

Sanctions

Apropos the editorial, 'Sanctions', (*Curr. Sci.*, 1999, 76, 1171), I would like to state that as the then President of the National Academy of Sciences, India, I had personally written to the Prime Minister, Minister for Human Resource Development and Science & Technology and to the President of ICSU regarding the unfairness of the restrictions on Indian scientists visiting the USA. I was authorized by the Council of the Academy to do so. These letters were duly acknowledged with promises to take necessary steps to remedy the situation. Even ICSU reiterated their commitment to 'free circulation of scientists' and agreed to take up the matter with the US Academy of Sciences, the adhering Academy.

I had discussed this matter with S. Varadarajan, the then President of INSA who had also taken necessary steps in this regard. This included writing to the President of US National Academy with which INSA has bilateral cooperation. More information about this could be obtained from him.

I write this to put the records straight in response to the comment about the action taken (not taken) by the scientific community of India. I take the liberty to suggest that prior to putting in print your personal perceptions on such matters, in all fairness, attempts should be made

to verify the facts with concerned people.

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Editor's note: Signed editorials are necessarily based on personal perceptions. Academies have a responsibility to inform the community at large about the steps that are being taken to counter the effect of 'sanctions'. My editorial was based on a request by a group of affected scientists, who are completely unaware of any efforts being made to alleviate their plight.

Counterpoint: Lest we forget

My initial reaction on reading the opinion of S. R. Valluri (*Curr. Sci.*, 1999, 76, 1181-1183), a distinguished aeronautical engineer and a former director of the National Aeronautical Laboratory, Bangalore, was one of shock and disbelief. I believe that his statement is illogical, incoherent and incorrect and such an opinion, if supported by the scientific community without discussion, will be positively detrimental to our national security and foreign policy.

1. Valluri says - Detached introspection by many scientists after the initial euphoria has raised serious doubts about these developments (recent nuclear explosions) against the historical background and potential future consequences. The introspection of these scientists, is not, however, really 'detached' since most of these scientists have their own political biases.
2. The so-called initial euphoria is only natural in any national success, whether it is Pokharan I or II or a PSLV launch or an Agni trial. If this euphoria is not there in an event as important as Pokharan II explosion, we should worry that some thing is lacking in us.
3. Valluri says - The recent explosions can lead to dangerous situations to

humanity at large apart from creating avoidable adverse situations for us. 1 or even 100 more nuclear weapons in India do not materially affect the size of the nuclear arsenals existing in the world. It only gives a new equilibrium position in the world, where India's concerns carry a greater weight. The point that the actions of the scientists involved in these activities have profound implications to the mankind is more applicable to scientists working for the government of the USA.

4. Valluri notes that we live in a virtually unipolar world and we do not have any leverage in this world. The bipolar world of yesterday has become unipolar today and may become a multipolar world tomorrow. A country of our size cannot and should not be allowed to be bullied by the virtual super-power. This can happen if and only if we become stronger. Guarantees from the so-called 'big five' have no meaning in the ever-changing real world.
5. The destruction let loose by using atomic weapons in Hiroshima and Nagasaki in 1945 by the US is only too well known and there is no doubt in anybody's mind about the consequences of a nuclear war. But this has not made any

one the wiser in the post-world war II era and the USA and the USSR have become two centres of power only because of their nuclear arsenals. China earned its due place in the Security Council, only after it demonstrated its strength based on its nuclear capability. The world is not democratic and even a country of the size of India will not be heard as long as it is weak.

6. Valluri says that the code word BUDDHA SMILED is cynical. We failed the Buddha, when we abandoned the cause of Tibet. In fact, it appears that Valluri has not appreciated the Buddha's stand on *Ahimsa*. He advocated it as a human value (*parama dharma*) and not as a principle of statecraft about the right of a nation-state against aggression and self-serving international policing by countries which have brute force strength and no rivals.
7. It is childish to compare the costs of *Navodaya* schools and atomic weapons. What is needed is the optimum utilization of defence budgets to meet our tactical and strategic objectives. (For instance, one can as well compare the cost of *Navodaya* schools and SPG protection costs of our politicians and their families - even those of ex-prime

ministers and their worth to the nation as perceived by the common man!)

8. The conclusion that compulsions of politicians and some scientists to exercise such options are responsible for Pokharan II is erroneous. The decision to conduct the tests was no longer the manifesto of a party, it was the mandate of the people of India, who elected them.

9. Valluri's conclusion that we started the nuclear race in south Asia is a dangerous doctrine. The environment in which we live with enemies on all sides demands that we are superior in every aspect including nuclear arms. The per capita cost in competing with us should be unaffordable for our smaller neighbours.

10. The scientists in government-funded organizations have no business to criti-

cize national policies and their democratic rights as free citizens of the country are subject to the constraints imposed by the secrecy requirements of the sensitive projects they are handling. They should be particularly careful in commenting about things they do not know such as the foreign policy and the government policies on national security and defence. It is entirely appropriate for organizations to take disciplinary action on employees violating their conduct rules.

11. Valluri's letter amply demonstrates the fact that scientists cannot be entrusted with the task of foreign policy decisions. The complexity of the real world relationships between nations, the course of history leading to wars, the evolution of foreign policy and strategic issues con-

cerning development, deployment of nuclear weapons and possible nuclear disarmament—all these need consideration of people specialized in these areas. Scientists paid by Government should do their job, whether it is the job of designing and testing an ICBM or a nuclear weapon. In fact, the *Bhagavad Gita*, which Valluri quotes in the context of Oppenheimer's reaction, may be used to justify the proper course of action of Indian scientists.

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Young student scientists programme

Apropos the editorial of 25 April issue of the *Current Science* (1999, 76, 1059–1060) wherein the encouragement given to young scientists (in the age group of 32–45 years) by the various government agencies as CSIR, DBT, etc. has been highlighted to the end of which there was a cartoon by Ayan Guha in which the 'youngest scientist' award has been illustrated. In this article, I would like to communicate that the so-called youngest scientist award programme has already been implemented in the state of Tamil Nadu. The programme titled 'Young Student Scientists Programme' (YSSP) is the brainchild of the Tamil Nadu State Council for Science and Technology (TNSCST), Chennai, an autonomous organization of the Government of Tamil Nadu for the promotion of science and technology in the state.

The objective of YSSP is to inculcate scientific attitude in the minds of school children and to promote their aptitude in science so that eventually they would be motivated to choose a science-based career in their life. To implement this scheme, the TNSCST has rightly chosen pupils in schools who have completed their VIII standard, because at this age they would be amenable for shaping into any form that we desire. Their intelligence, concentration, vigour and vitality

could be channelized for their positive development by putting them in the right track. The programme was first conducted at the Anna University, Chennai and Alagappa University, Karaikudi, during 1996 and 1997, respectively, and was extended to five districts in 1998. During the current year, this programme is being implemented in 15 districts and it is poised to cover all the districts in the state of Tamil Nadu from the next academic year. This programme is fully sponsored and financed by the TNSCST and the Ministry of Human Resource Development, Government of India. From each revenue district 50 students are selected (25 from schools located in rural areas and 25 from urban areas) and they are given intensive orientation in science subjects.

As the Project Director of YSSP of Madurai District, in this article I communicate the highlights of this programme. For selection of students to this programme, the officials from the Government's Education Department wrote to the principals of all schools in Madurai district asking them to nominate two top-ranking VIII standard students from their school and 313 nominations were received. The nominations were classified into rural and urban categories based on the location of the schools. The

details of nominations received are presented in Table 1. An entrance test containing 100 objective type questions was administered on 21 February 1999, at The American College, Madurai, which is the nodal agency for the Madurai district for implementing the YSSP. Based only on the achievement of pupils in the entrance test, 25 students were selected each from rural and urban category. It was interesting to note that 25 boys and 25 girls had been selected. The YSSP at our centre was held between 3 May and 2 June 1999. The same batch of students will undergo orientation for two more consecutive summers.

The academic programme of YSSP is completely residential in nature. The boys and girls have been accommodated in two hostels in our campus. Their activity starts at 6 am and ends at 9 pm.

Table 1. Nomination received from various schools in the Madurai district of Tamil Nadu for the YSSP

Nominations received	Category of schools	
	Rural	Urban
Boys	88	89
Girls	65	71
Total	153	160