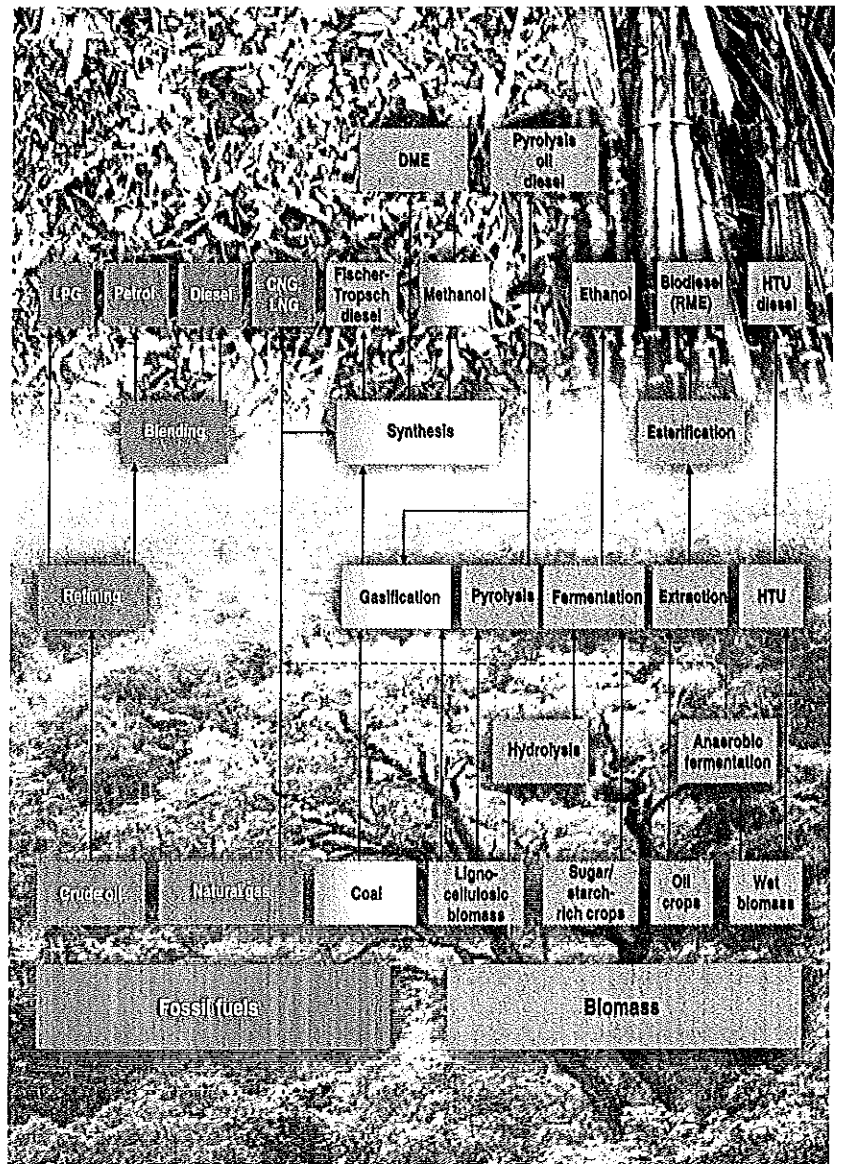


Energy for Sustainable Development

The Journal of the International Energy Initiative



Special issue on
biofuels for transport

Amulya Reddy, 1930-2006

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Amulya K.N. Reddy

21 October 1930 – 7 May 2006

It is with profound sorrow and regret that we announce the passing away of Professor Amulya K.N. Reddy, Publisher of *Energy for Sustainable Development* since its founding and the hand that guided the fledgling journal through twelve difficult years.

Amulya Reddy had written in detail and with more eloquence than we can possibly muster of his life and avocation as a scientist. We would only like to recall here that during his career at the Indian Institute of Science, Bangalore, he, with some like-minded colleagues, thought of steering Indian science in a direction relevant to the needs of a developing country. Thus began the founding of a series of associations and institutions devoted to the application of science and technology to Indian problems, especially rural problems. Many of these problems, in India as in other developing countries, turned out to be linked to energy. Out of the realisation of this link grew the idea of bringing together scientists in several countries in an institution that would work on energy for sustainable development – the International Energy Initiative.

Energy for Sustainable Development, conceived as a vehicle for disseminating the ideas of IEI, saw the light of day in May 1994. Its early life and sustenance was a constant struggle and we often didn't know where its next meal – the papers for its next issue – would come from. But Amulya Reddy's unflinching sense of purpose and faith in ESD saw issue after issue appearing, often seemingly conjured out of thin air. An initial period in which journal issues fell behind their nominal publication dates was followed by a period of Herculean effort when he bent his energies towards conceiving a series of special issues on themes and countries. He identified the subjects of the special issues, the guest editors who would source and shape the papers that went into them, and frequently many of the authors who would write those papers. He just as often had to cajole the guest editors as they – and he – had to cajole the authors into delivering their papers. In the process he ensured that no issue was missed and none more than marginally late in the last six and a half years.

Behind all this there was a desire to maintain the highest standards of quality, both in content and in presentation, of the journal. There was more: an anxiety to ensure that the subjects covered by ESD were relevant to the problems of developing countries, and that the pool of professional talent available in developing countries contributed as much as possible to the work published in the journal.

It was only in the last few months or so that, reassured by the fact that ESD was running smoothly and, equally, compelled to bow to the ravages of time on his body, Amulya Reddy could afford to leave the vetting of the material going into ESD and its production in our hands. Yet he did not completely relax: we gave him weekly progress reports on the next issue and he keenly studied them, as well as read the finished material before it went to the press, right until his final hospitalisation. The engine of ESD is now running smoothly and strongly, and all credit for this must go to his persistence and faith in its mission. As well, the many and diverse tributes to Amulya Reddy appearing in this issue attest to the powerful imprints he has left on individuals and institutions beyond ESD.

K. Krishna Prasad, S. Rajagopalan, Anand Doraswami, Svati Bhogle, U.K. Jayadev and Gautam S. Dutt
(ESD Staff past and present)

It is difficult to comprehend that I can no longer simply call and reach out to Amulya. It was only recently that the Indian Institute of Science celebrated Amulya's 75th birthday by honoring him with a seminar to felicitate his accomplishments over the last several decades. I had known Amulya for only a few of them, but he was a source of inspiration for my own research on energy, and the pursuit of its efficient use in the developing world. His dedication to the uplift of rural-dwellers was what first attracted me to his empirical research. I was fortunate enough to be able to visit Pura village, and witnessed his adroit scheme for securing biomass energy for the provision of water supply that matched the needs of the rural poor. It was inspirational, and provided an emotional source of strength to the visitors, and later on for my own work on energy use in the developing world.

Amulya consistently adhered to being a person of sincere and honorable repute, and was rock-steady in his beliefs, which many of us can only aspire to achieve. His ability to encapsulate complex ideas into simple statements and acronyms always made it easy for us to remember his insightful messages. INTAACT (information, training, analysis, advocacy, and action) was one such acronym that still governs the many activities that I pursue today. One motto that he did not formulate, but which does encapsulate his message in my mind is: help humanity through research, analysis, information, and teaching.

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Contemplating Amulya's passing, I am full of happy memories. He was an inspiration professionally, and our families were deeply linked.

I recall that Ted Taylor told him about Princeton. Soon after, by his reading, he learned that he might have a soul mate in Princeton in the young man running the Center for Energy and Environmental Studies who was thinking about "second-law efficiency" and the energy-consuming devices around us. Then he was in Princeton for real, and I told him I had sought out C.V. Raman in Bangalore in 1960. Amulya started educating me, and I learned lessons that have lasted a lifetime. Here are just three:

One must address "the needs of the neediest." With these words he was articulating Gandhi's message. He made this abstraction vivid with his work in Pura village, where he brought his ideals to life. He blended his social convictions with engineering reality at Pura. Then, he wrote of his work in ways that others could learn from. I treasure my copy of the BBC interview with him. And I have wonderful memories of the day trip he set up for me with Chelly in September 1997 to a village northwest of Bangalore where his Pura program was being replicated.

Western analysis of developing countries can be destructive of the development process. The alternative,

assigning analysis to local experts, is usually not even considered. But better analysis results when local analysts do the job. And, critically, local analysts build local capacity. He demonstrated what this meant by building ASTRA and then IEI.

No system boundary is ever big enough. New insights result from making it bigger. My favorite example is this one: many people understood the value of providing electric lighting for the urban poor, a far superior form of lighting to kerosene. But he, looking at the same opportunity from the perspective of the entire Indian energy economy, saw that backing out kerosene for lighting would also allow the removal of subsidies on kerosene, which, in turn, would restore balance to the modal choice between freight transport by truck and by rail, improving the efficiency of use of energy and petroleum. When a system boundary is enlarged, new coalitions emerge, and the opportunity for meaningful action increases.

These are powerful lessons, which I try to apply as often as I can.

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Remembering Amulya

On a Sunday morning in July 1974, I went to a meeting of students concerned with India's development, to listen to the views of a professor of chemistry in the famous Indian Institute of Science. This was in Bangalore, where I had recently joined the Indian Institute of Management (IIMB). The talk was by Professor Amulya Kumar N. Reddy, and it led to many interesting changes in my life.

For the first time, I heard about the social dimension of technology. While science – the principles of science – were universal, how they were harnessed to meet the needs of society contained in them essential elements of that society. Economists had long differentiated between need and demand, but in this talk the difference took on a new dimension. Demand, the ability to pay for what you want, was behind the production decision. What could be sold would be produced. And the methods by which it was produced would also follow the same principle. The scale of demand and relative factor prices would decide the production process – and this was technology. If technology was developed in a situation of labour scarcity – as in the US – it would save on labour. India had an abundance of labour, and its technology should use this abundant factor most intensively. Would imported technology do so? It set off a trend of thought and led to exciting lines of research.

After the meeting, some of us had a chance to interact with the speaker. When he found I was teaching economics,