but pointed out that I was not an economist and might not be able to do justice to the tasks he was asking me to take on. However, he would not take 'no' for an answer, and so I accepted the responsibilities that he entrusted to me and have been trying to do my best within my limits. These responsibilities meant an increased closeness of association with Adiseshiah during the last couple of years. I cherish that as a privilege.

Adiseshiah was a rare human being. He had a remarkable clarity of mind and a capacity to get to the heart of the matter in any discussion. He was a great simplifier; he had no taste for excessive subtlety or sophistries of argument or philosophical debate, but would cut through these to what he regarded as essentials. His prime concern was with issues of equity, social justice and the alleviation of poverty; and, of course, as an educationist and a former Deputy Director-General of UNESCO he was very interested in issues relating to education and those which are now compendiously referred to as human resource development (HRD). He tended to test all policies on these touchstones. He was not a doctrinaire. He was neither an enthusiastic supporter of the new economic policies of the Government of India nor an ideological opponent of those policies, but tended to look at them pragmatically from the point of view of larger social and human concerns.

It was those concerns and convictions that lay behind his commitment to the EAG. Despite his age, he would willingly undertake a monthly visit to Delhi to preside over the Panel discussions and seminars of the EAG because he felt these served important purposes. Even after he declared his intentions of a gradual withdrawal, his participation in these activities did not diminish significantly. I am sure he regarded the time, energies and thought that he devoted to the work of the EAG a sacred duty, and as the most important contribution that he could make as an economist and as a teacher towards the promotion of a keener awareness and purposeful debates on vital social issues. The pedagogic - or shall I say, headmasterly - aspect of his personality was evident in the manner in which he conducted meetings. He was an extremely effective chairman with a strong sense of time and relevance. He had no hesitation in cutting short meandering speeches or interventions, and in doing so he could sometimes be quite sharp. However, any discomfiture that he caused in this manner was momentary and quickly forgotten because of his general wisdom and authority and his evident simplicity and goodwill.

He regarded the mid-year review of the economy as an extremely important undertaking - a kind of alternative, unofficial economic survey which the government might take into account usefully. For more than 15 years, he brought out the Mid-year Review through his own personal and single-handed efforts. It was only in 1991-92 that he passed on this responsibility to others. However, he continued to take keen interest in this exercise and was invariably in Delhi to preside over the seminar at which the review was presented. It was appropriate that his last appearance at the India International Centre was to preside, with his usual authority, over the mid-year review seminar on November 12, 1994.

The EAG now stands bereaved. We shall miss his guidance, his sage counsel, his prodding and chivvying and his occasional magisterial admonition. For a long time we shall be conscious of his earnest spirit hovering over the proceedings of the EAG. A great responsibility rests on those of us who are now concerned with the EAG, to keep it going.

in a purposeful manner, so as to earn an appreciative nod from that unseen chairman. That is the best tribute we can pay to his memory.

Mr. P. Sabanayagam
*Former Chief Secretary
Government of Madras
Madras*

PROFESSOR Malcolm Adiseshiah was one of the persons who made a significant contribution to the development of education in India. The Ministry of Education, and the Tamil Nadu Government looked up to him for guidance on education from the time he returned to India after his long tenure at UNESCO.

As Education Secretary, I worked with him on several committees. Be it school, college or university education he had a thorough grasp of the subject. He was not a mere academician. It is one thing to be learned, possessing knowledge, another being able to impart knowledge. The capacity to acknowledge and understand the level of comprehension of those taught to absorb knowledge is a rare attribute in teachers. The structure of the curriculum and the administrative infrastructure for ensuring reasonable success of the programme requires field experience and vision. All these qualities Adiseshiah possessed and they account for the soundness of his advice. Why go further to find out why he was sought after?

Special mention should be made of Adiseshiah's contribution to the formulation of the National Adult Education Programme (NAEP) launched in 1978-79. The Constitution declares that free compulsory education would be provided for all up to the age of 14 within a period of 10 years from the coming into force of the Constitution, that is, by 1960. Even after two decades thereafter this was not possible to achieve. The question therefore arose whether all those who had missed schooling should be allowed to remain illiterate and uneducated and it was felt by the then Prime Minister Morarji Desai that the Government had a moral duty to these adults and a scheme of education should be formulated for them. Thus came into being the NAEP.

The formulation of the programme was no easy task as it meant identifying adult groups according to their occupation, preparing appropriate learning material which would be easily comprehensible and useful in their occupation, recruiting suitable part-time teachers on nominal salaries, arranging suitable timings, accommodation and so on. Considering the millions of adults who would be covered by this programme and benefit by it, and the impact it would have on the social structure of society, Adiseshiah wholeheartedly welcomed the proposal and took active interest in drawing up the programme. His ideas and solutions to practical problems were indeed useful and praiseworthy. That the programme had been well-conceived and formulated could be judged by the success achieved in several States which implemented the scheme with interest and imagination. The credit for this is due in no small measure to Adiseshiah.

At the meetings of the Consultative Committee of Parliament members, he would deal only with broad questions of policy and not get lost in details. The level of discussion was maintained at a high level. Often the tone of the proceedings was set by him - an example for others to follow.

On Adiseshiah's personal attributes, the unanimous view was that he was totally dedicated to whatever responsibility he agreed to accept. He would attend meetings without fail and come fully prepared even if it meant going through voluminous papers and statistics. Every suggestion made, even by a junior functionary, would receive his serious consideration. A simple man with no airs or ego it was indeed a privilege and pleasure to work with him.

As a member and trustee of the MIDS Governing Council, I had the privilege of being associated with him. I must say that the prestige and strength attained by the MIDS for its development studies is due not only to the stature of Adiseshiah, but also to the band of able academicians he was able to gather around him and the manner in which, while giving freedom to them, he was able to enthuse them to achieve and maintain the high quality and standard of academic work. There need be no doubt that his ideas and his spirit will continue to be emulated by all those in MIDS.

Dr. B. Sarweswara Rao
*Chairman
Institute for Planning and Development Studies
Visakhapatnam*

It was my good fortune to come into contact with Adiseshiah in the early 1970s. After coming to know about my role as a teacher of economics in Andhra University, he wanted me to be associated actively with the MIDS' programmes. It was the period when he was trying to share his ideas with some senior economists and social science teachers in the South Indian universities regarding the need and approach for strengthening teaching and research in the social science faculties. His ambition was to develop the MIDS, which he established with his own and Mrs. Elizabeth Adiseshiah's munificence, not only as a major research institute outside the framework of universities, but also as a forum for the above purpose, through organisation of research methodology workshops for the training of young scholars, annual meetings of the heads of Social Science Departments for review of teaching and research problems, and inter-disciplinary seminars on major contemporary economic and social issues such as poverty, urbanisation and environment. His remarkable success in these directions in a short period of time revealed several fascinating facets of his personality. I recall with pleasure my first association with him in the task of evaluating the performance potential of the social science departments in the Andhra University including Business Management and Law. The distinguished committee set up for this purpose by Dr. L. Bullayya, the then Vice-Chancellor, included

Dr. Adiseshiah as Chairman, and great stalwarts like Dr. K.N. Raj, Dr. M.N. Srinivas and Dr. Singhvi. I was Member-Secretary. Dr. Adiseshiah's initial approach to this task was to know to what extent the performance of the senior members of the departments assessed in quantitative terms (number of papers published, number of research students guided, number of seminars attended, and so on) reflected quality and excellence. It was interesting to find that some of the teachers wanted these indicators to be the deciding factor in evaluation. It was, of course, clear that quality and excellence were essentially matters of judgement by the distinguished experts. It was during this period I came to know about Dr. Adiseshiah's academic interests and the wide range of his knowledge of social sciences.

Soon after my retirement in 1975, Dr. Adiseshiah offered me a fellowship to complete my study on poverty and inequalities in a developed district. The study was later published by him with his valuable introduction. He also invited me to share the responsibility for organising a series of annual seminars on inter-disciplinary approach and perspectives on poverty. As requested by him, Dr. Deshpande and myself edited the papers and proceedings of these seminars and I prepared a comprehensive summary of the discussions on the papers. MIDS brought out the volume under the title Inter-Disciplinary Approach to Poverty, which was widely welcomed and appreciated. These seminars were followed by similar seminars and workshops on other subjects of contemporary concern such as urbanisation and environment. I had the pleasure of participating in some of them which were for me an exciting and fruitful experience.

I wish to recall particularly the seminars/workshops held at Mysore and Bangalore on the status of social sciences and the problems of modernisation and Indianisation of syllabi in the social sciences, focussing attention on each social science, its conceptual framework and methodological concerns, and the relevance of theory for public policy. I still recall vividly the enlightening debates on these issues with the participation of eminent persons such as Dr. V.K.R.V. Rao, Dr. V. Kurien, Dr. Gopalasarana, Dr. Deshpande, Dr. Saberwal, Dr. Ram Reddy and Dr. Gupteswar, and Dr. Adiseshiah's significant interventions and his masterly summarising of the points emerging from the discussions.

In later years, whenever I met Adiseshiah at the MIDS, our conversation invariably focused on the subject of inter-disciplinary understanding and perspectives, and the impact of MIDS' efforts to promote these values in the social science faculties in South Indian universities. He was not sure about the impact; to me, his disappointment was evident. Adiseshiah believed that the value of the social sciences, including history and philosophy, would be greatly enhanced if there was adequate interaction among them. He was conscious of the complexities and the pitfalls in developing these disciplines relevant for policy-making in the Indian context. However, the way he tried to develop the MIDS as an institution worthy of this purpose, and the way he edited and brought out the Bulletin for more than two decades - with a sense of total commitment - gave ample evidence of his concern and hope.

One of the most remarkable features of Adiseshiah's character and style of working is he always found time, despite his preoccupations as an economist, educationist, social activist, and guide and philosopher for several organisations in the country, to read carefully and comment on research studies sent to him by scholars and teachers.

I should not fail to mention in this connection that Adiseshiah gave me a lot of encouragement in developing a small research institute in Visakhapatnam focussing on facilitating interaction between economics on the one hand and other social sciences as well as natural sciences, medicine, and engineering on the other, and on action research. The Institute of Development and Planning Studies (IDPS) appreciated his critical and helpful comments on several of its studies on themes such as rural-urban dichotomy, regional planning, management of slums, water management, women development through micro-credit and environmental quality and management.

Adiseshiah's life is a great example of dedication to the cause of scientific social enquiry and the use of social science knowledge for the reconstruction of society. He will always be remembered as an economist and educationist with a vision, and for his outstanding services to the development of social sciences in the universities and the research institutes.

Dr. N. Subba Reddy

Professor

*Centre for Economic and Social Change
Hyderabad*

ADISESHIAH distinguished himself as an educationist, economist and as one who held a very high position in UNESCO. More than anything, he will be remembered in academic circles for his drive to promote inter-disciplinarity and multiple methodological awareness among social scientists. The MIDS to which he made a magnificent contribution in material, organisational and intellectual terms, stands as the embodiment of his academic creed and life's mission.

As one who was a close witness to Adiseshiah's stewardship of Madras University (of which he was Vice-Chancellor during mid 1970s), this writer seeks to recount the dynamism he imparted to that institution, in particular, and the academic community in South India in general. When he assumed the vice-chancellorship, the Madras University's glory was isolated with small departments (with some exceptions) each manned usually by two teachers, one professor and a reader, sometimes even fewer, and exclusively oriented to doctoral research. It generally shunned the hustle and bustle of graduate students or pre-doctoral pupils.

In an act of daring heresy, as it were, Adiseshiah decided that every department should take up the plebian task of teaching master's level courses, in addition to the doctoral programmes. It meant more courses and more students necessitating, in turn,

more teachers. The sudden expansion of faculty positions was not expected to be looked upon favourably by the State administration. But the weight of his personality combined with the soundness of the argument that a university has the prime duty to teach and prepare cadres of students for the next step of research, convinced the University Grants Commission (UGC) to release immediately the funds necessary for the appointment of additional teachers without the formality of waiting for the next Plan period. If subsequently, it was to become a committed expenditure for the State, there was a time gap during which the latter reconciled itself to realities.

Another bold and a well-designed measure he took was the revision of pay scales of university teachers. The situation when Dr. Adiseshiah became Vice-Chancellor was that while all other universities had adopted the Fifth Plan scales, the teachers of Madras University and other Tamil Nadu universities were drawing only the previous scales as the State Government's concurrence was still awaited. Under Adiseshiah's leadership, Madras University advertised new posts offering Fifth Plan scales to make things comparable with other universities and attract talent. So the newly-appointed faculty began drawing salaries higher than those of the old guard, making it imperative for the Government to accept a general revision of scales in all the universities in Tamil Nadu.

Not only was new blood brought into the university faculty, there was thorough updating of courses. Adiseshiah used to send notes to Boards of Studies drawing attention to current relevancies and the applied possibilities of the subjects concerned. He started a number of new branches of learning with multi-disciplinary focus. The departments of Adult Education, Molecular Biology and Polymer Sciences are examples of this.

He introduced the semester system in all the institutions coming under the jurisdiction of the university, raising the tempo of work for both teachers and students. Alongside, he introduced examination reform, judiciously combining some new elements with the old. He saw the risks involved in total internal evaluation in the given social milieu with its narrow identities and personalised attitudes. At the same time he saw the merits of a teacher evaluating his own pupils. So he designed a system in which 40 per cent of the marks allotted to a student in a subject were based on continuous assessment by the teacher concerned (through assignments, seminars, internal tests and so on) and 60 per cent of the marks were based on semester-end tests which were subjected to double evaluation by internal as well as external examiners. He constituted a monitoring cell to oversee the working of the system and to apply correctives where there were wide disparities between the marks given by the internal and the external examiner. As a further innovation, a new format was adopted for the question papers, which combined three types of questions, the short (or objective type), the medium (concepts, etc) and the long (essay type). This proved to be a good model which a few other universities thought fit to adopt.

As an adjunct to the curriculum reform, he set up fora for internal discussion of academic issues and related administrative processes in the form of an inter-departmental council consisting of all the heads of departments and senior professors and a committee

of conveners of schools (of cognate disciplines). These bodies met regularly, the former once a month and the latter once a week, under the chairmanship of the Vice-Chancellor. All issues concerning curricula, organisational bottlenecks and individual problems of teachers were discussed, and decisions were taken after the various viewpoints were heard. The remarkable thing was that the Vice-Chancellor himself drafted the minutes and circulated them to all departments within 24 hours, urging follow-up action. He used to circulate to the departments the special reports (on academic issues) going before the Syndicate from the Vice-Chancellor's office, thus reflecting a greater concern for democratic ethos and wider internal consultation at different levels.

He introduced a system by which the headship of a department was to be rotated among the professors. The teacher's Association which formerly had led almost a clandestine existence, meeting outside the bounds of the university, was allowed to function openly and to hold its meetings within the campus. Sometimes the Vice-Chancellor himself was the chief guest at the Association's functions.

Working out an arrangement between the Indian Council for Social and Science Research (ICSSR) and the MIDS, he arranged bi-annual sessions where social scientists of different persuasions drawn from different universities and research institutes gathered to explore and learn different aspects of methodologies and the state-of-the-art germane to individual disciplines. Many professors of social sciences working in South Indian universities benefited from this exercise.

When the term of his vice-chancellorship ended, and he declared that he was not available for a second term, some questions loomed on the horizon. One was whether any successor would be able to carry on his legacy, maintaining the same momentum. The answer was clear. His mental and physical energies were equal to those of ten men. And no subsequent incumbent of the Vice-Chancellor's office could be expected to be the same. Another question was whether his reforms were not too advanced for the milieu in which they were grafted, and if so, whether they would endure. There were some who felt at that time that Adiseshiah was disturbing the placid waters of Madras University and violating some inviolable traditions.

Of course, in certain respects, he appeared much too advanced for the set-up in which he operated. But he was a man of the future with a mission to push things forward. The past, of course, has its own pull with its decelerating effect. Some of his reforms might have been laid aside subsequently as being too inconvenient or taxing to implement, but, in the final analysis, the clock of time cannot be wound back. Things will follow the course set by the man who had a rich vision of the future.

Rev. Sundar Clarke
Retired Bishop
Madras

ADISESHIAH was born on April 18, 1910 to Paul Varanasi Adiseshiah and Grace Nesamma Adiseshiah. He spent his childhood and school days in Vellore and at Voorhees College there. He was second among the five Adiseshiah children.

In Adiseshiah's life I would like to attach importance to the good disciplined parentage he had. This was a firm foundation for his great life. I would like to attach importance to this because in our family gatherings he would constantly reflect on his loving mother's firm Christian principles and his father's strong administration. Every Sunday the children had to spend time in devotion and spiritual reflection before lunch was served. His father was the first Indian Principal of Voorhees College and Adiseshiah had his schooling in Voorhees High School and initial college education at Voorhees College. His mother was a woman of extraordinary potential. She was an outstanding member of the Vellore Ladies Club and other women's organisations. A talented musician, she was the organist at Central Church, Vellore. Both his parents contributed much to Community life in Vellore and after Adiseshiah's retirement from the UNESCO came up the Adiseshiah Block in Voorhees College. Much of his disciplined way of life, upholding of values and the capacity to work hard came from his disciplined parentage.

Malcolm then moved to Loyola College, living in Zion Parsonage with the Clarkes. After a distinguished career in Loyola he came out with flying colours in the London School of Economics and earned a Ph.D in Economics. He had no difficulty in getting a professorship at the Madras Christian College. Here he had a profound academic and spiritual influence on students. He was a star figure there. He was many a student's hero. Before coming to MCC he taught in St. Paul's College, Calcutta.

His ability and capability knew no bounds. It appeared that he was climbing higher and higher in the ladder of life. He went to Geneva and joined the Staff of the World Student Christian Federation and later the Student Volunteer Service and was then called to serve the UNESCO.

His efficiency, skill, hard work and brilliance took him to the top of UNESCO, as Deputy Director-General and even as acting Director-General. To me, he was one of the greatest Indian Christians.

After retirement from UNESCO the Adiseshiahs settled in Madras a place they loved, and started the MIDS, as an educational trust to contribute to the economic development of Tamil Nadu and India, through research, documentation, publication of research monographs, organisation of seminars, workshops and conferences.

The Nunc Dimittis

This great man's life came to a quick end. He suffered a severe chest infection which resulted in the failure of his kidneys and heart and he breathed his last in the early

hours of November 21, 1994. It was a great life well lived and well ended. We thank God for Malcolm Sathianathan Adiseshiah.

Dr. M.S. Swaminathan
Chairman
M.S. Swaminathan Research Foundation
Madras

MY first contact with Adiseshiah was in 1949 when he wrote me a letter on behalf of UNESCO offering me a UNESCO-Netherlands Government Fellowship to study at the Agricultural University in Wageningen, Holland. I recall during those days any letter I wrote to him in relation to this fellowship was not only replied immediately but was full of meaningful and helpful suggestions on how I may be able to derive maximum benefit from study abroad. Since then I maintained contact with Adiseshiah in different ways. It is, however, only after 1989, when I shifted my residence to Madras, that my contacts with him grew in terms of frequency and depth of discussion. We worked together in the State Planning Commission during 1989-91 and I was inspired by his deep concern with poverty and unemployment issues. It is to these two issues that I want to make a brief reference in this paper.

Poverty

From the beginning of the first Five Year Plan, a major role of planned development has been the reduction in economic and gender inequality. Unfortunately, in both these areas we have been losing ground. According to the Planning Commission, there are as many people below the poverty line today as the entire population of India in 1950 when the First Plan was started. Similarly, in terms of sex ratio, there has been a gradual reduction in the number of females per thousand males. In the 1991 Census, the sex ratio was 927 females per thousand males. Adiseshiah was deeply concerned with and disturbed by such statistics. Why has our planning process failed to eliminate abject poverty and deprivation and enhance the status of women?

In 1980, when I was serving in the Union Planning Commission first as its Acting Deputy Chairman and later as member in charge of agriculture, rural development, education, health and science and technology, I introduced in the Sixth Plan a chapter on "Women and Development". I also wrote a sub-chapter under employment on "A New Deal for the Self-Employed". The other new feature of the Sixth Plan was a chapter on "Environment and Development". All these chapters had organic linkages in terms of field level action. The poor, and among them women, depend for several of their day to day needs on common property resources. For the poor, life was made harder by deforestation, environmental degradation, and non-availability of non-wood forest products as a result of an area being declared a national park or a protected area.

The basic underlying cause of poverty is the low economic value attached to the time poor spend at work. Their work is classified as 'unskilled' and the maximum income they can hope to get is the prescribed minimum wage. Most of our poverty alleviation programmes have been inspired by the scarcity manuals of the colonial days, which prescribed various forms of relief works to provide income to the poor. This beneficiary and patronage-oriented mindset should give way to a prosperity-generating outlook. Most of the new jobs will have to come from farm and agriculture-dependent non-farm occupations and should be designed to provide value addition to time.

We know that agricultural intensification can lessen pressure on forests. National and global food security systems can be sustained in the future only by producing more food, fuel wood, fodder, fibre and other commodities from less land, water and energy per unit of output. The Green Revolution in wheat and rice in India is best described as 'forest saving agriculture', since we will need over 60 million hectares of additional land to produce at the 1965 yield level the wheat and rice our farmers produce now. It is widely recognised that this process, now over 25 years old (the term 'Green Revolution' was coined in 1968 by Mr. William Gadd of the US Department of Agriculture), has led to the multiplication of various biotic and abiotic stresses. Ecologists would, therefore, recommend going back to old practices, unmindful of the fact that in the days when old practices were prevalent, widespread famines were common. For example, India, Pakistan and Bangladesh, which were then part of undivided British India had, in 1891, a total population of 281 million. Today, India alone has a population over 900 million. In 1892-93, famines claimed 10 million lives in India. During the past four decades there has been no serious famine, although chronic hunger or under-nutrition prevails.

Employment

Most of the new jobs will have to come from the agricultural and agro-industrial sectors in the rural areas. But where can we find markets for the commodities we produce, when in the rich countries farm protection is now out of hand? Subsidies double the income of farm families in the European Community. In Japan, twice as much of the farmers' money comes from the state as from the land. In Switzerland, 80 per cent of farmers' income comes from the Government. In the United States, farmers top up every dollar of their earnings with nearly 50 cents from the Government and consumers. In contrast, in the Third World, even the small amounts of input subsidy extended in the past to resource poor farm families are being withdrawn because of the debt servicing burden, and the conditionalities imposed when new loans are given. If trade, and not aid, should be the pattern of future relationships between rich and poor nations, there is need for coming to terms with the fact that a dent in the unemployment problem in the Third World can be made only by a radical rethinking of the farm policies of the industrialised nations. *If industrialised countries persist in maintaining both the technology and capital's driven advantages in industry and the subsidy's driven advantages in agriculture, the economic and ecological future of the developing world, where 80 per*

cent of the global population and most of the world's poor reside, will be dismal. This is an issue which merits serious consideration jointly by the leaders of both G-7 and G-15 nations as the basic decisions have to be taken at the political level before technocrats can suggest how such political decisions can be implemented at the country level. The World Trade Agreement does provide clauses for the reduction of subsidies in industrialised countries but it remains to be seen whether these will be implemented both in letter and spirit.

Sustainable Development

Adiseshiah frequently asked me about the environmental impact of the Green Revolution technology. This is because many environmentalists have considered that Green Revolution, in addition to creating social problems, is also environmentally undesirable. This is because farmers often tend to use excessive doses of mineral fertilisers and chemical pesticides particularly if prices of farm produce are attractive. Excessive use of fertilisers could cause groundwater pollution. Improper use of pesticides leads to the origin of pest-resistant insects, fungi and other pathogens. Green Revolution technologies aim to increase production by improving productivity per unit of land, water, time and capital. Such productivity improvement can be brought about in an environmentally sustainable manner. While further agricultural intensification will be ecologically disastrous for industrialised countries, a lack of intensification and diversification of farming will be socially disastrous for countries like India. In fact, experts like Lester Brown have predicted that India may have to import over 40 million tonnes of foodgrains by 2030. Importing food by a predominantly agricultural country like ours will be equivalent to importing unemployment. There is, therefore, no way for us except to produce more food and other agricultural commodities from less land and less water, using environmentally sustainable technologies.

It would be useful to find another term to indicate the negative consequences of excessive use of chemicals and over-exploitation of land and groundwater. I would like to refer to this phenomenon as 'greed revolution'. We should curb it both through legislation and education promote an environmentally sustainable and socially equitable Green Revolution. Failure to distinguish between these two phenomena unfortunately creates confusion in public mind and promotes wrong public action. This is equally true about the ongoing agitation against coastal aquaculture. Ecologically sustainable and socially equitable shrimp farming is certainly possible, but the attraction to make as much money as possible quickly leads to the adoption of "greed" rather than "green" technologies.

It is useful to remember what Mahatma Gandhi said: "Nature provides for everybody's need but not for everybody's greed." This principle also represented the personal philosophy of Adiseshiah. Of him it can be truly said: "His life is his message." He was the embodiment of humility, simplicity, personal and professional integrity and, above all, love and compassion for fellow human beings.

Dr. Vedagiri S. Shanmugasundaram
 Former Vice Chancellor
 Manonmaniam Sundaranar University
 Madras

THIS account of my personal recollections is given to the MIDS *Bulletin* in the making of which I was associated with for the entire period of the quarter century of its existence. I knew about Adiseshiah from my teachers Dr. B. V. Narayanaswami Naidu and Dr. R. Balakrishna, his contemporaries in Britain and India, and colleagues in the economics profession. During the 1950s. In the 1960s I invited Adiseshiah to give special lectures in the University of Madras and to attend the Golden Jubilee of the Indian Economic Association at Madras while he was in the UNESCO at Paris. From the time he arrived in Madras to the last days of his tireless service to the economics profession, I have known him as colleague, Vice-Chancellor and an eminent *persona grata* in Indian affairs. While I was working on a thematic study of economists of Asia, the MIDS was my habitat.

As a member of the first Advisory Board of MIDS, I helped Adiseshiah in many ways to set up the Institute. My closest associations with him were through the State Planning Commission (SPC), the University Planning Board and the Indian Economic Association. The State Planning Commission was set up by M. Karunanidhi soon after taking charge as Chief Minister. Between 1971-72 and 1973-74, 15 major task forces and committees were set up in the SPC. Adiseshiah headed the task force on education, and invited me to head a committee on collegiate education. In turn, in my task force on human resources for economic development, he served on its committees.

At the university level, Adiseshiah and I moved on to work in the University Planning Board set up by him soon after his taking over as Vice-Chancellor in 1975 and of which I was made Member-Director. The task was to prepare a perspective plan for the university. When I gave a massive two-volume report, Adiseshiah took it with him to the United Kingdom, worked on it during one of his several flights, helped in the preparation of a slim volume and had it adopted as the University Perspective Plan for 15 years up to the 1990s. Massive investment in faculty and resources for a university Institute of Economic Sciences was planned; what happened after Adiseshiah left in three years time, was the foundation of the Madras University School of Economics (MUSE) with UGC support, with myself as its first coordinator. The two departments of economics and econometrics (separated after Adiseshiah left) were to take up coordinatorship in turns.

Adiseshiah and I were deeply interested in the Indian Economic Association. A Rs. 1 lakh fund he created for the IEA Trust was operated by me and Adiseshiah in the last two decades as Life Trustees. He also made arrangements with the Indira Gandhi government to extend an invitation to hold the World Economic Congress in India in 1977; he had spoken to Prof. E. A. G. Robinson, President, International Economic Association and its editor, and several others including UNESCO based leaders, and deputed me to the Executive Committee of the International Economic Association at their World Congress in

Budapest in 1974. However, the wealth and affluence of Japan, headed by Prof. Tsuru tilted the balance in favour of that country, and Prof. Robinson gave us the consolation prize of an International Round Table on Employment Policy.

Wherever he served he was respected for his fitness and honoured for his devoted services. He was lofty in his appreciation, and appropriate in his tributes.

The city of Madras is poorer for the loss of great world citizens of the past decades. Hopes spring eternally from human minds. The least that the contemporary intellectuals of the city of Madras could do would be to document the strides which Indians made at home and abroad at the end of British raj, and in the last half a century of Indian independence. The next phase is not to measure up to Western or American standards, which was a task for our forebearers born in serfdom under foreign rule, but to develop uniquely Indian solutions for Indian problems. Adiseshiah was a spokesman of the voiceless, at home and abroad in Asia and Africa. May his inspiration guide us in his footprints.

Dr. Yasodha Shanmugasundaram
 Former Principal
 Ethiraj College
 Madras

IN this tribute I wish to highlight some of the important contributions Adiseshiah made to the intellectual and academic life of India, after his return to Madras. When the MIDS was founded, regular seminars were held by drawing from the "external economy" in terms of talents in the Economics Departments. The sharp focus on specific issues of the Tamil Nadu economy, was its distinguished feature. When Adiseshiah asked me to give a review of the Tamil Nadu economy, 1970-79, I was happy to work on that subject, and I am happier still that he followed it up with annual reviews. I had many opportunities to hear him and discuss subjects of mutual interest not only at the MIDS but at all conferences of the Indian Economic Association and other professional gatherings and meetings of educationists. Of them, his work for the creation of the women's university is a theme appropriate in which to pay my tributes.

Women's studies, women's university, and related matters are of concern to welfare economists, to which fold Adiseshiah belonged. When he was appointed to the committee to form a women's university his vision and purpose were clear. He made it a research body. There would be no affiliated colleges. It would bring together the experts in the field. It would not duplicate the work of other universities and his document is of great value. A remarkable quality of his public service is that he knew where to draw the line, and not to cross it. For over a decade he watched the performance of the Mother Teresa University, in terms of its land, buildings, location, staff, and many other facets. Having drawn a report for it, any other person would have been tempted to maintain continued interest in it or be concerned about what was happening to it. But this is not the role of a consultant. His work was over when the report was given. Adiseshiah was disciplined not

to interfere in the institutions he created or headed. This is a great quality which leaders in professional life could emulate.

His response to the needs of young scholars was generous. When the staff of the economics faculty of Ethiraj College, where I served for about a quarter century, wanted to bring out a Festschrift in my honour, many teachers and well wishers were requested to contribute articles to it. The earliest contribution to arrive was from Adiseshiah. And when the book was released, his article was in print, and we all missed his presence. He had given a foreword to the book: Tamil Nadu Economy: Some Selected Aspects, edited by me along with Mrs.R. Rajalakshmi and Dr.M. Bhuvaneswari (Emerald, 1991). He carefully read the book, and stated "the data brought together on the facets of the economy are fertile ground for empirical analysis...It represents many hours of hard work, close consultation, and inter-personal and professional discussions. It is a monument to the scholarly industry and integrity of the thirteen students of economics involved in this exercise", - what an appreciation from one of the great economists of our country. What I appreciate most is that we are called "students"; a good teacher is a life-time student.

During his vice chancellorship, he gave autonomous status to the largest number of institutions. He delinked the matriculation schools from the university, and rushed through many reforms. The university professors were not permitted to stand for elections or nomination to the syndicate. To compensate for this, he founded the "Inter-Departmental Council". Autonomous college required finances to organise boards of studies, academic councils and other facilities such as libraries and increased faculty strength. And student/teacher confidence in the fairness of their examination and other exercises are also crucial. In the long run such reforms will be remembered as major steps towards modernising higher education.

Recently, I wrote a book on *Women Employment in India*, and gave it to him for comments. He read it as usual with care and gave a list of comments for the next edition. And when I presided over a State Planning Commission seminar, and he gave a paper on "Rural Employment of Women in Tamil Nadu" he chose to sit with the audience and gave his typical comment "you are a strong chairman". Hard work and serious studies held a fascination for him.

My husband and I were frequent visitors to his house, and we had the rare privilege of dining with his family, though he kept his personal life quite apart from his professional. He counted us as his family friends. When he passed away, we lost a well wisher, not in the ordinary sense of superficial appreciation, but a worthy and thoughtful guide, and firm supporter for worthy causes. Totally free from jealousy, he wished for us the highest offices, and asked us to be prepared for it. His response to any professional call was spontaneous. With 80 years of worldwide reputation, his achievements rested lightly on his shoulders. He is a good role model for young economists to fashion a self-respecting, disciplined and glorious India of the future.

An Abstract of messages of condolence

INDIVIDUALS

Dr.P.C.Alexander, Governor of Maharashtra, Bombay

"Dr.Malcolm Adiseshiah was one of the greatest educationists and economists of the country. I had the privilege of knowing him closely and always admired his erudition and commitment to the service of the people. He personified... the ancient Indian virtues of simplicity and humility... Always humble and self-effacing, he made his friends feel proud of their friendship with him. His life was one dedicated to the cause of education. He gave his all for the great mission of educational reform and economic research. He was respected for his services to the promotion of education in developing countries through his long years of service as Deputy Director-General of the UNESCO..."

Mr.M V Arunachalam, Industrialist, Madras

"He was a good friend and I got to know him fairly intimately. I will miss him badly. It was only a few weeks before his death that we participated together in a seminar on "Industrial Relations in the Changed Environment" organised by the National Centre for Industrial Harmony of which he was President... He lived a full life and must have died a contented man..."

Mr.Bharat Ram, Industrialist, New Delhi

"I will always remember his sense of humour and seriousness of his study of economics."

Dr.Chandan Mukherjee, Director, Centre for Development Studies, Thiruvananthapuram

"Prof. Malcolm Adiseshiah, an outstanding educationist and a great humanist was a close friend and supporter of the centre and his capacity for hard and systematic work was a model worthy to be followed. His erudition is well known. Prof. Adiseshiah has served several institutions with distinction such as Madras Christian College, UNESCO, Madras University and as a member of the Rajya Sabha. As chairman and member of the Governing Body, he took interest not only in the overall progress of the institution but also in specific matters regarding the faculty and the staff. In his demise we have lost a strong pillar of strength; an elder statesman to whom we could look up to for advice..."

Dr.M.Channa Reddy, Governor of Tamil Nadu, Madras

"He was an eminent educationist and economist. He occupied various posts like the Vice-Chancellor of Madras University and Deputy Director-General of UNESCO with distinction. His demise is an irreparable loss to the academic world."

Mr. P.K.Doraiswamy, Former Spl.Chief Secretary, Andhra Pradesh

"I had come to know him when I was Principal Secretary, Education, and later Chairman, AP State Council of Higher Education. Apart from enjoying his company and friendship, I always admired his intellectual involvement in spite of his age."

Mr.Eric Auzoux, Alliance Francaise de, Madras

"Dr.Adishesiah was a very eminent member of the board of trustees who has assisted the Alliance Francaise on various occasions."

Dr.N.S.Hiremath, Professor and Chairman, Dept. of Post-Graduate Studies and Research in Economics, Karnatak University, Dharwad

"A brilliant student of economics from the London School, Dr.Adishesiah rose to the highest peak in academic standing. He served UNESCO, as Deputy-Director General for well over a quarter of a century with distinction. As Vice-Chancellor of Madras University he was instrumental in instilling the developmental attitude in academics. As the Deputy Chairman of the Tamil Nadu State Planning Commission he laid a firm foundation and gave a developmental bias to the economic policies of Tamil Nadu. His contribution in framing the national economic policies as a member of Parliament and as founder-chairman of the Madras Institute of Development Studies, were equally noteworthy. In spite of his advanced age Adishesiah never failed to advance the cause of education especially in economic matters."

Fr. John Vallamattam, Commission for Education and Culture, Catholic Bishops' Conference of India, New Delhi

"I have been greatly inspired by his spirit of service and vision of society which he tried to apply to the widely different forums of his service. Every meeting with him was for me a charging of the battery."

Mr.Federico Mayor, Director-General, UNESCO, Paris

"Dr. Adishesiah was, for twenty-four years, a most distinguished servant of UNESCO, first as Assistant Director-General and subsequently as Deputy Director-General. He will always be remembered for the intellectual energy and vigour he brought to all his work, which contributed greatly to the image, as well as to the programmes of the organization. Following his retirement, he devoted much of his time and energy to the Madras Institute of Development Studies, but maintained strong links with UNESCO as Chairman of the Governing Board of the International Institute of Educational Planning and as Chairman of the jury for UNESCO's literacy prizes."

I still have a warm recollection of the last meeting with Dr.Adishesiah a little less than a year ago in New Delhi, on the occasion of the High Population Countries Summit, when we had a long discussion, enriched by his thoughtful insights. We mourn his passing, which is a great loss both to India and to the world intellectual community."

Mr.Henri Lopes, Assistant Director-General, UNESCO, Paris

"The passing of this distinguished scholar and eminent international civil servant is a great loss to the international intellectual community and all his dear friends at UNESCO."

Dr.Kamta Prasad, Indian Institute of Public Administration, New Delhi

"He was a giant of our profession and had played an extremely important part in national affairs. As the Deputy Director-General of UNESCO for a long time, he had rendered a distinguished service at the international level and remained extremely active in the economic profession till the end. His outstanding contribution to national life is too well known to require any specific mention."

Prof.P.D.Kulkarni, Member, Council for Social Development, New Delhi

"India has lost a rare humanist who made rich contributions to all round national development and enhanced India's prestige abroad."

Mr.A. Madhavan, Director, India International Centre, New Delhi

"As a Trustee of IIC, we all cherish his deep involvement and concern and his special contribution to the economic affairs programmes and the financial management of the Centre. His commitment, thoroughness, methodical application to the task in hand and the range of his contacts will long be remembered, particularly because these have become very rare qualities in public life today."

Dr. Manmohan Singh, Finance Minister, New Delhi

"In his death our country has lost a great scholar, a great educationist and a great institution builder who was deeply committed to the development of India in the framework of an open society and a just polity."

Mr. Manzoor Alam, Hony. Director, Institute of Energy and Environmental Studies, Hyderabad

"Frank and sincere to the core, the social sciences have lost their greatest benefactor. His contribution to the integrated development of social sciences in India can never be matched."

Mr.P K G Menon, Secretary, Tamil Nadu INTUC, Madras

"In the death of Dr.Adishesiah the nation has lost one of the eminent economists and educationists who took active interest in the welfare of labour and productivity. He was associated with many programmes in the development of a healthy industrial relations. His experience in the international fora and his commitment to the cause of economic advancement were well acknowledged. He made a remarkable impression of his personality wherever he worked."

Dr.V.T. Naidu, Sri Krishnadevaraya University, Anantapur

"The country has lost an eminent educationist and MIDS a benevolent supporter and guide."

Ms. Najma Heptulla, Parliament House, New Delhi

"Dr.Malcolm Adiseshiah was a great educationist and economist. He was a parliamentarian committed to the welfare of society."

Mr.K.R.Narayanan, Vice-President of India

"He was one of the leading economists and intellectuals of India, with a deep passion for social justice and reform. He was also a highly respected member of the Rajya Sabha who made important contributions in the House."

Mr.S S Narayanan, Madras

"Dr. Adiseshiah was one of those who appreciated that in the khadi and village industries sector the artisans and the craftsmen, who actually produced, deserved a much better deal, and that the white-collared marketing staff demanding more and more, should be checked. To those interested in Rural Development he was not only a source of inspiration but also a tower of strength."

Mr.H.Paranjoti, Palayamkottai

"His was an illustrious career spanning decades of dedicated service to not only India in the field of education and economics, but to the world community."

Mr.C.M.Pasupathy, former Finance Officer, Madras University

"I had the privilege of working close to him. He assumed his office in the University with a clear understanding that he would be available for the assignment for a single term of three years only and he prepared a broad sketch of his goals to be worked on. His style of functioning was a collective action and he balanced academic and administrative wings without giving any edge to a particular wing to dominate over the other. He created schools of science, arts, languages and through the conveners of these schools, he got a weekly feedback of academic progress and their needs. The agenda for the weekly meeting would be ready in time with promptitude and the minutes of the meetings would also be ready on the same day. A system of rotation of headship of each department of faculty was introduced by him. The Institute of Basic Medical Sciences got a lift in having its own building inaugurated with necessary laboratory facilities and staff.

"Under his guidance and directions, the syllabus of the various courses have been revised and curriculum contents suitably modified. The internal assessment system in the semester system was introduced and enforced earnestly. The Rural Reconstruction and

Community Service system was made part of the curriculum and it infused a sense of service in the minds of the student at the formative level."

"On the examination side, his immediate attention was to computerise the work relating to conduct of examination and publication of results. He introduced the central valuation system to expedite the publication of results and also started the revaluation of answer books, if the candidate so wishes. For the admission to PG courses, he attempted to have the selections centralised for all the colleges and the selection was processed with merit as criterion as well as providing for reservation principle. The process quickened the admission in a record time."

His relationship was never strained with the staff. His humane approach enabled administrative staff to get higher emoluments and liberal service conditions. He arranged for a systems study on administrative procedures by the Productivity Council and attempted to simplify the administrative procedures. He had a soft corner for staff welfare and even with acute stress of financial strain, he made a monumental contribution of provision of housing facilities to the staff at Palavakkam."

Dr.K.C.Reddy, Professor of Economics, Andhra University, Visakhapatnam

"His services as an economist, educationist and Parliamentarian will be ever remembered by the academic fraternity in India and abroad."

Mr.Sanjay Johri, Chief Executive, Reader's Digest, Bombay

"Dr.Adiseshiah was the chairman of the board of directors of our company from 1978 to 1993 and we, therefore, were privileged to have the benefit of his guidance and wisdom for 15 years. He was a perfect gentleman: though he was a towering intellectual, he never patronised anyone or made them feel inferior. I know that we will miss him for a very long time."

Mr.P.N.Sampath, Chingleput

"Even though I did not know him personally, I have been a great admirer of his signal contribution to education and public debate on vital issues. I was his co-contributor to Sri Khasa Subba Rao's Swatantra - English weekly. I used to greet him whenever I happened to meet him at public functions. He had a simple, unostentatious life and was willing to express his views boldly and clearly."

Mr.B.Sivanthi Adityan, Madras

"Dr.Adiseshiah was an eminent educationist who strove hard for the educational development of our country, especially that of Tamil Nadu. His demise is a great loss not only to our state but also to the Nation."

Dr. N.Subba Reddy, Centre for Economic and Social Studies, Hyderabad

"At the sad demise of Dr.Adishesiah, Alas! the beacon light is extinguished."

Dr.S.Subramanyan, Bharathiar University, Coimbatore

"Our country has lost one of her eminent economists and educationists."

Mr.Tarlok Singh, Indian Association of Social Science Institutions, New Delhi

I had known since early 1978 how unfailingly Malcolm used to prepare his piece every month for the MIDS Bulletin. There are probably a fairly large number of contributions by Malcolm scattered in various journals. He was always courteous and responded even at personal sacrifice of time to serious requests to contribute to a book or an issue of a journal. He did some pieces at my request. One important piece related to nuclear energy, a subject on which he felt deeply. At his instance there was a joint meeting of IASSI and the Indian National Science Academy.

Wherever I have seen the MIDS Bulletin, I have found good things in it and have liked it. I wonder whether, even after you have a new academic journal, an institution like MIDS may still not need a less formal channel of communication like a Bulletin. The Bulletin can help to communicate among social scientists and social sciences, of which we do not have enough at present. The nature of its contents may differ somewhat from the past.

Dr.H.Thirlaway, Newbury, England

I worked under Malcolm from 1951-60, in Pakistan, when he directed the technical assistance department. I hear from Pakistani friends that the geophysical and arid zone centres, I established with the leadership of the meteorological department and Malcolm's support, continue to flourish and I am the last survivor of that UNESCO geophysical project

Dr.S.Varadarajan, Agricultural Research Institute, Madurai

"Once he said while in Coimbatore, that youngsters must have a goal and should not drift. The words are still guiding me because he also explained how to follow them in practice."

Mr. Vinay Bharat Ram, Chairman, DCM Group, New Delhi

"Padma Bhushan Dr. Adishesiah was a many splendoured personality "

INSTITUTIONS

The Bharathiar University Teachers' Association (BHUTA), Coimbatore

"Dr. Adishesiah was a world renowned scholar, former Vice-Chancellor of Madras University and Chairman of MIDS. His services for the faster development of Madras University's P G Extension Centre at Coimbatore will be remembered for a very long time."

The Centre for Studies in Social Sciences, Calcutta

"Prof. Adishesiah was an eminent economist of international standing and had built up a tradition of teaching and research in his subject and had taken a keen interest not only in the development of MIDS but also the other research centres of the ICSSR across the country."

The Consortium for Strategic Management and Organisation Development, Hyderabad

"Malcolm, a meticulous planner, had a scientific temper. He always looked for facts and figures. Only then he ventured interpretation which was always thought-provoking and refreshing. He had a seminal mind and was of fearless disposition. While he will be remembered as an economist who made signal contributions to the field, he will be adored for inspiring those who touched base with him and worked with him in institutions with which he was associated."

The Council for Social Development, New Delhi

"In his death, the country has lost an eminent son who distinguished himself in every walk of life and who dedicated his entire life to the service of the nation, in fact the whole world, as an outstanding international civil servant, as a distinguished academic and educationist, as a parliamentarian, as an institution-builder and a person known for his unimpeachable integrity, probity and uprightness. In spite of his failing health he was gracious enough to agree to our request to continue as president until 1995. Only the other day he presided over the meeting of the Governing Body of CSD, as one of his last official engagements in Delhi. He did this with his characteristic sense of dedication and thoroughness, the qualities which we had all come to admire in him."

The Indian Institute of Mass Communication, New Delhi

"Dr.Adishesiah was a towering intellectual of great eminence who made a tremendous contribution to the economic and social thinking in the country."

The Indian Institute of Mass Communication, Dhenkanal

"Dr.Adishesiah was a great economist, a greater educationist and above all a distinguished human being and Indian. He served India and the world with great distinction and unsparing dedication throughout his long life. He was the Deputy Director-General of UNESCO for 26 years and was one of those who gave shape to this international

organisation. For five years he, as the President of the Indian Adult Education Association, gave a great push to its nation-building effort. He was awarded the Nehru Literacy (silver jubilee) award for the year 1992."

The Indian Institute of Engineering Technology, Madras

"Dr. Adiseshiah was appointed as VC and assumed office on 1st August 1975 and the first function was the opening of the Meenakshi College for Women at Kodambakkam on 4th August 1975. During his three years, his achievements were absolutely fantastic. The first project implemented was to grant the UGC scales of pay announced in 1974. The second, to study and improve the existing conditions of all the colleges in Madras University area. Particular reference should be made to the Pachayappa's College, Kandaswami Naidu College, the College in Adirampattanam, and A.M.Jain College. The third project was to revitalize and clean the entire Taramani campus. The most important achievement was the inauguration and near completion of the Palavakkam Housing Schemes for university employees."

The Indian Institute of Education, Pune

"Dr. Adiseshiah was a close friend of the late Prof. J.P. Naik, the founder of the Indian Institute of Education. Their association had begun as far back as 1953 while working with the UNESCO programmes. Their warm friendship and shared interest in educational development in India will remain deeply etched in the memory of many of us in this institute. Dr. Adiseshiah was a person of remarkable intellectual acuity. His vision of the education system required for the reconstruction of India's economic and social life was inspired by his commitment to the uplift of the downtrodden and the disadvantaged. Despite his being an outstanding economist and internationally renowned educationist, Dr. Adiseshiah was just 'Malcolm' to his friends. The warmth of his affection for his friends was most remarkable. A scholar so unassuming and so committed to the welfare of humanity is rarely to be found."

The Institute of Social Sciences, New Delhi

"Dr. Adiseshiah guided the destiny of the Institute during the last three years with dignity and inspiring passion. We shall miss his towering presence and principled guidance."

The Literacy India Trust, Madras

"In the demise of Dr. Adiseshiah, we have lost a good friend, guide and leader, and the country a person of outstanding ability in the field of education, particularly in adult literacy. We remember his progressive vision and dedicated mission for the promotion of literacy and carry on his dream with fresh vigour and commitment."

The National Institute of Health and Family Welfare, New Delhi

"In his death our country has lost a great scholar and an eminent economist. His death has created a vacuum in the academic fraternity."

The Population Foundation of India, New Delhi

"Dr. Adiseshiah was the chairman of our advisory council and in that capacity, he had guided the search for new ideas and approaches to advance the cause of population stabilisation. His tenure was marked by a number of new initiatives arising from a holistic vision of population. He was an eminent advisor and the country has lost a brilliant educationist and economist."

The State Planning Commission, Madras

"Dr. Adiseshiah, a distinguished economist, was a former member of the State Planning Commission. In his death, the nation and Tamil Nadu, in particular, has lost an eminent economist who made a significant contribution to development planning and to shaping economic policy. He was a father figure to the community of professional economists, and his views and commentaries on economic policy matters attracted the attention of policy makers, planners and administrators. He was appointed as a member of the State Planning Commission in May, 1971, and was closely associated with the formulation of a perspective plan for Tamil Nadu. He was again appointed as a Member in 1989. He served as a Member of the State Planning Commission for nearly six years and left an imprint on various aspects of development of the Tamil Nadu economy. His numerous publications in the form of reports, books, seminar papers, and articles have shown his commitment to the cause of economic and social development of the country."

The Tamil Nadu State Council for Science and Technology, Madras

"The Council remembers the excellent guidance and leadership offered by our beloved chairman."

The Madras Chamber of Commerce and Industry, Madras

"The Madras Chamber recalls the number of interactions at which Dr. Adiseshiah had contributed. He was respected for his wisdom and was amongst the internationally recognised economists."

The Southern Languages Book Trust, Madras

"Dr. Adiseshiah as our chairman did yeoman service to the growth of the Trust and even though he is not in our midst now, his services will always be remembered."

The Times Research Foundation, Calcutta

"India has lost a generation of eminent economists whose contributions will continue to influence our thinking for years to come."

முனைவர் : ச.க. இராமர் இளங்கோ

இயக்குநர்

உலகத் தமிழராய்ச்சி நிறுவனம், சென்னை.

சிறந்த கல்வியாளரும், பொருளியல் மேதையுமான டாக்டர் மால்கம் ஆதிசேஷையா அவர்கள் இந்நிறுவனம் உருவாவதற்கு உறுதுணையாக அமைந்தவர். அவர் சென்னைப் பல்கலைக்கழகத்தின் துணைவேந்தராகவும், இந்நிறுவனத் துணைத் தலைவராகவும் இருந்து சிறந்த பணியாற்றியவர்.

சீ. தங்கமுத்து

பதிவாளர், பாரதிதாசன் பல்கலைக்கழகம்

திருச்சிராப்பள்ளி.

திருச்சிராப்பள்ளி பட்டமேற்படிப்பு மையத்தை உள்ளடக்கிய சென்னைப் பல்கலைக்கழகத்தின் முன்னாள் துணைவேந்தரும், சிறந்த கல்வியாளர்களில் ஒருவருமாகிய முனைவர் மால்கம் எஸ். ஆதிசேஷையா அவர்கள் இயற்கை எய்தியமைக்கு பாரதிதாசன் பல்கலைக்கழகம் தனது ஆழ்ந்த இரங்கலை தெரிவித்துக் கொள்கிறது.

டாக்டர் மோகன்

பள்ளிசாரா மற்றும் வயது வந்தோர் கல்வி இயக்கம்

சென்னை 6

சிறந்த கல்வியாளரும், பொருளாதார நிபுணரும் அறிவொளி இயக்கத் தந்தை எனப் புகழப்படுபவரும் ஆகிய டாக்டர். மால்கம் ஆதிசேஷையா அவர்கள் காலமான செய்தி கேட்டு ஆழ்ந்த வருத்தம் அடைகிறோம்.

அ. வீனோத்

Rise அறக்கட்டளை

195A, அரிகரன் கடை வீதி.

பொன்னேரி, செங்கை மாவட்டம்

இந்தியாவிலும், குறிப்பாக, தமிழகத்திலும் அறியாமையில் உழல்கின்ற, பாமர மக்களின் வாழ்வில் முன்னேற்றங்களை அறிவொளி தீபத்தை ஏற்ற அடித்தளமிட்ட கரங்கள் ஒய்ந்து விட்டது என்று அறிந்து ஆழ்ந்த துயரமும் வேதனையும் அடைகிறோம்.

MALCOLM ADISESHIAH ON EDUCATION, ENVIRONMENT AND ECONOMICS



A memoiral volume such as this would be seriously incomplete if some space were not devoted to Malcolm Adiseshiah's own writing. While this is true, his writing also presents tremendous problems of selection. Dr. Adiseshiah wrote on an incredibly wide range of subjects, and prolifically. Any effort at presenting a 'representative sample' of his writing would, first, entail an immense preliminary task of collection, sorting, reading, and selecting; and, second, the outcome of this activity would probably, at the end of the day, fail to realise its objective adequately. A more sensible approach - discovered in this context, as it happens, through trial and error - might be not to attempt the impossible. Accordingly, reproduced in what follows, are three pieces of writing of Dr. Adiseshiah - not his 'best', not the most 'representative' (whatever that might mean) of his work - just three pieces that encompass his life-long concern with the material and cultural well-being of the citizens of this country.

The Culture of the Poor*

Who are the poor?

THE question of the identification of the poor, who the poor are - is really of recent origin. The first attempt to quantify the number of poor was the work of Dandekar and Rath in the early seventies. They used the minimum monthly expenditure on food that an individual had to incur to stay alive that had been worked out a decade earlier by the Planning Commission. They applied it to the National Sample Survey data on monthly expenditures on food by individuals and families in rural and urban areas of each State, defined as those who could not spend the minimum on their food.

Who are these poor? Where do they live? What are their occupations? They are the men, women and children who do not have enough to eat in a day, who go to bed hungry at night. They suffer from under-nourishment and malnutrition, and are afflicted by respiratory and intestinal illnesses, and night blindness. Their infant mortality rate is high. They are the illiterate adult men and women, whose children do not go to school or drop out after the first or second year, whose women have to walk long distances every day to fetch (not very safe) drinking water, whose clothing is scanty (3 meters per head per annum compared to 35 meters for top 30 per cent of society) and usually in tatters. Their housing is a palm thatched hovel in the scheduled caste part of the village or in an urban slum. They are scheduled caste, scheduled tribe and other backward and discriminated sections of society, 80 per cent of whom live in villages and 20 per cent in urban slums. In rural areas they are: (a) agricultural labour, with no land or other asset, working for a wage which is usually below the prescribed minimum wages for about 150 or 180 days in the year, constituting over 50 per cent of the 260 million men, women and children who are the rural poor; (b) small and marginal cultivators (who cultivate less than one hectare of land in the case of small cultivators and less than half hectare in the case of marginal farmers) who constitute about 35 per cent of the rural poor, and (c) handloom weavers, blacksmiths, carpenters, potters, tanners, cobblers, craftsmen and fishermen who form the remaining 15 per cent of the rural poor.

In this group, women are the most exploited - exploited by the employers who pay them a lower wage for the same work or harder work than done by men; and exploited by the husband who takes away her earnings, when she comes home and spends them for his own benefit. In fact, several studies in Punjab, Haryana, Andhra Pradesh and Thanjavur show that women are in a no-win position. In the case of poor families, their small earnings are appropriated by men. In the case of peasant families, whose income is rising, the first thing that happens with relative affluence is the enforced withdrawal of the women of the family not only from the work force but also from the management of

* Edited excerpts reprinted from Karuna M. Braganza R.S.C.J. and Saleem Peeradina (eds.), *Cultural Forces Shaping India*, Macmillan, New Delhi, 1989, pages 78 to 111. Reproduced with permission from copy right holders and the publishers Mac Millan, New Delhi.

the family. Both poverty and affluence impinge heavily on women in our society in urban areas. The occupations of the urban poor are: (a) construction work; (b) wage work in petty production, trade and services, (c) self employment, and (d) domestic services.

Impact of Poverty on Education

The major impact of poverty on the education system has been, and is, to make education the monopoly of the rich and to exclude the poor from its purview. This is manifested in what is called the drop-out rate in the school system. According to official statistics, 60 per cent of the children who enrol in class I drop out before class V. This is deplorable because UNESCO, on the basis of inter-country studies, points out that a school going child acquires the permanent tools of literacy - reading, writing and arithmetic - after completion of the first four years of primary school. This means that our school system is adding every year an average of 15 per cent of the first year enrolment to the illiteracy cohort of the country, that the present school system promotes illiteracy rather than literacy.

These drop-outs are children from the poor families. This brings out the tragic coincidence of the poverty ratio and the drop out ratio. These children drop-out during the first, second or third year, because if they are boys they have to work on the farm or help the father in some other occupation to supplement the low earnings of the parents. In the case of girls figures show the drop-outs are about 50 per cent more than the boys. Here, various cultural factors intervene. There is a general feeling that it is less important to educate girls than boys. Further in regard to the little food there is, the boys get preference, so that the girl's staying power in school is much less. And finally there is the care of the house during the day, when the father, mother and the son(s) are out working.

The Government has decided to counter this high rate of drop out of girls at the secondary level by making education free upto this level. This is a good policy, although not sufficient to bring girls back to school as seen in Tamil Nadu and Karnataka where girls' secondary school education is free.

This brings us to the more general cultural impact of poverty reflected in the disparities within the school system. There are schools for the rich and schools for the poor. The privileged few from the affluent families have access to superior education, whereas the poor are denied even the basic tools.

The contrast is glaring and symptomatic of a culture marked by disparities of all kinds. In 1965, the Indian Council of Social Science Research (ICSSR) made a state-wise survey of the parental income of those in high schools and colleges. The finding was that 80 per cent of high school and college completers were from the top 20 per cent of society. In 1977, the University Grants Commission finding was that 70 per cent of the seats in secondary schools and 80 per cent in higher education are taken by the top 30 per cent income groups.

Majority in Minority

Further, all education in India is subsidised, given the system of state payment of teachers' salaries and block grants by the government on which universities run. Government revenues raised through indirect taxes were 83 per cent in 1981-82 (compared to 48 per cent in 1945-46); and it is a known fact that unlike direct taxes which are paid by more than two million income tax, corporate tax and wealth tax payers, indirect taxes are paid by all people and as the majority of the people are poor, these are paid to a major extent by them. This means that the poor, who are the majority in society, are a small minority in the high school and college system, as the beneficiaries of subsidised education are the children of the affluent families.

The other major impact of education is on the adult illiterates who come from the people living below the poverty line. They are - as noted earlier - landless agricultural labourers, small and marginal farmers, casual workers and artisans. All are from Scheduled Castes and Scheduled Tribes and other deprived communities. Adult male literacy is 23.56 per cent and female literacy 5.69 per cent. Among the scheduled tribes it is even worse at 5.91 per cent and 1 per cent respectively. The presence of this large and continuously increasing numbers of adult illiterates shows that the educational system has passed them by. They are not part of what we call the national mainstream and are, to that extent cast off as a distinct cultural unit.

Strategy to lift the poor out of Poverty

The strategy proposed to raise the poor above the level of poverty was at first technocratic - to raise the growth rate of the economy, which will seep down to the poor and raise their incomes. This strategy called for quickly attaining an economic growth rate of seven per cent per annum as a means of removing poverty, without any change in income or asset distribution. This approach still underlies reports on the number of people who have been raised above the poverty level during the Sixth Plan. One official estimate is that at the macro level the economic growth process during the first two years of the Sixth Plan - 1980-81 and 1981-82 - has brought 57 million people above the poverty level. The number is divided into: (a) 27 million because of growth, and (b) 30 million lifted above poverty because of the beneficiary oriented programmes - NREP, IRDP, TRYSEM etc. A more recent case of this approach at the micro level based on a re-survey of 3128 rural households in 1981-82 (the first survey of these households was made in 1970-71) shows that the GNP growth which accelerated between 1973-74 and 1983-84 to 4.01 per cent (from the previous decade and a half's 3.31 per cent) percolated down to improve the condition of the poor. The major point is that increased economic growth has decreased poverty.

This argument is carried further in the Kuznets hypothesis which, on the basis of empirical historical studies, states that in the early stages of economic development income distribution worsened as traditional arts and crafts using traditional technology

were destroyed. Those making their living through these activities are thrown out of employment and join the ranks of the unemployed and underemployed. But later with sophisticated large scale agricultural and industrial production, labour becomes scarce and wages and salaries rise to high levels. Our own early planning documents reflected this hypotheses; any drastic redistribution of the present level of incomes, even if it were feasible, is bound to make the mobilisation of savings for investment far more difficult. Moreover, such a measure will reduce the incomes of skilled workers, supervisors, managers, entrepreneurs and other groups who have a crucial role in developing the economy. Unless these groups are permitted incomes substantially above the average, development will be affected adversely. Some degree of inequality in income is thus an essential part of the structures of incentives in a growing economy.

Top-Down Strategy

This top-down strategy and the hypothesis that economic growth must first worsen income and wealth inequalities in society rests on the assumption that market forces are operating in the economy freely. It ignores the more important interventions by government and voluntary agencies which set the tone and direction of the desired development. Hence, an alternative strategy is development aimed at relieving and correcting inequalities through a series of interventions. Broadly, these are of five types.

Minimum Needs

First, the minimum needs programme aimed at helping the poor to have access to basic amenities. Hence in the Sixth Plan, a sum of Rs.5807 crores was provided and spent for enrolling 95 per cent of upper primary age students — but the problem of drop-outs remains formidable says the Annual Plan 1982-83, as is improving the retention rates of the formal school system, according to the Annual Plan 1984-85 and making about half the adult illiterates in the age group 15 to 35 (50 million) literate. The programme aims at provision of one Community health volunteer for every village; one Community Health Centre for every Community Development Block; one Primary Health Centre for every 30000 people; one sub-centre for every 5000 people; safe drinking water to all people; constructing rural roads; electrification of all villages; house-sites to rural landless labourers; water supply drains; streets; community latrines and street lighting to urban slums; Mid-day Meals for children and extension of Public Distribution network and its components. There is one major gap in minimum needs programme which the voluntary agencies can fill in — that is to ensure that these provisions reach the poor and are not misappropriated by middlemen, traders and corrupt officers. Corruption being a very intrinsic part of our culture, can only be curtailed by very strict enforcement of laws to benefit the underprivileged of our society.

Job Schemes

A second relief effort in this alternative strategy is to provide gainful employment to the unemployed or under-employed poor. I stress the term 'gainful employment' because,

unlike in the rich countries, the poor in India are the working poor, who are unable to earn enough to sustain themselves and their families. The problem of underemployment or disguised unemployment is about twenty times as serious as that of full-time unemployment, which only affects the educated youth from the middle and the upper classes, who unlike the poor, fall back on their families for sustenance. The programmes aimed at generating gainful employment to alleviate the conditions of the poor majority include the National Rural Employment Programme which the central and state governments are operating under a 50-50 financial sharing basis with a view to generating 300-400 million mandays of employment a year, the wages paid being part in cash and part in foodgrains.

Within the employment generation programme, are the two programmes launched in 1983-84 — the Rural Landless Employment Guarantee Programme (RLEGP), and Employment for the educated unemployed. Out of Rs.400 crores allocated for RLEGP in 1984-85, Rs.249 crores were spent by the end of January 1985. The slowness is due to the centralization of the programme in New Delhi, the Delhi committee not being able to clear projects quickly. This led the Planning Commission to cut the allocation for this important programme — from Rs.700 crores to Rs.600 crores in 1985-86. If voluntary agencies help in implementing this much needed decentralized employment programme for the neediest in society, it would be an effective relief effort.

Under a programme of jobs for the educated unemployed started in 1983-84, each beneficiary is entitled to a bank loan of Rs.25,000 to set up a business. In 1983-84, 10,691 were so helped and in 1984-85, 15,000 benefitted. This programme, however, goes beyond merely providing relief and helps people purchase machinery or equipment to set up the business in question, which after repayment of the bank loan, becomes their property. Linked to this programme now is the scheme (started in 1979) for Training of Rural Youth for Self-Employment (TRYSEM), which equips rural youth (recruited from the poorest families) in specific skills and technology to enable them to employ themselves. Evaluation studies show that trainees face problems of providing security while obtaining bank loans. Lack of cooperatives and other institutional arrangements for their craft, lack of integrated systems for supply of raw materials and marketing of their produce are among the other problems. With the launching of a new programme for the employment of the educated unemployed, a part of the TRYSEM trainees could be taken over and provided the needed infrastructural support.

Others

A third relief programme to relieve the poverty of those living in drought prone areas affecting some 511 blocks in 70 districts in 13 states is aimed at optimum utilization of land, water, livestock resources, and stabilizing the incomes of the people involved. Similarly there is a Desert Development Programme which, by controlling the desert areas, has increased the level of production, income and employment of the people living in 126 blocks.

Another poverty alleviation programme is the special area programme which is for hill and tribal areas in Gujarat, Jammu and Kashmir, Kerala, North-East states and West Bengal on which too much time has been spent on planning and too little on action. Fifth, there are schemes for animal husbandry, cottage, Khadi and village industries handloom, sericulture, handicrafts and coir industry. In all such programmes where wage employment is created it is essential that the minimum wages be implemented fully and linked to the consumer price index for agricultural workers.

We now move to the strategy of intervention which aims at not merely relief of poverty, but at an effort to attack the basic cause of poverty and in that sense to cure it. At the root of poverty and growing inequalities of income suffered by the poor majority is their assetlessness. The lowest 10 per cent (poorest) in rural areas have less than 2 per cent of the total national income because they own 0.1 per cent of all the assets in the country; and similarly the bottom 30 per cent in our villages have access only to 8.6 per cent of our national income because their assets have been declining from 2.1 per cent in 1961 to 2.0 per cent in 1971. This means that the cure to poverty is: (a) to make available assets to the assetless; and (b) to diminish the inequalities in ownership of assets. Of these two objectives, efforts are being made to provide (or increase) assets to those with no or little assets. Such an asset providing programme is the Integrated Rural Development Programme (IRDP) under which 3000 of the poorest families, out of the 12,000 such families living in each of the 5000 blocks, are being assisted — 2000 through agriculture, 500 through village and cottage industries and 500 in the service sector, with an annual grant of Rs.5-8 lakh for each block plus Rs.5 lakh bank credit. The main thrust of this programme is that it provides each family with some asset in the form of cattle, poultry, handloom or artisan tools etc. There are conflicting claims about the results of this programme, with the government referring to the studies showing that 40-50 per cent of the beneficiaries in Tamil Nadu and Gujarat had crossed the poverty line, increasing their annual income by Rs.2000-Rs.3000 in one group and by Rs.1000-Rs.2000 in another. It also refers to the NABARD study which states that 47 per cent of the beneficiaries crossed the poverty line and that the average beneficiary's income increased by 82 per cent. On the other hand, studies by the National Institute of Bank Management of 312 beneficiaries in five districts show that four per cent of them recorded a negative income, 20 per cent no income change and 33 per cent had an annual income increase of more than Rs.1000. One of the problems is the centralized nature of the programme and the distortions caused by the application of uniform norms.

A rather exhaustive study by a group of economists shows that hardly three per cent of the rural poor could be brought above the poverty line through this programme. Here, again a major limiting factor has been that the over-burdened local development administration has to identify, assist and monitor projects of 120 new beneficiary households each year plus those from previous years.

The most devastating criticism of the programme is that it is addressed to the poorest of the poor, following the 'antyodaya' principle - people who are stated to be incompetent and/or unable to maintain and use assets. In most cases it is the cattle which the poorest landless labour family is not able to maintain in its dry period, does not have the resources to give it the needed fodder, cannot protect it from the hot summer winds. In fact, the conclusion drawn is that the poorest of the poor are not capable of maintaining an asset and earning an income from it. I personally reject this conclusion because the misuse of this programme is the responsibility of the non-poor. The poorest of the poor are quite capable of maintaining the assets that they purchase, if the necessary infrastructure is made available to them. But what is frightening in this analysis is the characterization of the poor as being incapable and incompetent to maintain the assets that they are helped to acquire under IRDP.

The most important assets redistribution programme is in land. This is the asset which the rural poor desire and on which our record of distribution is poor. First, we have diluted the land ceilings legislation and made it so difficult to operate through, that any land acquired by the state for distribution to the poor should be compensated at the full market rate. There are so many loopholes to cover family, relatives and friends that a whole herd of elephants can march through the legislation. In this important programme, if all the land above a ceiling of 20 acres is available for distribution, it can be distributed either to the landless agricultural labourers giving them each an average of 2-3 acres, or to the small and marginal cultivators, giving them each the same additional amount of land. In either case, about 100 million poor people will be left out, and they must be given assets through IRDP, the educated self-employed programme, and the schemes for cooperative animal husbandry, dairy development and cottage and small industries.

Earlier, a reference was made to the second basic cure to poverty, namely diminishing the inequalities in the ownership of assets. It must be admitted that in the existing socio-economic structure, where given the various legislative loopholes, there are no real limits to the ownership of assets, this is not possible. Here is a situation where even the fiscal instruments have not been and are not being used to restrain the accumulation of wealth; and major public revenues are collected from the poor majority through indirect taxation. Under these conditions, there is no chance of equalisation of property ownership.

Adult literacy

The common problem with anti-poverty programmes is the diversion of their benefits to the rich and well-to-do farmers in the case of irrigation, fertiliser subsidies, food subsidies, land ceiling legislation; and to middlemen, traders and other non-poor in the case of NREP, RLEGP, IRDP etc. In the field of education, the mass of the poor adult men and women are excluded from all forms of education. In such a situation, the adult literacy programme has a double responsibility. First, it is to make these adult illiterates, particularly the massive number of women illiterates literate, giving them the skills of reading, writing

and arithmetic. Even more important are the adult literacy centres. There are two lakh centres in the country, each one being attended by 30-35 adults every evening. These centres should be used to acquaint the people with their rights to the facilities provided for them, and the extent to which they are being deprived of them by various groups.

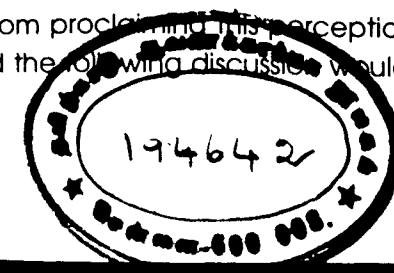
The organisation of the poor is the key instrument to fight poverty. In the adult literacy centres we have a readymade organisation of the poor by the poor. In the centres that I am running in Tamil Nadu, I find that the adult men and women attending the centres spend the first half hour or so discussing their problems, and their plans to organise themselves to ask for the minimum wages that they understand has been fixed for their area, to organise a fair price shop so that their rice and salt and sugar can be obtained at the subsidised price. In one case they discussed the steps they would take to use that surplus land of the landlord in the village as well as the 'paramboke' land which was divided among them in the manner envisaged by the land reform law and the regulations which they had been studying in the class.

The response of the school system to poverty is at the primary school level. The rural schools will have to be upgraded in terms of facilities and quality of teachers, and their curriculum structured around the daily lives of the school children and parents. In addition, free midday meals, school uniform and textbooks will have to be provided to children from poor families. In secondary schools, colleges and universities, given the class composition of the completers at these levels of education, education's response should be to charge fees for education of students from well-to-do families, (who are the real majority in the formal education system), so that education ceases to be an instrument for the transfer of resources from the poor majority to the rich minority. Further, a continuous increase in the number of students from the poor families in these institutes should be assured by a combination of reservation, special coaching, scholarships, and loans.

Holistic nature of poverty

Poverty is construed as the deprivation of certain goods and services by the mass of the people called the poor. The deprivation stems from lack of production of the goods and services (called wage goods) which the poor masses need, and from their inability to command these resources and ensure that they are produced. Hence, the strategy to combat poverty has been to enlarge the production of wage goods — foodgrains, clothing, housing, education, health services, protected drinking water etc., — and to place purchasing power in their hands through various programmes of employment and self-employment. But the culture of the poor that we are concerned with is much more than what follows from this double deprivation of lack of flow of wage goods and purchasing power.

A sociologist's analysis of the power elite and its perception of the poor is set forth in the following terms: firstly, the elite perceives the poor as incompetent. The constraints of an election-linked polity discourage this elite from proclaiming this perception from the housetops, but both personal observation and the following discussion would show



that the elite takes it for granted. The poor find themselves treated as incompetent because, in the absence of a revolution from below, all consequential structures are so organised that those who control and operate them are separated from the bottom of the population. This can be surmounted in various ways; personal attributes of dress, language, etc., social attributes of resourceful networks; or the political attributes of possessing power. But the poor are poor precisely because they do not have any of these.

Finally, the society is so organised as to keep the poor incompetent. The key element of this organisation is the very great variation in the pattern of property holdings. This gives rise to glaring differences in the magnitude of individual interests, in the capacities to articulate those interests and in the capacities to pay and to command the decision-makers so they would attend one's interests.

Cultural dimensions

Apart from absolute poverty which is the basic feature of the culture of the poor, apart from growing inequalities amounting to inequity which is the infrastructure on which the culture of the poor rests, and apart from the overall social control of the power elite and their perception and rationale of culture of the poor, there are some para-autonomous culture traits of the poor which need attention. These relate to the attitudes, behaviour patterns, value systems, earning, spending and borrowing patterns, time orientation, inter-personal, inter-household and inter-caste relationships which characterise any group of persons.

Such cultural hallmarks are to be found among any group of landlords or large or middle peasants, among city traders and money-lenders, or urban businessmen and managers. Similarly for those living in poverty with little hope of climbing out of it, (and even for the few of those who do manage it, the material conditions do not change) the reference to the culture of the poor in our country is a reference to the attitude, behaviour, values etc., of a fixed underprivileged class. So conceived, the culture of the poor at the level of every village 'cheri' (which is the scheduled caste village annex) or urban slum is thus part of the class distinctions.

This term culture of the poor or culture of poverty, has been widely popularised by the anthropologist, Oscar Lewis. He has made a series of personal observations having lived in the poor settlements in Mexico, Puerto Rico and New York. These are based on, to use his own words, 'a complete acceptance of the people, a deep sense of sympathy and identification with their problems and an enduring friendship'. He shows that the culture of the poor results from common adaptation to common problems, that it is a way of life which is passed on from one generation to another, that it is based on 'the existence of a set of values in the dominant class which stresses' the accumulation of wealth and explains the low economic status as a result of personal inadequacy or inferiority. It contains a great deal of pathos, suffering, emptiness, with no future expectations except for a sense of hopelessness and isolation. In other words, the culture

of the poor is the way of life developed by the poor as the result of this alienation from the rest of the society, as the means of coping with a hopeless life situation.

In its content the culture of the poor preserves traditional values of community solidarity, sub-caste unity, sharing and caring for members of the group. It also has negative traits such as preoccupation with money and material goods, dishonesty, thieving and cheating forced by poverty. In its character, it promotes intra-family inequalities giving women and girls a lower position in the family, though it is free in the case of the middle and upper caste and class discriminations against women in the form of bride burning, dowry deaths and rape. In its nature, it is historical in the sense that it is passed on from one generation to the next, and the few who climb out of the poverty morass are quickly absorbed in the upper class culture. Its environment is low income, inequality, socio-cultural deprivation due to the place in class and caste hierarchy, early separation from the house and family, illiteracy, poor housing etc.

Its scope is as wide as the country in the sense that the culture of the poor as a dehumanising force is found in all parts of the country with some moderation as in the case of Punjab, Haryana and Kerala because of economic development or historical traditions. The scope of the culture of the poor is also specific in the sense that its specific content, character, nature and environment varies from village to village. All macro generalisations of the scope of the culture of the poor have to be underpinned by micro specification of the cultural characteristics to be found in each locality. This portrayal of the culture of the poor has been described as forming three concentric layers. The general poverty and the attendant congestion of the areas where the poor live and the limitations and roles enjoined by caste form one surrounding layer. Living conditions at home and the activities encouraged or discouraged constitute the second layer. Quality of schooling as well as the nature of poor groups to which the child belongs is the invisible outer layer. In this portrayal, the paradigm of the culture of the poor that merges is an orientation to helplessness and powerlessness, resulting in a structural pattern, characterised by low need for achievement, low need for extension and high need for dependency. This dependency is expressed through lack of initiative, the avoidance syndrome, excessive fear of failures, seeking favours of superiors, over-conformity and aggressive rejection of authority: all negative traits super-imposed by the culture of the poor and inherent resentment for the way they are.

This dependency is also often reflected in over-dependence on governmental and other external agencies and almost total lack of self-help. Equally in this culture of the poor, there is a general tendency to refer success to external factors, like a benevolent government (sarkar), Fate, God or Nature etc. Thus such external agencies are thanked for their munificence and this externalisation of every good and successful factor has its counterpart that ascribes all failures to one's own inadequacies, involving an internalised mechanism of self disparagement. Thus, in this culture success is not a reinforcing agent, as it is externalised, whereas failure is a discouraging and damaging force, which lowers even further the status of the group.

One characteristic of the culture of the poor is the discrimination suffered by women and girls within that group. As noted earlier, this is part of a wider problem of discrimination against women. What is even more disturbing is the hypocritical element in our culture, where women are worshipped as deities responsible for learning and wisdom, wealth and beauty while at the same time they are denied learning, treated as devoid of wisdom, and their right to equal income etc., is not recognised. In this, we face not only the grave problem of the culture of poverty but of the poverty of our entire culture.

Education's response

The primary response of the education system to the culture of the poor is to reflect culture in all its negative facets. The school is in an unattractive and unhygienic locale, lacking in many cases a building and minimum facilities, the atmosphere is indifferent leading to indifference and even repugnance on the part of the students, seen in the fact that many of them become class room drop-outs (irregular attendance) as a prelude to becoming school drop-outs. Studies show that there is a close correlation between illiteracy and the low education level - and/or low aspiration - of the parents and their school age children who drop out of classes first and out of the school later. In other words, the low education level - and/or low educational aspirations of children are an internalised projection of low parental aspirations.

The culture of the poor makes the parents and school age children fatalistic, erodes their self confidence, lowers their self esteem, further reduces their aspirations and makes the school age child follow the parents sense of helplessness, pessimism and defeatism. Parents set no example or stimulation for the child, and so, from early childhood whether in school or outside no one expects him/her to succeed, and neither does the child. All this means that the facile view that education is a solution to the morass of the culture of the poor, that education can solve the problems of the culture of the poor, needs to be replaced by the view that the culture of the poor calls for action at deeper political, social and economic levels.

What is worse is that improved schooling for the children of poor families is not necessarily a means of reducing their disadvantage. Some studies on the skills acquired at school by children from poor and rich families raise this question. On the contrary the disparity was getting more accentuated with advance in age and schooling.

In this situation of the culture of the poor, education has, however, a responsibility which has to be examined either in terms of the various elements of the culture in question or in terms of the various levels of education. The various components of the culture of the poor whether considered in terms of content, character, nature, environment and scope, or in terms of economic, social, religious and artistic aspects, or in terms of individual groups and sub-castes etc., are all inter-connected. Treating each separately in relation to education may introduce an element of artificiality and give each an air of pseudo-autonomy which it does not in reality possess. From this point of view, it is better to

consider education's response to the complex and tragic facts of the culture of the poor by examining it in terms of the traditional levels or forms of education.

To start with, and from the short-run point of view, adult education and within it adult literacy has an important role in combating the culture of the poor both at the political and structural level and at the technical/functional level. The adult literacy centres can become instruments of fighting against the culture of poverty in its many sided ill-effects. This includes women organising themselves to fight against the various intra-household and market discriminations to which they are subjected in employment, in wages, in access to food and nourishment, in planning the family and its welfare.

The technical/functional adult education responsibility is to equip the illiterate adult with some income-earning skills in order that he/she may increase the family income.

The other task of adult education is to train illiterate adult men and women in the tools of literacy. This function has been latterly denigrated and decried in many evaluations of the National Adult Literacy Programme, as having brought the programme down to "mere literacy" as reported by these evaluations. The technical functions of the literacy classes for the illiterate adults from the poor rural and urban sectors should be aimed at developing their communication skills so that their linguistic codes are closer to those of the non-poor. From this point of view, the 'literacy role' of the Adult Education centres is crucial.

Earlier, reference was made to studies which showed that children from poor families studying in elite schools do not do as well as the children from well-to-do families. This is explained in terms of academic achievement being correlated with intelligence, and intelligence correlated with at least four indices of the poverty of culture - namely income, caste, sex and locale. If a student is from low income, low caste, a female and from the rural areas, the intelligence score is low, whereas a student from the rich, high caste, male sex and urban locale, the intelligence score is higher. But the profile in reality is not so unilinear. Several studies, including the one quoted above, show that the children from poor families perform as well as, sometimes better than, children from the well-to-do families in the early years - say upto the primary school stage. This finding is important in regard to our constitutional obligation to provide education to all children upto age of 14. Differences between the two groups of children emerge in the upper primary and secondary, and become sharp as they move to higher secondary or university studies. Here we need to make a distinction between intelligence and academic achievement. While the score on intelligence is not markedly different for the two groups of children, the score on academic achievement is markedly in favour of children from the well-to-do homes. Academic achievement is a function of intelligence, of course, but there are also several other socio-cultural factors of which parental instruction and support is one of the most decisive. Even among children of the well-to-do families, studies show that "children of parents who take interest in their education, guide and supervise their studies, participate in educational activities, have higher educational and occupational aspirations, do better in studies, than the children of parents who lack these qualities". In fact, the parental support can make up for some lack of intelligence.

Students from poor families, whose parents are illiterate or with low education, do not have this kind of parental support, which is decisive in regard to academic achievement at the high school and university level. Therefore, at all these levels of education, additional compensatory education for students from poor families becomes essential.

This brings to the fore the special responsibility of the teacher in his relationship to the learning responses, or non-responses of his students, especially of those from poor families. Almost all teachers are from the non-poor sector of society and so there is a startling cultural gap between the teachers and the students from the poverty sector. Further, the teachers are at the secondary and college levels trained or brought up in a tradition, where the teaching is addressed to the students in general, and not to the particular condition and situation of each student. Education in the end is a one-to-one relationship, which involves a dialogue among the learners. But in effect teaching has become a monologue which means there is little or no learning. Also, the teachers are involved much more in trade union type activities paying very little attention to teaching, learning, research, etc. The question that is raised here is in the selection of persons who enter the teaching profession whether there should be an element of personal commitment, a sense of vocation that should be tested?

While this kind of test may be difficult on a vast scale by the government, should a start be made by voluntary organisations running schools and colleges? A related issue is - can teachers regain a sense of their vocation as long as education is a routine government/bureaucratic exercise? A second issue is the content of the training of teachers. As the majority of the society is in the poor sector, and as children from that sector should form the majority in our schools to start with should not the training programme of our teachers include a study of the nature of society - of the affluent minority and the poor majority, an understanding of the culture of the poor, and how learning can be directed to meet the special features of that culture? Above all, given the fact that poverty will be with us for some time, should not the training of the teacher include ways and means of the school (and the teacher) going out to the students from the poor families to help them learn, instead of only waiting for them to come in to the school. This will also help solve the problem of hostility and negativism, which the class room arouses among students from poor families.

There is also the problem of curriculum and textbooks. The curriculum is at present rather heavily oriented towards the well-to-do, urban, non-agricultural culture of society. This could be in part corrected, if a certain part of the curriculum/syllabus is allowed to be developed by each school, both in relation to culture characterising the region in which it is located and the response of the school going out to the students, in a kind of school without classroom walls. Some of the curriculum/syllabus will have to be common to the district, region, and/or state, but a part varying from 30-50 per cent should be left to the teacher and the students to develop. This means that the teacher has to be trained during his training college days in this kind of curricular development by the school as part of its learning and educational responsibilities.

Similarly, some parts of the textbooks - both in natural and social sciences and in the languages - should emanate, if not from each school, at least from a group of schools in a district or block, so that the teachers and students are, while learning to abstract from reality, also deal with the real world around them. This involves the state departments of education allowing schools to develop in part their curricula/syllabi, and some of their textbooks. On that basis, the training of teachers should involve training them in the theory and practice of curriculum development and textbook production.

At the level of higher education, in the arts and science colleges and universities, there is a very serious situation. Not only at the level are 80 per cent of the benefits - whatever they are in terms of completion of the college/university course - appropriated by students from the top two to three deciles of society, as noted earlier, there is enormous waste involved in the motions that are gone through in the areas of teaching, textbooks and boards of studies etc. Fees charged from the well-to-do students are those fixed three or four decades ago plunging universities and colleges into financial difficulties. The examinations have become a farce, as far as recording a student's learning attainments is concerned.

Under these conditions, arts and sciences education needs to be restructured through: (a) admitting to it students who have an aptitude for higher education, as evidenced in a test designed for the purpose; (b) 50 per cent of the admissions be reserved for students from the poverty sector who will be given loan scholarships to cover their board, lodging and textbooks; (c) all other students to be charged fees which will be raised every two years till they reflect the rate of inflation in the country; (d) study programmes should be semesterised and be subjected to a number of internal tests, such as quizzes, home assignments, internal exams, seminars and library work as a means of continual interest assessment; (e) a cumulative record of learning study, which will replace the external examination. I conclude that in this restructured higher education, in which community and social service in rural and urban slums will be part of the curriculum, the culture of the poor will receive its share of attention.

NATURAL RESOURCE ENVIRONMENT OF INDIA*

Environment

THE environment is a complex intermingling of natural and human resources and social conditions — and their many interacting effects on our planet. The most distinguishing feature of the environment is the interconnectedness of the various parts of resources and society that form the environment. As such each resource is an integral part of a whole and can be understood, analysed and dealt with only in this integrated and holistic manner. Naturally, the scope of environment encompasses human ecology, public and occupational health and safety, avoidance of pollution of land, water and air, management of natural resources, reduction of waste, and improved natural resource use through multiple use, recycling and erosion control, conservation of the natural habitats, aesthetic and cultural preservation and an equitable societal organisation which will make all this possible. This straight away raises a problem for economics, which can only deal with one quantity or facet at a time.

Economics and Environment

The neglect of the environment by economics has many explanatory variables. First, at the beginning of modern economics — which is usually placed around the time of Adam Smith's *Wealth of Nations* in 1776 — the environment seemed abundant and under-utilised. In such a situation, economics did not need to pay special attention to the environment. Secondly, the central concern of economics is the market, and price which results from and dominates all market transactions. Into such a market transaction, the environment and most natural resources do not enter, because they are regarded as free goods. Thirdly, the fragmentation of knowledge and the conceptual divorce of natural and social sciences also led to the neglect of the role of environment. Fourthly, the definition of economic development as economic growth called for growth of manufacture, with the expansion of individual industrial sectors, without proper regard for the environmental price involved. A fifth, somewhat technical, factor has been the premise regarding the substitutability of natural resources by capital in the production function. Some economists hold that such substitution can and does take place, while others state that such substitutability is fallacious because capital itself can be produced only by expanding natural resources.

There was one other important constraint that prevented the perception of the negative effect on the environment of the economic growth preoccupation and that was the non-applicability, and in some cases wrong applicability, of the neo-classical tool of cost-benefit analysis. The problems involved in applying this tool to projects, in which environmental aspects are involved include the following:

- (a) The fact that most environmental elements are public goods and have no market prices: here the technique of shadow pricing could be used, but for that there has to be some base.
- (b) The inter-generational problem, under which many environmental benefits are not perceptible in the short run and accrue only to future generations, which makes the cost-benefit analysis with its short time horizon and its discounting of future benefits to net present value, inapplicable.
- (c) The discount rate issue involved in cost-benefit analysis that is still unresolved. There are a number of issues here. While a discount rate for finite human beings can be set, is there any such temporal limit to society and the flow of benefits from public investments? It involves a value judgement that after the given number of years (given in the rate of discount), the further years are of no account. The discount rates favour projects with short-term benefits or long-term costs, while weighing against investments which have long-term benefits which characterise most environmental projects.
- (d) The problem of the inability to evaluate irreversibles, as in the case of the disappearing animal, fish and plant species, erosion of the diverse genetic base, or negative environmental externalities, as in the case of soil erosion or climatic change.
- (e) The empirical problems related to assessing and measuring what economists call consumption and destruction of capital. For instance, in India the systematic denudation of forests has led to recurrent floods, which in turn has resulted in destruction of livestock, house property, tools of trade, farm lands, soils and human health and lives. There are sporadic and fragmented estimates of the cost of damage to assets as in RBI's All-India Debt and Investment Surveys, the Central Water Commission's estimates of resources lost in floods, etc., but no complete regular inventory of recurring capital loss. There is also an additional accounting problem in that the capital loss such as that following inundation of forest land by irrigation reservoirs, or flood, or drought is regarded as an occasional event, which cannot be deducted from the annual flow of savings for capital formation of the country. Thus the difficulty of finding suitable empirical correlates to the loss or damage to the environment has prevented their entry into National Income Statistics.
- (f) The difficulties in applying the economist's favoured tool of marginal utility theory expressed in the concept of the willingness to pay for an environmental investment as compared to its alternatives, the difficulties arising from unequal income distribution, so that the poor who do not have the purchasing power to pay need to be provided environmental growth and protection regardless of their inability (not unwillingness) to pay there; there is also the related ambiguity of the concept of consumer's sovereignty embedded in the marginal utility doctrine.

There are thus institutional, historical, conceptual and theoretical reasons for the neglect of the environment and the environmental factor by economists and in development economics. But this is not the end of the line. It is only fair to state that

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neo-classical economists have tried to deal with these problems (not very successfully), while the institutionalists have pointed to the irrelevance of the cost-benefit tool and have proposed alternatives.

It is now time to review briefly the effects on India's environment and its natural resources, that its growth centred development over six odd Plans, lasting over three and a half decades, have involved.

Land

The country possesses only around 266 million hectares of land which has any potential for biotic productivity of which a third has gone out of production due to denudation, waterlogging or salinisation, a further third is only partially productive due to some degradation, leaving 134 million hectares (which includes the last third) which are under cultivation and which must be saved from further deterioration. Hence, land for production of food, fibre and other needs is limited and shrinking from 0.33 hectare per capita in 1951 to 0.29 hectare per capita in 2000. India produces 130-150 million tonnes with 143 million hectares, whereas China produces 300 million tonnes from 112 million hectares. Grazing lands are rapidly declining and the large animal population having only 13 million hectares of degraded grazing land, roam over all fallow and uncultivated land, cultivable wastes and 36 million hectares of tropical forest lands — which is half of the total available vegetation. The country loses about 8,000 hectares of land to ravines every year at the rate of 0.5 per cent per annum. The unregulated mining of minerals for industrial production and export of industrial ore result in making an unquantified land area barren, the water polluted, air defiled and forests denuded.

Soil erosion is one of the serious problems of our land. Because of the growing demand for food and the unsatisfied land hunger, an additional 24 million hectares of marginal land, with their soil seriously eroded, have been brought under the plough. About 65 million hectares of arable and forest land are facing serious and intolerable soil erosion, due mainly to deforestation. The Department of Environment (DOE) has estimated that 6 billion tonnes of top soil is washed into the sea every year.

The continued denudation of forest areas and lack of vegetative cover has, according to the National Commission on Agriculture, increased the country's flood prone area from 25 million hectares at the start of the First Plan to 40 million hectares at the start of the Sixth Plan. DOE places the figure at 60 million hectares. This process of depletion of soil and vegetation is extending the drought prone areas, which DOE places at 80 million hectares (from 20 million hectares at the start of planning). To the Thar desert which covers an area of 31.7 million hectares, the process of desertification is adding 1.38 million hectares, with 22.8 million hectares being in the highly vulnerable category and six million hectares in the moderately vulnerable group.

Soil also suffers from nutrient stress and drain which is worsened by the Green Revolution technology. On top of the phosphate deficiency and metal and other toxicity,

soil scientists report that intensive cropping is removing important micro nutrients — zinc, iron, copper, manganese, magnesium — which forming a mere 1 per cent of a plant's weight, control various aspects of its growth and development.

The problem of waste disposal is also looming not so much as a separate problem of land or mineral or water use, but as an interrelated problem. There is the pollution of surface and ground water by agricultural, sylvi-cultural and mining activities, which are lumped together as 'non-point' sources. There is the problem of sewage in urban areas, and the various effluents of industrial units which are becoming important and require large quantities of land for treatment.

Forests

Probably the most severe loss in the land resource environment resulting from development is in the forest area. The Seventh Plan refers to 23 per cent of the geographical area of the country, that is 70 million hectares, being under forest cover, and sets a timeless target of 33 per cent, 100 million hectares of forest cover, to be achieved. This data about 70 million hectares is faulty, because the two imageries of the National Remote Sensing Agency of the Department of Space report that the area under more than 10 per cent tree cover decreased from 55.18 million hectares in 1972-75 to 46.08 million hectares in 1980-82; that the entire depletion took place in regard to good forests, with a density of 30 per cent, which decreased from 46.4 million hectares to 36.02 million hectares, while the poor forest area (between 10 per cent to 30 per cent cover) increased from 8.75 million hectares to 10 million hectares. This means an annual loss of 1.5 million hectares of good forests which places the real forest today at 33 million hectares, and not 70 million hectares, which the Department of Forests keeps on reporting mainly because of its including as the 'area under forests' all notified forest lands, including denuded and waste-lands. In fact, DOE reports that one crore trees a day are being felled. Further, the replanting rate is 0.12 million hectares over the thirty years of planning, which means that we are losing net over 1.3 million hectares of forests a year.

This worrisome depletion of the country's forest wealth has been brought about by a combination of development forces — substantial forest areas cleared and placed under the plough and plantations, big industrial and irrigation projects clearing and/or inundating vast forest areas, excessive felling caused by pressure of human and cattle population, and above all the increasing demand which the development of the economy has created for timber, pulpwood, firewood and forestry products generally. Between 1956 and 1981, 1.3 lakh hectares were transferred to various development projects and an additional 33,000 hectares to hydro-electric projects according to the Bastar forest department. Social forestry, a term invented by the National Commission on Agriculture in 1976, comprises farm forestry (trees planted by farmers on their farms), woodlots (trees planted by forest department), and community woodlots (trees planted by the communities). How far has this programme been successful? A careful and in-depth evaluation of this programme (World Bank 1984) shows that because of economic

factors, farm forestry has been a dominant component, (while woodlots cost Rs.3,000 per hectare and their return is 12 to 15 per cent, farm forestry costs Rs.1,600 per hectare with returns of 25 to 30 per cent); and that the primary beneficiaries of social forestry projects are large farmers, who overshot the farm forestry target by 3,430 per cent while the community woodlots achieved only 11 per cent of the target. Under these conditions, the first line of attack is to ensure that none of the remaining natural forests are exploited for industries, raw materials requirement, or for irrigation, or hydel generation.

This is also the clear and unequivocal recommendation of Department of Environment (DOE). It is not feasible any longer to exploit the remaining natural forests to start a new or to expand existing forest based industries; (DOE, 1988) whose needs can be met, if necessary, by import of the needed raw materials. The undesirable alternative is the forest department's recommended course which is to clear all existing forests and replace them with plantations of fast growing species, centred around the eucalyptus plant, which is environmentally disastrous as it draws on available water and nutrients, returns less nutrients to the soil and yields about half of what it is expected to yield. Forest destruction is the major cause of soil erosion, floods, siltation of reservoirs, loss of genetic diversity, and displacement of the most vulnerable sections of society — the tribals whose habitat is the forest. There is still time to turn around from this blind alley in forest policy and forest management.

Water

The country's water resources is another area where the available amount is not known. Given the availability of water we face certain problems with regard to water use and management. It is true that ground-water is less susceptible to pollution than surface water, but that also is polluted — being more difficult to detect or rectify. In view of the difficulty of rectification, prevention is by far the better option. WHO report that 23 million people die from water-borne diseases every year. In India 360 million people do not have safe drinking water, and NEERI reports that 70 per cent of inland water in the country is unfit for human consumption. As a result, the country loses 73 million working days, costing Rs.600 crores every year; it accounts for 80 per cent of its health problems caused by the water-borne diseases of cholera, typhoid, dysentery, gastroenteritis, hookworm and guinea-worm, and the annual death of 2 million children.

The major demand for water is irrigation which uses about 92 per cent of all available water, with industrial and domestic uses accounting for the balance 8 per cent. Irrigation has however given rise to a number of problems. The accelerated spread of tube-well irrigation has resulted in over-exploitation of ground water for irrigation leading the Director General of ICAR to warn that at this rate the foodgrain bowl of India, Punjab and Haryana, could become waterless deserts in two decades. Surface irrigation on the other hand is increasing waterlogging and salinity. The cost of these irrigation works is high, with large and increasing time and cost overruns, while the benefits are low and dwindling. One way forward that has not been fully explored is the conjunctive use of surface and ground-water.

Apart from direct costs being high, major irrigation projects, as also hydro-electric projects, involve large dams which impose environmental and human costs of their own. One complement to big dams which has not been fully explored are small dams, small hydro-electric projects — micro and mini hydel units.

Tanks are the traditional irrigation source in South and Central India, but this source suffers from neglect and little is being done (or can be done under present conditions) to counter the silting of tanks. Among the technological problems associated with tank irrigation are high water losses due to evaporation, due to percolation, and due to siltation.

Air Pollution

Pollution of the air in crowded cities like Bombay or Calcutta is popularly regarded as the worst form of air pollution. But recent studies show that the worst form of pollution is the wood smoke inhaled by poor rural women while cooking for the family. A tonne of particulates from a household wood oven may involve 500 times more exposure than a tonne of particulates from a coal fired power station. A study recently conducted in four Gujarat villages showed that the average exposure of women in the villages to the two major pollutants of wood smoke, total suspended particulates (TSP) and benzo a pyrene (BaP), ranged from 1,110 to 56,600 TSP, averaging 7,000 microgrammes per cubic metre compared to 120 microgrammes per cubic metre recommended as the safe limit by WHO. As for the second pollutant (BaP), on which there are no national standards, one understandable comparison is between a cigarette smoke involving 3,850 nanogrammes per cubic metre, while the average three hours that the housewife spends in cooking from a wood stove in the Gujarat village is equivalent to smoking twenty packets of cigarettes. There is thus a strong case for cleaner fuels, improved stoves and better ventilation. Growing trees in social forestry programmes which give less smoke when used as fuel, use of charcoal, designing the huts and houses of the poor with improved ventilation (as against its complete absence in most village huts), and above all increasing rapidly the use of the smokeless chulas, of which there are many types and designs, are the only way to save our rural women.

Power stations have emerged as a major source of pollution in several places. Most thermal plants (thirty-one out of forty-eight surveyed) have no pollution control machinery or measures, and if continued, will lead to acid rain over the country by the turn of the century.

Pollution begins with coal as it is mined in open-cast mines; when the coal is burnt, it releases poisonous gases. Further, the accompanying fly ash emission not only reduces visibility, it contains arsenic, cadmium, chromium, mercury, lead, etc. The desulphurisation process can reduce the emission of sulphur dioxide, but no plant has installed this equipment; electrostatic precipitators can reduce the trace elements, as their use by super-thermal plants shows.

Leaving behind the days of transport by bullock cart and horse driven carriage and later by the cycle, the country has now entered a phase of explosive increase in motor vehicles. One result is a sharp rise in air pollution. Most trucks run on badly maintained internal combustion diesel engines whose carbon monoxide can damage brain tissues, along with nitrogen oxide which can cause cancer. A lethal pollutant is lead. There are means of preventing these harmful emissions, which are enforced in all industrial countries. In India, legislation in this regard has been passed but is yet to be enforced.

Industrial Development

Indian industry has increased around ten-fold during the first six plans, and is projected to increase by 120 per cent during the next two plan periods. Hence, all attention by government, industrialists, planners and administrators is concentrated on means of accelerating industrial growth. But on this there is an environmental price to be paid, to which little or no attention is being paid in the country.

On the one hand, industry and its products have an impact on the natural resource base of the country through the cycle of raw materials exploration and extraction, transformation into products, energy consumption, waste generation, and use and disposal of products by consumers. The negative results that follow in the process—product pollution and depletion and degradation of resources— even when recognised is brushed aside, on the analogy that Europe, Japan and North America went through the same process to attain their current high levels of industrial, agricultural and economic development, only after which they have adopted a rigid, inflexible and comprehensive set of regulations covering all facets of their environment — the use of water, air, the land and its soils, rivers, seas, above ground and underground minerals, every tree in the forest, etc. This 'buy now and pay later' approach is based on the assumption that there will be enough time to repair the damage to the environment, at least of that part which is not irreversible, but as the Plans and Plan projections show, that spare time is simply not available.

On the other hand, the negative environmental impact of industrial activity is also basically a question of location, though admittedly, pollution can have a far-reaching impact both in space and time in many cases. The industrial tragedies that the country has faced — the Bhopal calamity, the Shriram case in Delhi, the Calico event in Bombay, the IRE radiation effects in Eloor, Cochin, *et al.* — are a function in part of their being located in areas where large numbers of persons live.

Equally important, it is not the industrialists who are responsible for this destructive location of the projects. First it is the local people who agitate and insist that the industry or project should be located in their area because of its supposed employment income-generating capacity. Second, it is the state government who mounts incredible pressure on the Union government and all concerned for the project. Thus, the problem of industrial

damage of the environment proceeds from a variety of official and non-official sources, with the industry itself playing a relatively minor role.

Actually taking just one industry, the fertiliser industry, which is the fourth largest in the world, but stands in contrast to the fact that India's fertiliser use is about half of the Asian average and one-sixth of the European average (which may be good), there are some lessons for the future to be taken note of. Thus on the one hand, with increasing oil finds and associated gas, there will be more fertiliser plants based on this resource. In addition to ensuring the fuller and more optimal use of the product, a long-term plan on the location of the plants which will not be ecologically destructive and environmentally damaging is needed. On the other hand, there is the question of the sustainability of chemical fertilisers and pesticide use. There is a strong case for greater use of organic fertilisers and biological fertilisers like SPIC's cytozyme which are less destructive of the environment.

More generally, the instruments of taxation, pollution charges, and subsidies for pollution control equipment as well as new technologies and industrial processes which reduce pollution are now available and can, and should, be used to control the deleterious effects of industrialisation. Where it has been tried, it is found that benefits have exceeded costs. This anti-pollution technology and those related to conservation practices hold out hopes of reducing the environmental costs of industrialisation if accepted and adopted by our industries. There is a strong case for environmental planning at the local level. Local authorities must be educated and made competent to evaluate alternative sites and do 'risk' assessments.

Energy

In the country, starting with what is called 'commercial energy' there are several problems. One is that it is finite. This will be even more serious after the second decade of the next century, depending on coal and water resources. In coal, the possibility of exhaustion of metallurgical coal would be around 2035 AD, in petroleum products, it is to be exhausted in twenty years.

A second problem is the nuclear energy component which is planned to increase to 10,000 MW by 2000 AD. This raises several questions of the danger of accidents, radiation risks, waste disposal, the link with nuclear weapons, on the basis of which the question of the nuclear energy option should be seriously considered. The possibility of exhaustion of the modern energy sources is true, and so the trade off between some part of the country's proposed development against a ban on nuclear energy arises. This involves a heavy foreign exchange outgo on crude and petroleum products imports. In this connection it is interesting to note that a UK Friends of the Earth study argues forcibly that UK should phase out nuclear power and develop its large renewable energy resources - solar, biomass, wind, hydro geothermal, tidal and wave power.

The use of energy conservation technologies and proper energy pricing policies can help reduce our energy intensity to 1, if not below it. On energy conservation, plans are well advanced on the use of energy efficient equipment. These now need to be operationalised and put into action. On energy pricing, the basic principles (which are not followed) are: (a) individual product prices to users should reflect the full, long-term marginal social opportunity costs including environmental damage costs that the use of these energy resources engender (b) subsidised prices on equity grounds should be carefully monitored to ensure that they are available to the small and marginal farmers and rural poor only, and for a defined period; and (c) meeting target rates of return on assets or an acceptable rate of contribution to future investment programmes. Energy pricing in the country needs to be renewed in the light of these principles to bring them into some kind of order.

On renewable energy, the Fuel Wood Committee estimates firewood at 50 million tonnes (India, 1986), which does not meet even half the cooking requirements of the country, urban users alone purchasing 14-20 million tonnes. This has led to sharply rising fuel wood prices, to suffering by the urban and rural poor, and to large scale forest destruction. Biogas is still in the beginning stage, as are the micro, small and mini hydel schemes. To the above should be added the energy generated by 80 million work animals. The non-conventional sources - solar energy, wind energy, geothermal etc., are still in the pilot stage, but they should be pursued rapidly and relentlessly.

The major problem of energy needs of the 80 per cent comprising the rural people and the urban poor (who make up 650 million out of 760 million of the people), is that they are restricted to traditional forms of energy. Almost all modern forms of energy - electricity, coal, petroleum products and gas are practically reserved for the minority of 20 per cent of the population, who use 54 per cent of 544.3 million tonnes of coal replacement which are the non-renewable sources. This means that the energy crisis is the crisis for the neglected 80 per cent of our people. The 20 per cent non-poor, who include the pumpset owners which is what Rural Energy Commission (REC) means, face no crisis; they face only load-sheddings, inefficient supply, poor production and distribution networks. In concentrating all attention as we do in our plans, budgets and economic surveys, on achieving the targets of coal, electricity and crude and referring to the load-shedding and other problems of the well-to-do 20 per cent, the energy needs of the majority of the population are bypassed.

The way out and the way forward

What is the way out of the rapid rate at which the country's environment and its resources are being mismanaged, damaged, destroyed and endangered as set forth in the preceding pages? Some broad outlines on this crucial issue may be indicated.

Data base

One of the serious lacunae faced by a study and analysis of the environment and also by attempts at more effective policy formulation and implementation in India is the lack of reliable data. This lack of a firm, statistical base is glaring, and is in part made up by interpolations, projections and guestimates.

The first urgency, therefore, is to survey, collect, collate in some case and so develop data on the precise state of the ten components and the twenty-seven sub-components of the environment set forth below:

Some environmental indices

<u>Theme</u>	<u>Needed Statistical Data</u>
1. Population	- Growth Rate - Arable land per capita - Real Forest Area per capita - Grazing land per capita
2. Soil Erosion	- National soil erosion index - Percentage of land affected - Tonnes of soil lost per annum
3. Fish	- Percentage of fish stock harvested
4. Forest	- Net annual change in forested area
5. Wild-land Management	- Protected natural areas as a per cent of national territory - Per cent of national goal - Per cent with feasible management plans. Adherence to international agreements concerning wild-land and wildlife management, as in the case of convention on international trade in endangered species of fauna and flora
6. Pollution	- National pollution indices - water - air - land - noise - National biocide poisoning - National biocide deaths
7. Energy	- Non-renewable energy use per GNP used - Renewable/non-renewable energy ratio

- | | |
|-------------------------------------|---|
| 8. Health | - Physical quality of life index |
| | - Incidence of occupational or environmentally caused illness |
| | - Environmentally related morbidity |
| 9. Urban | - Area of green space per city dweller |
| 10. Social condition (annual basis) | - Percentage of people in poverty |
| | - Percentage of under-employment of workforce |
| | - Distribution of assets per decile |

It is only on the basis of the compilation of the above data that the exact current situation of each resource and each facet of the environment will be known. It will replace the varying, often conflicting estimates now being used, as well as the guestimates that form the basis of many environment-related debates. The development of data will also show where priority actions need to be taken, and so help establish policy in an informed setting.

Replacing the Growth Objective

A second step is for economists and planners to help government and the Planning Commission replace the growth objective of planned development by a more composite index relating to employment, poverty and inequality and the social and economic inputs that make it necessary. There is usually a lot of discussion and worry over the failure to attain a targeted rate of growth, but there is hardly any attempt to explain why a particular rate of growth is so vital. It is just taken as given and every one, the parliament, planners, government and economists speak of the growth rate as deciding the well-being of the country. The worry over the rate of growth in foodgrains production is similar. The government was worried that in 1987-88, 12 million tonnes of kharif foodgrains were lost because of the drought, but proudly announced that buffer stocks were 14.1 million tonnes at the beginning of the year, and with a good rabi could end the year with 25 million tonnes as buffer. No one in the government or among the planners raises the question that this buffer stocking is possible because at least 300 million people who live in poverty do not have the means to purchase the foodgrains they need. There is no thought given whether these foodgrains will reach the poor or not, and what is the impact of this production on the soil fertility, water resources, chemical fertiliser and pesticides of the country which carry serious risks. Everything is expressed in terms of percentage growth - electricity, gas and water supply, mining, petroleum and gas, imports, exports, gross capital formation, etc. Thus we have been and are being conditioned to judge everything by growth in one or a few sectors, while ignoring its negative effects on other sectors and the accompanying impact on the environment, its resources including human resources, which are the cause of development and whose comprehensive safeguarding and development are needed for both the present and future well being. It is time that we now make a beginning to replace this growth criteria by one which measures what is happening to people and their environment both for today and the future.

A Holistic Approach and Analyses

This means the replacement of the present partial and sectoral approach under which we concentrate on means of increasing food production at any cost for this year and next year, involving the building of high dams, inundation of forests and displacing people, each of which is looked at separately and is seen as a small price to pay for increased food production. Thus the concentration on building the dam in the Silent Valley was set forth as a choice between man and monkeys (the building of the dam would have meant the extinction of the only 405 lion-tailed macaque monkeys in the world which live in the Silent Valley). In place of looking at the Silent Valley as a case of ecological preservation versus producing more foodgrains and power, it is possible to see that the destruction of the Silent Valley forests will reduce crop lands in Kerala through increase of soil erosion and the accentuated-cycle of drought and floods, as happened in Idukki and in other dams. It is possible to produce a similar quantity of foodgrain and not reduce people's fuel supply by building a number of small dams. Thus, in regard to any development project, it is not a question of either the project being executed or being given up, but a holistic view of each project will show its varied effects and suggest alternative courses. In other words, every project or programme should be looked at in its wholeness weighing its positive and negative features, both direct and indirect, short-term, medium term and long-term, incorporating in the final result the technological safeguards that have been developed, after examining the alternatives before a decision on the project is made. This holistic approach is embedded in the concept of sustainable development.

Sustainable Development

In contrast to the current doctrines and practice of development based on unidimensional growth, which serves the needs of the wealthy few and the non-poor minority, maintains the majority in conditions of poverty, and bases growth of agriculture and industry on the destruction of the environment and misuse of its resources, sustainable development meets the basic needs of all. It meets the essential wants of all people, particularly the poor majority, for employment, food, energy, water and housing; it merges economics and the environment both in theory and in decision making. Sustainable development ensures growth which is addressed to the people who live in poverty because it recognizes that poverty and inequality are the source of the ecological crises, the big or small, that we face; because it realises that poverty reduces the capacity of the people to use resources in a sustainable manner and thus intensifies the pressure on the environment. But the major instrument in degrading and destroying the environment are the non-poor, who consume most of the country's resources with the contractors meeting the demands of their forest-based industries, the industrialists destroying the forest to felling trees for their high and growing prices, the small group responsible for getting more dams built for irrigation and power, and more minerals mined particularly of oil and coal. It is these forces of modernisation, industrialisation, and urbanisation which are

destroying the environment. On top the mismanagement of resources and their use, add to their depletion and pollution, resulting in partial, sectoral and unsustainable growth and development.

On the general problem of the difficulty of measuring the damage to the environment which has prevented its entry into our National Income Accounts, the recommendation of the Report of the (K N Raj) Working Group on Savings provides the answer: "It is recommended that the available estimate of capital formation in India be adjusted for the "average" accidental annual loss to physical assets. For this purpose, a full enumeration of capital erosion, be it by way of flood or cyclone or fire, or by way of desertification of the land, either man-made or through repeated drought or by way of chemical or other damage caused by environmental pollution by industries or by mining, should be attempted by the national income estimator". CSO acted on it in February 1988, and released national income estimates which included consumption and destruction of fixed assets.

It is thus very necessary that a proper assessment of social costs as against benefits is done thoroughly for all projects and instead of being content with the traditional financial cost-benefit analysis such a cost-benefit analysis should serve the goal of sustainable development. The costs imposed by development projects on the poor should receive proper and adequate weightage. That is the only way they would have some chance of survival.

Some of the costs and benefits of such a project may be unquantifiable, in which case a cost effectiveness analysis or a qualitative analysis of benefits and costs can replace or supplement quantitative statements and can point to alternative options. Sustainable development also accepts the fact that many environmental projects may not only be unquantifiable in terms of benefit and costs, but also not capable of being integrated into projects as in the case of irreversibles and some externalities.

As alternative methodologies to the cost-benefit tool, three others are fast developing. One is risk management, as part of environmental management involving the notion of voluntary and involuntary risks, identification of risks, tools and techniques for assessing and quantifying risks and risk acceptance. A second alternative is environmental impact assessment which can generate alternatives for siting, processes, raw materials and products and improves decision-making by increasing the range of alternatives. A third tool increasingly promoted by UNEP, World Bank and ADB is the use of technical guidelines for incorporating environmental considerations in project planning and execution.

In order to catch all costs (and benefits) which escape the above analysis, it has been proposed that in addition to the social revised benefit cost analysis or its alternatives, some Safe Minimum Standard (SMS) be applied to every project, particularly in cases where it is difficult to value some ecological benefits like endangered species, so that it is environmentally acceptable and developmentally sustainable in terms of justifying preservation against its opportunity costs.

Thus, projects should:

- i) adhere to sustained yield principles to prevent over-exploitation, depending on the harvest of renewable natural resources;
- ii) avoid endangering plant or animal species;
- iii) compensate any disadvantaged group so that they are better off than before the project;
- iv) not compromise public health and safety to an unacceptable level for those affected;
- v) not contravene any environmental agreement to which the country is a party;
- vi) not affect the environment of a neighbouring country;
- vii) not clear, inundate, or convert natural areas designated or proposed as natural parks, biosphere reserves or other protected areas; and
- viii) avoid in the case of agricultural projects reducing productive potential of soils through erosion, salinization, alkalinization or waterlogging.

Sustainable Resource Management and Policy

Sustainable management indicates the possibility of turning around, and not only repairing the damage but of laying the basis for sustained progress; in this discussion, the separate treatment of each resource is for analytical clarity. In operational planning, a natural entity like a watershed which combines forest management, water management and land use management must be employed.

Land Use

Soil and water conservation techniques and mechanisms which can prevent soil loss and assist in uniform water conservation are now known and available. Here there are two problems to which management must address itself. The first is the non-involvement of the farmer because it is a state programme and because he is not aware of the invisible net benefit. The primary task here is to make the farmer aware of the fact that his land can produce more through soil and water conservation - at least 15 to 20 per cent more of yield - and to involve him in every such programme. The second is a social problem of uncertainty flowing from his status, as an unregistered tenant, a share cropper, a benami cultivator, a landless but sub-marginal farmer. Here the land reform legislation should be enforced as the corrective, and for that this group of farmers should be helped to organise themselves to ensure that the tenancy legislation is implemented.

Forests

The rapid deforestation can only be halted by the slowing, and in some cases, abandonment of large irrigation projects and industries demanding the clear felling of trees, which means the phasing out of contractual arrangements providing raw materials to forest based industry. Hence, forest policy and management, apart from crying a halt to inundation of forests and other forms of deforestation, calls for ecological

restoration of degraded and denuded areas and for redirecting resource use to meet the basic needs of the neediest. This means relating forest policy with agriculture, industry and energy policies, so that there is an integrated and unified land use, which will be addressed to the varying requirements of: (a) hill regions needing ecological stability through watershed protection, conservation of genetic diversity and protection of wildlife; (b) wastelands and other areas managed for industrial wood production; and (c) village areas through which the basic needs of timber, fuel wood, fodder and green manure are met. All this means that institutions and legislation should be flexibly developed to handle the management problems of the above triple area demand. It is only if the vast untapped energies of people are used, helping them to help themselves, that the seemingly gigantic task facing us in the forestry field can be tackled.

Water

The water resource crisis referred to earlier can be met with a series of well tried measures. First, the plentiful seasonal rainfall in the country can result in stability of water if there is: (a) reduction of instant surface run-off, and (b) increase of infiltration and percolation. The two are interrelated because the less the instant run off, the more the infiltration and the greater the recharge of soil moisture, ground-water and perennial surface water flows. Water conservation under these conditions calls for decreasing run off and increased infiltration. The soil is also a massive water reserve whose capacity depends on the vegetative cover and soil structure which determines the water retentivity of the soil.

All peninsular Indian rivers arise from the Western Ghats which is their catchment area and determine their ecologic and agro-economic situation. The intensive utilisation of the water resources of the Western Ghats through major dams has resulted in extensive submersion of valley forests in the river catchments, and the activities associated with the construction of the dams have resulted in irreversible fragmentation of the remaining forests and qualitative degradation. The inter-basin diversion of waters for irrigation and power generation has seriously affected the hydrological cycle along the Western Ghats, whereas in the Periyar basin, the drainage channels are short; adverse impact is immediate and drastic. Water conservation can, and must go beyond the engineering approach of impounding river waters in large dams, which does not solve the water crisis problem of marginalised people.

The water crisis in the country can be faced and water conserved on a sustainable basis through the use of ecological principle ensuring that water resources are not destroyed by land mismanagement or excessive withdrawals of natural resources (disruption of the hydrological cycle) or by excessive wastes flowing into it (pollution). Water can be conserved by avoiding its destruction and distorted use and respecting the hydrological cycle, the difference between essential and non-essential needs, and meeting on a priority basis the needs of the poor and marginalised. Alongside there is need to fill the gaps in scientific knowledge on the interaction between plants, soil and water in the country's ecosystem. This is a task for multi-disciplinary research.

Air and pollution control

The first task in air pollution is to establish pollution monitoring measures in all urban and semi-urban areas, on the basis of which allowable atmosphere loadings and emission criteria and standards can be established and administered. The fossil fuel emission can be contained by the use of the relevant plant, machinery and technology. As suggested earlier, the time has now arrived under which no thermal station, factory burning fossil fuel should be permitted unless provision is made in its capital budget for the containment of the pollutants. The most polluting source in Indian cities is the old and dilapidated internal combustion trucks. These should be strictly controlled and licences to ply them issued only to those that have emission control devices. Apart from pollution control regulation there is need for better town-planning (to ensure air movement), proper traffic regulations and greater use of mass transport.

Pollution also follows from unwanted inputs like river water pollution and acid precipitation from the emissions from factories, as the Ganges, Cauvery and Cooum studies show. Though the actual use of pesticides is low in the country, being about one-tenth of that of Japan, the Central Plant Protection Training Institute reports a rather high level of pesticide residues in 31.4 per cent of the food samples it tested. Pesticide pollution can be controlled through biological controls, using predators, parasites or pathogens, through growing pest resistant varieties and using certain cultural methods like burning crop residues, etc. Pesticides like DDT, BHC and Aldrin, contain high toxicity, and their use should be limited in wetland rice growing areas and in places where organic manures can be encouraged.

Industry

Sustainable industrial development calls for efficient resource use, which will generate less pollution and waste, and one that is based on the use of renewable resources which minimises the irreversible impact on human health and environment. This means that resource and environmental consideration must be part of all industrial planning, and be a part of the feasibility reports of every public or private sector project. The country has adopted legislation to control all forms of industrial pollution, and now it is for government and industrial associations like FICCI, Assocham and CII, to establish clear bench-marks, on standards and on air and water pollution, waste management, occupational health and safety of workers, and the manufacture, marketing use, transport, and disposal of toxic substances.

Pollution should be recognised by our industries in the public and private sectors as a cost which should be either directly and separately provided for in the capital budget, or should lead to investments in improved production and processes to increase efficiency and reduce pollution, or pollution containing machinery and equipment, in the kind of tax rebate incentives that are provided generally for new investment and for modernisation. Not all costs in all cases can be borne by the industry concerned. In some cases the costs are externalised, being transferred to the community in the form of

damage costs to human and workers' health, property and ecosystems. This is what is widely done by both public and private sector units in the country and this needs to be controlled and prevented. In other cases, which are still few and far between, the cost can be internalised by the enterprises investing in measures to prevent the damage and pass on, or share it, with the consumers. Hence the government should provide subsidies of various kinds to encourage industrial units to invest in preventive, restorative or compensatory measures. The Department of Environment has a major responsibility in assessing the environmental impact of every major project and its conclusions should not be overridden except by the highest review body. The country has a large number of small scale industries playing a major role. Their limited resources do not allow them to invest in machinery to meet environmental regulations, but in particular the metal working, machine tools, printing, tanning and dyeing industries generate a lot of pollution. For them, new technologies in micro-electronics might be of help, and here, in addition to financial and technical assistance, the government should provide them with information on the less expensive pollution containing equipment. In all this, the Pollution Control Boards have an important role in monitoring and making suggestions for reducing pollution.

Energy

In the energy area, some means of developing a sustainable energy future have been indicated. To start with, it is recommended that the country abjure the nuclear energy path; there are no means of retaining this very risky and potentially destructive energy source. Second, a low energy future should be the guiding factor for our plans, where investments are switched from exclusively investing in more thermal and more hydel plants, and more use of crude oil, to investing in the development and supply of highly efficient fuel saving end-use equipment, which are now available, and which would reduce by 30 to 35 per cent the country's per capita energy consumption. In fact such energy efficiency is a major item in energy policies for sustainable development. Reference to means of improved monitoring and use of technologies which contain pollution induced by the burning of fossil fuels, the renovation of truck diesel engines and means of controlling their poisonous emissions have been earlier referred to, and are reiterated. Environmental management needs to concentrate on enhancing the productivity of the traditional energy sector of biomass - wood, charcoal, dung and crop residues along with a more rapid development of biogas - on all which almost all the country's rural people rely. Most of these systems operate optimally at a small to medium scale, which is ideally suited for rural application and are labour-intensive, and should be given a much higher priority in our plan programmes, where only one-hundredth of the resources devoted to fossil fuels is available for renewables. The new renewable sources of solar, wind and geothermal energy also need to be rapidly pushed.

Some concluding thoughts

There is much to support the conclusion that the kind of development which our country has been providing is damaging its environment, destroying its resources, and at

the root of which is the poverty and inequality of its people. Hence, it has been proposed that our growth centred development plans should be replaced by plans aiming at sustainable development, which will be addressed both to safeguarding and enriching the environment and meeting the basic needs of the neediest in the society.

A second conclusion is that if sustainable development, and not development measured by growth is the aim, no time should be lost in assembling precise data on the environment and its composing resources, as outlined earlier. Third, while it is important to plan the use of natural resources for meeting human needs, it must also be stressed that fragile environmental areas must be preserved. UNESCO's biosphere programme envisions a biosphere reserve having three zones:

- (a) A core area which has maximum protection, e.g. the natural Shola forests in the Western Ghats, the coastal, mangrove areas etc., fall in this category.
- (b) A buffer zone for experimentation, for eco-restoration, etc.
- (c) A multiple use area where we achieve both conservation and development (UNESCO, 1984; Conservation Foundation Letter, 1987). This should be our conservation guideline.

Institutionally, environmental planning must be introduced in the planning at the central, state and local levels. All projects and programmes evaluated by the Planning Commission must be reviewed for environmental impact. The state governments must improve their planning capabilities since water, forests etc. are state subjects, in which the Pollution Control Boards should be major actors. Local authorities play a key role in environmental planning, because of their familiarity with the local terrain, their powers of land use control, their competence in assessing carrying capacity, risk to workers and communities and proper waste disposal. They must evaluate all the major environmental, economic and social impacts of projects and educate the public about the trade-offs that have to be made. Existing industries must be encouraged to create environmental and safety cells in their organisations. At the macro-level, sustainable development must address the problem of drought and climate changes. Environmental management can never occur without the participation of people and the planning referred to must not occur without the input of people. This is one reason for decentralisation of planning to the lowest possible levels consistent with Gandhian notions of Panchayat Raj!

A fourth finding is that political parties and governments - union and particularly those of the states - are primarily concerned with short term gains and results, while the normal bureaucratic resistance to suggestions for review and change result in a lack of coordination between ministries and departments, and active cross fighting between them on matters concerning eco-development and environmental innovation where an integrated approach is necessary. This places a special responsibility for ensuring sustainable development through action by voluntary groups - on apparently small and disconnected ecological issues which can blossom into decisive programmes.

A final thought is that there is a cost attached to sustainable development, which we, the non-poor, must pay. In money terms, it is not much, being up to 5 per cent of the project cost, which every activity must incorporate in its investment budget. A more serious cost is that we, the well-to-do, will have to give up some part of what we are used to - in energy, in consumer goods and in intermediate goods - which is giving up some part of non-sustainable development, so that we may pursue sustainable development, which will begin to meet the needs of the poor and the lowly.

Towards A Little Less Irrelevance*

The Relevance of Economics

THE economics profession in India today is at the cross roads. Like planning, its relevance to the condition of the country is being questioned.

What is this condition? I believe that we economists are agreed on the following endogenous ills of the economy.

- Rampant inflation
- Mounting unemployment
- A parallel economy
- Stagnant investment
- Declining savings
- Distorted distribution
- Massive poverty

I think we would also agree on the following exogenous factors which dominate it.

An institutional frame that results in an unjust social order and increasingly inequitable income distribution.

Personal and institutionalised corruption;

a runaway population growth; and

a society in mutation

Against this agreed picturisation of our economy, let us look at the tools of our trade. Here I shall take some of the most widely used Economics textbooks in our universities which embody these tools and which I shall use as a sample. The texts are usually divided into several parts, which in our universities we have retitled into macro economics, fiscal economics, monetary economics, international economics and so on. The first part of these texts normally deals with what it calls basic economic concepts which cover, *inter alia*, gross national product now being transformed into measure of economic welfare or net economic welfare, scarcity and the production possibility frontier, zero population growth, how the free enterprise system solves the basic economic problems, people's capitalism, the decline of poverty, business organisation and the giant corporation, trade union, growth of government expenditure and taxation. Here, under the guise of concepts, we are really familiarising ourselves with a particular set of institutions, the institutional frame of the affluent market economies and are being conditioned to understand their rationality, efficiency and automaticity.

* Edited excerpts reprinted from the Presidential address by Dr. Malcolm S Adiseshiah at the 57th All-India Economic Conference at Waltair, December 27, 1974. Reproduced with permission from copy right holders and publishers - Indian Economic Journal, Bombay.

A second part deals with the determinants of national income-savings, consumption and investment, marginal propensities to consume and to save, the multiplier, the paradox of thrift, business cycles and interactions of the accelerator and multiplier, the paradox of thrift, business cycles and interactions of the acceleration and income redistribution, the federal reserve or the central banking system and the control of spending, money, liquidity preference, marginal efficiency, fiscal policy and public debt. In this part too the tools we are acquainting ourselves with are those which project and imperfect competition, oligopoly, economic welfare and operate under certain forms and institutional structures, as set forth in the first part, of national income generation.

The third part deals with the price mechanism and the sectors of the economy, starting with demand and supply elasticity, equilibrium, individual and market demand, consumer's surplus, indifference curves, individual firms supply curve and market supply, non-optimality of competitive *laissez faire* pricing, theory of games and conglomerates. In this part we are introduced to some rigorous and useful static theory but it is only that with little relation to the real world anywhere. In all fairness it must be admitted that economics, like all, probably a little more than, the other social sciences in its search for quantifiable aggregates can only deal with abstract variables. Its behavioural pre-occupations whether they be the behaviour of Indian prices or the production function behaviour of inputs - are pre-occupations with the behaviour of abstract quantities.

A fourth part deals with distribution of income, land, labour, capital and their pricing, the aggregate or surrogate productive function in the US or the UK, marginal product theory, competitive equilibrium, rents and costs, real wage determination, interest determination, the various views of profits ranging from factor returns to surplus value. Here we are introduced to a labour scarce, capital abundant economy and the tools needed to understand its working. There are also some additional irrelevances in this homogenous, monolith concept of capital because it shuts off problems of unemployment, reswitching, wage levels - aligned or non-aligned - with profit rates, the composition and measuring of the capital-output ratio, capacity utilisation and monopolies - in all of which the economics profession in this country should be involved and should provide the inputs and parameters for the econometrician.

The next part in our text books usually deals with international economics - foreign exchange rates, gold and dollar standards, balance of payments, international capital movements, comparative costs and advantages, tariff studies, development and military aid, IBRD, IMF and EEC, the dollar, the deutsch mark or the yen glut and SDRs. Here we move into the dynamics of international exchanges which to the extent of 80 per cent is the exclusive trading relations between and among the 30 richest economies in our world based on a model of imports and exports always being in balance at least among them. (This was of course before the oil producers unbalanced this model balance.) But then again I must admit that these text books are a refreshing contrast to the diet of irrelevant orthodoxies concerning the high income countries on which I was nurtured as a student.

These texts today are written in lively, brash, seemingly irrelevant prose which lights up our understanding of the economies of these countries, particularly for the fortunate few of us who have been there. The apologetic note pervading the analysis of profits and other market incentives, the analysis favouring a growing public debt as a means of maintaining high employment level, taxes as a tool of income distribution, comparative advantage in trade theory not as an immutable fixed point in time and space but as changeable and changing by policy decisions, and the advocacy of what we used to call the demon of inflation and a positive fiscal policy to accelerate growth - these heresies of my youthful days are accepted economic platitudes of policy in these countries, thanks to these texts. Finally in the text there is a kind of appendix which deals with current economic problems - open economies and armaments, the theory of growth and problems of growth, development and underdevelopment, inequality, poverty and quality of life, full employment, and alternative economic systems. We have ourselves faithfully followed this chronological order in our curricula for what we term Macro economics et al.

I wish that for us in India these very attractive text books started with the last part which as I said reads more like an appendix than as part of the main corpus of economic wisdom expounded in the volumes. But then these text books have not been written for our use and so it is not surprising that the non-applicability of what we learn from them to the condition of our economy, which I have attempted to define at the start, stands out.

Our tools as a profession arise out of an economic and social environment which is unrelated to ours. The concept of the margin, for instance, arose from concentrating on the implications of scarcity, the allocation of scarce means to multiple ends resulting in the familiar paradigm of firms supplying goods and demanding factors in proportion to their marginal costs and households supplying factor services and demanding final goods as to equate their marginal utility. The optimality of competitive markets thus directs the economy towards the static equilibrium of prices, supplies and demands. There is further the problem of the abstract variables "the firm", covering both our large monopoly houses as well as pan shops around the corner, and "the household" covering the rich home and that of the landless labourer.

The scarcity and the static equilibrium theory were born in a society where labour was literate, mobile, highly organised and becoming increasingly scarce, where all available land was cultivated by private land owners in large or sizeable plots, where all economic sectors were heavily capitalised with spare capacity, and where there was a wild field for private, individual and corporate enterprise. Even so there was the problem of extending an exchange equilibrium theory to production and distribution systems, with of extending an exchange equilibrium theory to production and distribution systems, with their covert assumptions ignoring what were called "initial endowments" - a form of wishing away the reality of property rights, wealth holdings, and skills differentials. The scarcity in our society is of a quite different order. Here land is scarce, and all its products - wheat and rice, jowar, bajra, cotton and oil seeds, milk and meat - are even scarcer in their

availability as seen in the market, with their dual or multiple prices. I have always thought that there is a place for the use of the margin in one sector in our society, namely the rent of land, but even here one of our colleagues after recent empirical verification of the marginalist analysis to West Bengal agriculture warns us that it does not explain farm behaviour in a backward labour surplus economy such as ours, but might on the other hand lend support to "reactionary policy proposals".

Again, capital goods in their disaggregated "quorum of basics" are scarce, particularly in agriculture and those manufacturing sectors which are involved directly and indirectly in the production of goods needed by the poor majority. On the other hand, there is abundance of labour - both skilled and unskilled - the large majority of whom are unorganised. Under these conditions, the economic problem is not the static one of the optimum allocation of existing resources, of grubbing around the margin, of working out preferred positions by squeezing out this and adding that at the margin.

Our problem is to remove scarcities, removal of which is the function of technology, and technology till very recently did not enter the economist's universe of discourse or when it did as from the neo-classical times, it became part of the macro explanation for the agricultural expansion, the productivity of capital and the technical progress of the same affluent economies. That is, technology became the accidental inescapable determinant of income distribution of factors, of how rapidly marginal returns to labour versus capital diminished as a function of innovations and technical engineering possibilities.

For us, on the contrary, technology is no accident. It has become institutionalised and hence can become a positive variable. Equally our problem is to counter the imposed and induced scarcity caused by our institutional frame which invites the holding back and piling up of inventories, supplies and stocks to create further scarcities, which forces prices up and cuts back on the low consumption of the poor majority.

The tools of the static equilibrium or optimum models provide us with no means of dealing with the problem of rampant inflation. May I suggest that our starting point in the study of factors of production should be: (a) technology and its physical coefficients and (b) the institutional frames and the income distribution results, which is the notion of strategic aggregates.

Inflation

On the monetary front, some of us have proposed the classical remedy of a one time 30 per cent reduction in money supply together with a ceiling on future money creation. Given the rate at which money has been pumped into circulation. I cannot believe that anyone of us will disagree with this cry to halt this behaviour of our monetary system, which is like that of a drunken medieval monarch scattering what he considered to be largesse.

According to the RBI weekly statistical supplement, as on March 8 of this year, notes in circulation increased by Rs.1000/- crores in 12 months. As at March 15, bank credit expansion also crossed the Rs.1000/- crores mark during the busy season - September 1973-March 1974. But money supply like chickens come home to roost in a cumulative sense. During the last three years of the Fourth Plan, not only has national income risen by a mere 7 per cent (foodgrains by 6.4 per cent and industrial production by 9.5 per cent) while money supply expanded by 54 per cent, the rate of monetary expansion has been continuously accelerating - 11.8 per cent in 1970-71, 14 per cent in 1971-72, 15.17 per cent in 1972-73 and 17.7 per cent in 1973-74. This must stop.

There is also the unorthodox monetary remedy that is being tried in both affluent and developing countries elsewhere and is in part embodied in the index linking part of the economists scheme, and that is to ride with the inflation. This would mean an annual marking up of capital and fixed assets, savings, government securities, rents, mortgages, wages, salaries, dividends, profits in accordance with the percentage rise in the price index. It would also involve a mini devaluation of our exchange rate every six months to protect our balance of payments position. Whatever monetary measure we adopt, however, has to be part of a package of measures. This seems so obvious that I wonder if I am missing something. There are two ways of absorbing the 50 per cent excess money that has been pumped into circulation. One is to issue no further additional money and let our annual production growth - at the current 3 per cent per annum or the proposed 5.5 per cent per annum - catch up with increased money supply. This means an 8 to 10 years wait. The other is to withdraw or immobilise that excess from circulation now and let prices fall.

Second, could we also agree that non-inflationary development calls for not only no reduction in plan investment and particularly the kind of disinvestment forced by galloping public expenditures, but rather a higher level of time bound decentralised investment than what is proposed, in foodgrains, and its needed inputs and infrastructures including fertilisers, in edible oils, cloth, coal, functional education and rural health services, not by increasing the total plan outlay but by shifting investments from other sectors into these. In this complex of investment deepening and rescheduling, increase of foodgrains production by an annual 3 to 4 per cent has a special, probably first, priority on which the total anti-inflationary commodity strategy depends.

Third, could we agree to the urgency of establishing a structure of relative prices and a delivery system and distribution network so that the prices of non-essential goods and services are high, so that saving accrue from the reduced consumption of the affluent and minority and not as at present from the reduced living levels of the poor majority. Such a price policy must be accompanied by wage-salary-dividend and profits policy which as referred to earlier must be a disaggregated policy. In the case of profits, with prices out-running wages the resulting profit inflation calls for freezing inflation gains diversion. In the case of salaries and dividends there must be a freezing. Wages need to be raised for the unorganised farm labour sector and compensated in the organised sector for its decline in real terms to 99 per cent last year and lower still this year at the 1960 base.

1.2.9. Social Infrastructure:

With the increasing priority given by the Government to building up a sound social infrastructure, the State had made progressive gains in the spheres of education, health, rural water supply and housing. The 'literacy' level in the State by the 1991 Census was 55 per cent, going up from 47 per cent in 1981. With 48 per cent of their population 'literate', the rural areas were lagging far behind the urban areas (68 %). At the 'primary' level of school education the two welcome developments were the 'enrolment of pupils' increasing from 46.73 lakhs in 1982-83 to 56.72 lakhs in 1992-93 and more importantly the 'drop-out' rate receding from 23.14 per cent of enrolment in 1984-85 to 18.27 per cent in 1992-93. On the 'health' front, owing to the sustained efforts of the Government the 'birth rate' had come down from 31.4 per 1000 population in 1971 to 22.4 in 1990, 'death rate' from 14.4 to 8.7 and 'infant mortality rate' from 113 to 67 per 1000 live births. In the sphere of 'rural water supply' the goal of ensuring the 'water service level' of 40 lpcd still remains out of reach. Out of 75780 habitations, 30553 habitations had been fully covered and the remaining partially covered. Turning to 'housing', there continued to be a gap between the 'demand' and supply. The major State intervention to provide 'shelter' to the scheduled caste and scheduled tribe population is the Jawahar Velaai Vaippu Thittam (JVVT). Over the three - year period ending 1991-92 'group houses' numbering 1.39 lakhs were constructed under the Scheme to benefit these most vulnerable sections of society. Other schemes to provide dwelling houses and serviced sites have also been taken up.

1.2.10. State Finance:

The 'budgetary transactions' of the State Government for 1992-93 had ended with an overall deficit of Rs.217.62 crores. In the revised estimates for 1991-92 also a deficit of Rs.399.81 crores had arisen. It was a different experience in 1990-91 (Accts.) in that a surplus though small at Rs.1.00 crore had resulted. 'Revenue receipts' increasing from Rs.5879.52 crores in 1991-92 to Rs.6446.54 crores in 1992-93 (by 9.64 %) was more than offset by 'revenue expenditure' rising from Rs.6529.57 crores to Rs.7255.27 crores (by 11.11 %). Thus the Revenue Account for 1992-93 carried a deficit of Rs.808.73 crores. The deficit at this level was the highest since 1987-88, which was preceded by a surplus year in 1986-87. Receipts on the Capital Account amounting to Rs.2723.83 crores for the year were well above 'capital disbursements' estimated to be Rs.2252.72 crores, contributing to a surplus of Rs.471.11 crores. The transactions in the Public Account had also generated a surplus of Rs.120.00 crores in 1992-93. The surpluses in both the Capital Account and Public Account, however, had only helped to narrow down the overall deficit in the Budget for 1992-93 to Rs.217.62 crores. Additional resource mobilisation of the order of Rs.70 crores was anticipated in the 'budget' for 1992-93 on account of the various tax measures that were spelt out in respect of General Sales Tax, Registration Fees, Urban Land Tax and Electricity Duty, to name the more important ones.

