

sonal commitments. The *modus operandi* can vary: Packing committees with the faithful, shifting goal-posts to suit the shot, etc.

What is wrong with the 'organizations' supposed to be looking after the interests of scientists and scientific development in our country? Can we honestly claim that merit in research is *consciously* being encouraged by providing funds, facilities and freedom to pursue the chosen field? The sad fact is that merit-based promotions are out; they are supposed to be contra-democratic; everyone has a right to reach the top – regardless of his or her competence. Transparency and innovation are the two words most bandied about, but least observed in practice.

The malaise may not yet be widespread. But the wrong role-model may corrupt a whole generation of youngsters. The most urgent task now before us is to give proper guidance to our students. What better advice to give them except to plead with them to imprint in their minds the golden words of the grand lady who lived two thousand years ago:

'What we have learnt, is like
a handful of Earth,
While what we have yet to learn
is like the whole World.'¹

Perhaps our senior scientists would also do well to remember this when assessing their own research contributions!

1. Saint Avvaiyar (Tamil poetess, 1st century B.C.) quoted in an article by Blumer, M., *Angew. Chem. Int. Ed. Engl.*, 1975, 14, 507. Almost nineteen hundred years later, Laplace is reported to have echoed the same thoughts – "That which we know is a little thing; that which we do not know is immense". (Will and Ariel Durant, *The Story of Civilization: The Age of Napoleon*, p. 324).

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Why should we not ignore the criticisms against nuclear defence preparedness?

The debate on nuclear armament issue seems to suggest that we would rather intellectualize our cowardice than look for ways to strengthen the economy by adopting a work culture with genuine personal commitment to our profession.

Nuclear armament is, no doubt, an expensive business. Moreover, as a burden for the next generation to update and sustain, it is likely to be even more expensive. However, on many occasions our silence and inaction causes considerable financial loss both to the Government and to us personally. For instance, it is highly unlikely that the academicians were unaware of the recently exposed corrupt practices and scandals since a higher level functionary of the university admitted⁶ that he did not investigate the matter because it was giving about 3.5 crores annually as revenue to the University.

This indifference has not only created more underqualified degree holders, but has ensured a much greater amount of loss to educational institutions in the future due to the perilous snow-balling effect. Not that we like such losses in either universities or other spheres of activities, but expect the Government alone to take corrective measures.

The arguments posed by some to decry¹⁻³ the pronuclear stand of Udgankar⁴ and Balasubramanian *et al.*⁵ seem to be consistent with our mentality sketched above. For instance, Chatterjee and Vyasulu¹ do not feel it necessary to refer to the way the money in education is being drained out.

Does it occur to our academicians that the number of colleges that sprang up to give these devalued degrees, and the earnings from them subsequently, if estimated for even 100 universities would probably exceed our expenditure on projected nuclear arms programme?

However, it needs more courage to set right these centres of learning than criticizing nuclear defence programme; it demands a clear sense of purpose, enlightened spirit without forming caucus, and persistence of efforts until we establish a proper tradition. Why not raise a debate on that too? How many of our academicians antagonists of Indian nuclear arms programme publicly criticized this pillage, now probably ritualized, with even half that gusto? On the contrary, Chatterjee and Vyasulu¹ suggest we invest more money in these thoroughly corrupted educational pro-

grammes without a shred of doubt on its wisdom.

In my view, another reason for anti-nuclear stand by many is their immediate personal benefit rather than a genuine concern for global deescalation of nuclear arms or concern for the poor, which link their or their children's career in Western countries.

It is easy to raise a debate on a Government programme if we fear a financial burden on us because popular support is assured. Since the Government's fate depends critically on public image orchestrated by the media, a limited bravery of the intellectuals turning vocal in such issues is possible without much risk, particularly if one happens to agree with the official position of the all-powerful US Government!

Why do we behave the way we do? Probably because we fail to see far enough to appreciate that institution's interests serve even our personal interests decidedly much better in the long run. Paradoxically, while watching the decline in the quality of higher education in present institutions, we are proud of the extinct ancient institutions like Nalanda and Taxila. One wonders if the ancient ones also decayed for similar

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reasons – that of inverted priorities in the minds of learned teachers as is abundant currently. Those who could not resist the decline probably served silently till they were eventually outnumbered by corrupt and unenlightened lot.

Unfortunately, these criticisms may not be taken seriously because of my affiliation to the nuclear establishment. The reason for indulging in this debate, however, is to point out the curious observation that those who should have been equally or more concerned about

blatant corruptions in their own institutions much earlier than Pokhran-II, the cost of which is unlikely to be significantly less than that projected for future developments in nuclear arms, do not know precisely how insincere their arguments appear once the facts are bared in another equally real perspective where they are the main actors.

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1. Chatterjee, S. and Vyasulu, V., *Curr. Sci.*, 1999, 77, 325.
 2. Pati, V., *Curr. Sci.*, 1999, 77, 324.
 3. Ghosh, J. K., *Curr. Sci.*, 1999, 77, 323.

4. Udgaonkar, B. M., *Curr. Sci.*, 1999, 76, 154–166.
5. Balasubramanian, R., Karandikar, R. L. and Raghunathan, M. S., *Curr. Sci.*, 1999, 76, 1290–1291.
6. *The Times of India*, 31 July 1999, p. 9.

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Sanctions – A personal experience

Differences between governments enhance, rather than diminish the need for freedom of scientific exchange as underscored by Lerch (*Curr. Sci.*, 1999, 77, 485). In this regard, Lerch raises the issue of an Indian scientist who was not permitted to attend the Centennial meeting of the American Physical Society. My experience suggests that the concerned scientist could not have visited the US *even* if his Director had granted his consent. The US visa authorities would disqualify him as a representative of an Indian government office that enjoys DAE funding.

The US State Department issued a policy directive in the wake of Pokhran II to discourage interaction between the Indian and US scientific community. This directive does not appear to be a public document, thereby converting an otherwise unambiguous process of visa processing into a grey area. At the discretion of consular officials, it can apply to any individual working in any area even if the original intent may have been to cover nuclear weapons and missiles. I had a personal experience of this regime in June 1998 and once again a whole year later. On both occasions, I had filed my Exchange Visitor papers with supporting documents from my US sponsors including US government offices. On the first occasion, I was called for a personal appearance only to be

told that my country exploded the Bomb and that my travel required specific State Department approval. That did make me feel very important, but only momentarily, because the Visa Officer also cancelled my Business Visa, with a suggestion that it would be renewed 'free of charge' as soon as an Exchange Visitor visa could be issued. This is like a Pizza Hut executive being advised that he can visit his Indian franchisee as soon as it can be determined that he can be allowed to work as a Visiting Scientist at BARC.

Lack of a business visa comes in the way of visits to meetings of professional societies. It also comes in the way of transacting business with our North American distributor. Denial of a business visa therefore constitutes a restrictive trade practice, which governments and industry are sensitive about.

Having to deal with our own 'taluk offices' which work like feudal outposts, I have a lot of regard for the way US government offices work. Civil servants are known for their humility and grace (at least within the US). Paper work is kept to a minimum and there is logic in procedural requirements. My 'consular' experience was apparently an aberration. However a repeat experience a couple of months ago (complete with the call for personal appearance and the

sermon cited above) brings back memories of the erstwhile Soviet Union. The US Visa Officer does not put down in writing the true reason for declining your visa. It will have to be 'Insufficient information' – somewhat different from a bland 'nyet', but nevertheless, with the same connotations. Given the tens of thousands of 'one way' US visa seekers, one can understand why the Chennai Consulate General never responds to calls, mail or FAXes. At the same time, one cannot understand why the need for a personal appearance when a decision was apparently already made. As far as sermons go, we already have 50 channels of cable television, many emanating from the US and sounding much more convincing than an official can hope to be. Besides, many middle-class Indian families (including many senior civil servants, academics and swadeshi-oriented politicians) have their children already in the US or working on a one-point agenda to get there. It would follow, that the million-plus Indian community in the US would be a good starting point to influence policy making in this country.

Travel restrictions interrupted a 10-year collaborative effort, which was rewarding to both sides. Progress was hampered on fruitful research that had nothing to do with weaponry. However, personal relationships developed over