

**Climate Change, Development Models, “Us” and “Them” Games**  
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*An expanded version of the speech made by Professor Buddhadasa Hewavitharana, Chariman of the Institute of Policy Studies, on the occasion of launching and presenting IPS's publication, Mainstreaming Climate Change for Sustainable Development in Sri Lanka: Towards a National Agenda for Action, to the Hon. Champika Ranawaka, Minister for Environment and Natural Resources at the Ministry on 14-12-2009.*

I must thank you Honourable Minister for giving us a slot of time on a busy day like this when you are due to depart for the Copenhagen Climate Conference. Climate change and its possible adverse consequences have now reached crisis, nay, catastrophic proportions. What is in prospect is akin to the *kalpa vinasa* mentioned in our scriptures; but there is a difference. In my belief, whereas a *kalpa vinasa* is inevitable, being determined by cosmic cycle forces, the adverse repercussions of climate change are not that inevitable but preventable or modifiable to the extent that climate change is mainly brought about by imprudent actions of man. The corollary is that such adverse effects can be avoided or at least moderated to ensure continued survival of human habitats by means of intelligent action by the nations of the world, both separately and conjointly.

The Maldives demonstrated in dramatic fashion her fears by holding her cabinet meeting under the sea. It is the fear that one day her lands can get submerged by the rise of the sea water level consequent to earth warming. We must here remember that the Maldives have a prosperous economy with a per capita income surpassing that of Sri Lanka. On the other hand, Nepal demonstrated her fear of snow melting in the Himalayas by proposing to hold her cabinet meeting on the Everest. The fear is that the rivers of Nepal and northern India will get affected. These are holy rivers with a cult around them that sanctifies them. The great river Brahmaputra is the son of Mahabrahma as the name suggests. The holy Ganga is believed to have flown out of the *jatah* (the turban) of Mahabrahma. Also, venerated is the mythical river Saraswathi. It is not one that is physically present but is derived from the concept of creative aesthetics and fine arts of mankind as personified by the Goddess Saraswathi. A Himalayan peak is named Sagar Matha, Mother of the Oceans, implying that it is the snow on it that fills the oceans. Another river is named Krishna after Lord Krishna. In no other civilization one finds rivers and snow covered peaks venerated in this manner as in India. Though a great distance separates us in Sri Lanka from the north Indian river systems, we are in a way stakeholders in them. The Aryan settlements supported by the riverine systems of the mighty Indus, the holy Ganga, Yamuna and the great Brahmaputra are the cradles of our civilization, our culture and our religion Buddhism and its kindred Hinduism and Jainism.

Turning now to economics, given the alarming prospects of the consequences of climate change, the models of economic development/growth into which I have researched and on which I have taught, have to undergo change. In the standard model of economic development/growth, aggregate output (O) results from the aggregate production function that consists of six variables, viz. natural resources (N), capital (K), labour/human resources (L), technology (T), organizations (W), institutions (S). To optimize output from these six variables each of them has to be mobilized, activated and manipulated so that they will mutually reinforce each other in a

dynamic process. About manipulating natural resources (N) for this purpose, what was thought necessary was to increase the stock of natural resources available for use through discovery and to maintain these resources in prime condition. The maximization of the productivity of non-replenishable natural resources was to be achieved by conservation and minimization of waste and prudential management while at the same time managing the replenishable ones in very much the same way that would render growth sustainable. But now, with climate change and its adverse impact on environment, the methods of discovery preservation, prudential management and conservation, although absolutely necessary are not sufficient to face the challenges posed by such negative impacts. For that purpose we need to factor in new strategies of promotive, protective, preventive, proactive and pre-emptive policy measures or else output growth will fall and sustainability of development will be at stake. Why are we so concerned about the health of natural resources to go so far as to advocate such radical measures that impact on the fundamentals of natural resources? The reason is obvious. Unlike the other variables in the aggregate production function – K, L, T, W, S; N-natural resources is one that is liable to get directly affected adversely, in both its quantity and quality, often in an irreversible manner by climate change.

In the international arena as is well known, the emergent developing economies clash with the developed ones regarding the issue of preventive and pre-emptive measures and have ended up by trading accusations against each other. The developed countries which are early carbon emitters are under challenge by the developing countries which are late carbon emitters to shoulder their proportionate share of the responsibility for the damage from climate change. In Sri Lanka, over the decades we have witnessed a game that can be described as an “us and them” game played over who should share what responsibility regarding environmental damage. In the “us and them” game, “they” accuse “us” and “we” accuse “them” over issues in environmental pollution and damage. Reading the administration reports of colonial administrators and Sessional Papers on related issues from the mid 19<sup>th</sup> century onwards one sees colonial administrators denouncing *chena* cultivation to be a pernicious, meaning a highly injurious, method of cultivation carried out by ignorant rural yokels indulging in a wanton destruction of forests by burning them and causing soil erosion and damage to water courses. It was also condemned as being economically unjustifiable for it brought only low economic returns. They even went to the extent of saying that these ignorant rural yokels derived criminal thrills and pleasures by setting fire and seeing its bonfire effects of how trees will get burnt down, columns of smoke will rise and animals run for their lives. They never failed to add that all this destruction was only to produce a coarse grain millet-*kurakkan* which “they” accused as being only contributory to malnutrition and to the disease *beri beri* as in Africa as evidenced by the symptomatic protruding bellies among children even at their tender ages. This argument, however, was controverted several decades later by medical scientists. This is how “they” accused “us.” At the same time during the coffee era, from mid 19<sup>th</sup> century to its end, land was prepared for planting by burning down virgin forests, while enjoying the grand sight of “monarchs of the jungle” come crashing down. Vivid accounts of such doings were recorded by administrators and writers without any critical comment, for that was big time capital investment with high economic returns. When tea replaced coffee in the last quarter of the 19<sup>th</sup> century the “game” took a different turn with a new type of onslaught on the soil. It was found that “they,” the planters were getting their estates clean weeded by making their “coolies” use an iron hook called the *karandi* which scraped the topsoil, half to one inch, to uproot the weeds. Come the

next rains, the scraped soil got washed down the hills and into the river. Dr. Young, the Director of Kew Gardens, London, who was brought down in the early 1930s to study this problem made the forthright observation, “your country seems to be getting gradually washed down into the ocean.” Tests carried out by the Department of Agriculture to assess the silt content in the flow of Mahaweli waters at selected points yielded the shattering finding that the hilly areas stood liable to get washed down at the rate of 1 inch of soil per year. These findings, backed by the newly formed Agricultural Association and the local government institutions and the national legislature, based on the newly introduced universal franchise, “we” took our turn to accuse “them.” In 1973, when I sat as a Commissioner in the Royal Commission of Inquiry on Agency Houses, planters who testified before us were questioned by me as to the status of soil conservation in their estates. To this they replied, “Doctor, now the water in our drains runs gin clear.” “How so?” I asked. “We have dug drains to serve as silt traps.” “We” sure won that round by making “them” admit their fault and adopt correctives.

As for malnutrition and disease causing *kurakkan* grown by the ignorant rural yokels there is an interesting story to be added. In one of Martin Wickramasinghe’s early short stories named “*Paralu Paan*” an urban middle class diabetic patient was recommended by his doctor to eat *paralu paan*. He went all over the city in his car looking for it in the local bakeries but couldn’t find any. Ultimately in a well known bakery bearing an English name and patronized by the westernized elite he came across “brown bread” which had been made by mixing *kurakkan* flour with wheat flour. At that point “we” won the game over “them” by demonstrating that what they thought to be unhealthy food was in fact promotive of health. Today we see that the ball is back in the court of “them,” the developed countries, with “us,” the developing countries accusing “them” of owing “us” a carbon debt by having put us in jeopardy by emitting so much carbon to cause climate change. Whatever carbon debt that “we” may have owed “them” when we cultivated *chena* in Sri Lanka, Africa, Indonesia, Cambodia, Indo China and elsewhere is insignificant compared to the carbon debt that “they” owe “us” now through the emissions of their industrial factories. What we see is a trading of accusations, but can this “us and them” game ever reach a finish at the international arena? Will new development/growth models manipulating variable N in its fundamentals ever come into their rightful place?

The present report is the outcome of a workshop held in August. Our Environment Economics Division has been encouraged by our Executive Director, Dr. Saman Kelegama to prepare a report using the findings of the workshop. It was prepared by the Division’s Head, Athula Senaratne together with his research assistants, Nethmini Perera and Kanchana Wickramasinghe.