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EDITORIAL

Sunsets and sunrises

Committee meetings can sometimes be educational. At one such meeting to discuss the inevitably mundane issues of academic life, I heard an intriguing phrase – ‘the sunset clause’. The speaker extolled the virtues of sunsets and went on to argue that sunsets are as welcome as sunrises; the less harried amongst us still hopefully, have the time to watch the spectacle. He was, of course, metaphorically suggesting that research projects, institutions and organizations (and undoubtedly individuals) must prepare for dramatic changes, necessarily demanded by the imperatives of the moment. In simple terms, a sunset clause would translate to an enlightened ‘exit policy’, that would allow termination of a program or project, when there is a clear perception that the guillotine may bring about a quick, merciful conclusion. But, as we all know, the task of prematurely terminating any activity once started, is neither easy nor pleasant. Sentiment, accepted mores of functioning and the general feeling that a project once started must continue forever (at least until its protagonists tire), always stand in the way of precipitous decisions that favour quick closure. The larger the investment, the more difficult it is to decide when to stop. If a large sum of money has been spent on a project that appears to be going nowhere, few have the courage to suggest that it is time to cut losses and retreat. The normal tendency is to pump in more money, in the hope that this will resuscitate an already moribund project. This philosophy has been the guiding principle in determining the course that public sector organizations have taken over the years; it is also a style of operation that has found comfortable acceptance in other spheres, including the areas of higher education and scientific research. Should there not be a clearly defined ‘sunset clause’, with the precise time of sunset being clearly evident, well before mega projects reach an ‘intensive care’ stage? Many strategic research projects, shrouded in secrecy, survive long past the stage where euthanasia is warranted, both on technical and conceptual grounds. (The recent, publicized failure of the US antimissile project is reassuring; sun-

set clauses are apparently not easy to apply even in the country which, presumably, is the birthplace of the idea.) Others, in more visible areas are so large that indefinite continuance is guaranteed by their sheer size. Sometimes, the successful completion of a project promises so much, that even normally hard-headed critics are compelled to remain silent, for fear of being branded as obstacles in the path of progress.

But research projects are not the only area of concern to science, where the sun must occasionally set. What about institutions, programs and areas of activity? In Germany, the Max Planck Institutes operate under the remarkable (and apparently brutal) system, where the area of focus is determined by the research interests of the Director. When the head of an Institute is replaced, the entire focus of activity shifts; it is fairly common to change the field of research of an entire institute by this somewhat unique procedure of building organizations completely centred around a single individual. The Americans have a more subtle approach, where the ‘tenure system’ ensures an acceptable level of scientific accomplishment before confirmation of the state of permanence of a faculty member’s position in a University. The ‘sun sets’ in the US most often on individuals and not on institutions. In India, however, matters are different. The sun rises on many new programs and institutions and almost never sets anywhere. Programs once created, rarely change direction; learning from experience is not common. Most institutions reach comfortable middle age and settle down to a long interminable twilight. Programs and individuals, to an alarmingly high degree, follow the same course. Rarely is a program terminated. New programs are generated without unduly disturbing existing activity; a consequence is that many institutions are overstaffed and overpopulated, bursting at the seams with a basket of commitments that cannot be easily met. We have funding agencies which have taken on a frighteningly broad range of tasks, that were hardly envisaged in their original mandate; overseeing research institutions, distributing research funding, building common projects

with industry, promoting science education at all levels and developing international collaborations – multiple responsibilities that overload an already fragile administrative fabric.

Inside academic institutions new courses and research programs are often started in a sunrise phase, the first flush of enthusiasm reminding one of Wordsworth's memorable line – 'bliss was it in that dawn to be alive'; but few worry if the sunset clause must operate anywhere else in the organization. The laws of conservation, so beloved in the physical sciences, appear to be strangely missing in discussions on growth and development within scientific institutions. At an individual level, the absence of any operable 'sunset clause', other than retirement, has led to the increasing load of 'deadwood' in most laboratories and academic institutions. The public sector undertakings (PSUs), some years ago, spoke wistfully of a 'Voluntary Retirement Scheme (VRS)', a device which might have permitted both 'sunrise' and 'sunset' to occur synchronously. In practice, the VRS schemes only saw the more employable individuals (presumably the more competent) leave for the private sector, resulting in a further deterioration of the organization. The new attempts at disinvestment and privatization are an inevitable consequence of a system that never had any built in 'sunset clauses'. In research departments at academic institutions across the country, the process of decay is offset to a considerable extent by the steady influx and efflux of students, who work towards Ph D degrees. The 'sunset clause' is implicit in Ph D programs; although

some students prolong their periods of stay, there is often a clearly spelt out upper limit. It is this group which, in a subtle manner, changes the direction of research in a laboratory, by dropping unproductive areas and following fertile trails. Unfortunately, much of this change of direction occurs in open-ended, low budget, basic research, which is generally of limited consequence. The process of change and reevaluation is almost missing at the higher levels of organization in our institutions. In the Universities, the sheer size of decision-making bodies and the compelling need for consensus on all issues, effectively ensures that change rarely happens. In national laboratories there are usually sufficiently large vested interests in maintaining the status quo. We therefore, seem to live in a twilight zone, where the sun rarely rises, but certainly never sets.

Sunrises and sunsets have been immortalized in verse; there is a certain sense of melancholy in contemplating the end of the day. Thomas Gray's sombre reflections in the *Elegy* may be worth recalling:

*'The curfew tolls the knell of parting day,
The lowing herd winds slowly o'er the lea,
The ploughman homeward plods his weary way,
And leaves the world to darkness and to me'.*

But, there is a case for sunsets if we want sunrises.

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