



National University of Computer and Emerging Sciences Islamabad Campus

FAST Celadon conducts an exclusive interview with Dr. Pervez Hoodbhoy

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- 1. Lately, you have been in the limelight for censuring the HEC on a number of occasions. Can you tell us the reasons for your disapproval of the reforms adopted by the HEC? These reforms, incidentally, have been applied by a lot of people in Pakistan.
 - Initially I was very hopeful about the prospect of an educational revolution brought about by the HEC. Indeed, the HEC had an opportunity to do wonders. The increase in its budget was astounding the allocation was increased by a factor of 12 to 15 times over six years. Also, I had known Dr. Ata-ur-Rehman, maybe for 20 years, and had assumed he was sincere in his efforts. We had often discussed the measures that needed to be taken to alter the landscape of higher education in Pakistan. So, from 2002 to 2004, I had high expectations and was very supportive of his efforts. But after that I gradually became more apprehensive and worried. I finally quit because of the following:
 - A) The HEC policies aimed at a huge expansion in numbers. This included universities, enrolled PhD students, and papers produced. But quality declined precipitously. The research papers that were being churned out by the hundreds were often cut-and-paste, rehashes of stuff done earlier, etc. Very few contained worthwhile research. Increasing the PhD production many-fold meant that many were scientific illiterates. In fact, I think that several HEC approved PhD supervisors do not deserve a PhD themselves. To see the quality of science understanding of our PhD graduates, just see their performance in international examinations, such as the GRE subject test. A Pakistani university can award a PhD degree if a student attains 40 percentile at the end of his PhD program. But in a US university, the entering mark is almost always more than 70 percentile.
 - B) A lot of HEC programs, which sounded good, were impossible to implement because of fundamental constraints. Take university expansion. In 1996 there were 22 public sector universities in Pakistan. Now there are more than 50. To show an increase in numbers, colleges were transformed into universities without any infrastructure and faculty. Several of these new universities are a joke. For example, will you call Malakand University a real university? It would have been much better to have a technical college there.
 - C) I suggested to the HEC to hire foreign faculty so that we could have an improvement of teaching quality. Dr. Atta asked me to form a committee to select physics and mathematics faculty. So, working with Prof. Riazuddin and Dr. Asghar Qadir, we kept reviewing cases and sending our recommendations to the HEC. But we never heard back from them. After much frustration we resigned. Nevertheless, hundreds of faculty members were hired in some non-transparent way. Some were paid in excess of Rs 3 lakhs per month. Several were expatriate Pakistanis wanting a vacation and came to have a good time or be with their families. A number of Russians with low English skills

were also been hired. There was no evaluation of the project, and nothing was made public on their usefulness or otherwise. A good project flopped.

- D) I strongly felt that some of the projects undertaken by the HEC were simply impossible. Take, for instance, the project to create nine new universities in collaboration with European countries. The project flopped ultimately, exactly as I had predicted 3 years earlier, but at the cost of hundreds of millions of rupees. It was a mad, crazy idea. Even in 2006, security was so bad that no European would even visit Pakistan much less come for a year or more to teach. The US and EU had Pakistan on their travel advisory list even then. But Dr. Atta still kept on flying from capital to capital business class of course to push the project. Everything was paid for by Pakistan. The Europeans saw an opportunity to make a quick buck. It was a hopelessly disorganized, mad-cap project which had the slimmest PC-1 project proposal possible. When I met the Swedish ambassador at a party in 2007, she did not know any details about the so-called Swedish university project.
- E) I was painfully aware of the colossal wastage of funds in the name of scientific research, but my protests were unregistered. In 2006, I had read in Dawn that QAU was going to get a Van de Graaf accelerator for 200 million rupees with another 200 million to be spent on the infrastructure to house this machine at QAU. Now, the Van de Graaf, or its reincarnation called the Pelletron, was of almost no use to us. I immediately called Dr. Ata-ur-Rehman and confronted him. He said that the Director of the National Centre for Physics Professor Riazuddin had approved the project. I then called Professor Riazuddin. He frankly admitted that he had succumbed to pressure from the HEC and his board of directors. Later on, a meeting was held at the QAU Physics Department auditorium to figure out ways to use the accelerator. 200 people were bussed in from NESCOM, KRL, etc. Most didn't even know what an accelerator was, let alone know its uses. They came to shout down me and Prof. Riazuddin. The machine arrived in February 2008 and was installed by a team of Americans from the National Electrostatics Corporation that flew in from Wisconsin. The machine has been working perfectly but nobody can figure out a use for it even today. Meanwhile the HEC has purchased the same machine for GCU (Government College University, Lahore). It was a complete waste of 800 million rupees.
- 2. Recently the head of the psychology department at Punjab University was accused of plagiarism. He had allegedly copied two research papers verbatim. 5 professors of the physics department were also accused of plagiarism. In the end, CERN (Organisation Européenne pour la Recherche Nucléaire) and the Abdus Salam centre for physics had to intervene to make the university authorities take notice. Why don't we have an indigenous mechanism in place to zero in on plagiarism and uproot it?

This kind of cheating is everywhere and our societal morality does not really condemn it. In my department a senior professor was caught red-handed plagiarising. When confronted he

coolly replied, "Everyone does it". The case went through the routine procedure. The accused admitted his wrongdoings because the evidence against him was as clear as crystal. But the penalty was miniscule. I can quote many such examples. The problem is that of degraded morals. Our country's leaders are visibly corrupt. So what does mere intellectual theft matter? If people at the top can get away with everything then why can't people in the academia? The reason why plagiarism in Pakistan has skyrocketed is the short-sightedness of the HEC. Again, Dr. Ata-ur-Rehman is to blame. The incentives for writing a research paper are so high today that morality often takes the back seat. You could get paid 60 thousand rupees for publishing a single research paper in a foreign publication. As a result many university teachers have churned out several papers a year. Some resorted to blatant cheating, copying, faking results, and used all sorts of tricks to get their papers published.

3. What do you have to say about the high number of PhD students working under a single supervisor?

A professor gets paid Rs. 5500 per PhD student working under him/her and the maximum number of students is ten. This is extremely high. At MIT my supervisor had 2 students working under him, which was considered large. Having more PhD students is not a matter of pride there. But in the biology department at QAU a certain professor had 40 PhD students at one time. I wondered if she could remember their names, or their thesis titles!

4. You were the head of a body to oversee conversion of QAU from the British model to the American model of higher education. How successful were you in this attempt?

Due to lack of enthusiasm in QAU, it flopped even before the HEC ran out of funds. Even with everything, it would have been a fairly massive venture. Everything - resources and manpower - would have had to be doubled. Unfortunately, it is now in cold storage although I really think that QAU should have a 4-year bachelors program.

5. You interviewed Noam Chomsky for PTV but the interview was never aired. What was the reason for that?

PTV refused to telecast it out of fear of offending the Americans. The content didn't really matter. After 9/11 Pakistan had allied with the US and Chomsky was the most vocal political and foreign policy dissident in America. It's ironic that Chomsky can sit in the US and criticize the US but he could not do so on Pakistani television at that time. Of course, now it's different. To criticize the US is a popular game.

6. Why did you do your PhD in nuclear physics? Even though your undergraduate degrees were in mathematics and electrical engineering?

I went to MIT for electrical engineering because I used to be in love with electricity and electronic circuits. I worked a lot with transistors, and even with vacuum tubes! But at MIT I encountered professors who were extremely inspiring and after listening to them I wanted

to study only physics and mathematics. They showed physics to be an incredibly beautiful subject. Many were famous physicists and had phenomena associated with their names. This inspired me to do my master's in solid-state physics and then a PhD in nuclear physics. Of course, I could have stayed on in the US after my degrees but I was repulsed by America's war of aggression against Vietnam. I vowed to return to Pakistan rather than stay in an imperialist country.

7. You have been a visiting faculty member at CMU (Carnegie Mellon University). Recently a terminally ill professor there, Dr. Randy Pausch delivered his last lecture. What would you want your last lecture to be about?

It would be on how we can transform Pakistan and make it a country where people can be free, basic human needs are satisfied, and where people can live happily in peace with each other.

8. Your critics' say that you only point out shortcomings and portray everything as a lost cause. How would you respond to that?

I don't seek out bad things. But it is a fact that things have gone downhill. We should not pretend that things are good. In earlier years we did not have such extreme violence in our cities. There was much less sectarianism and religious intolerance. Students and teachers were more intellectually aware and engaged. We did not have many universities then but the ones that we had were becoming better. This is not true today.

But I'm by no means hopeless about the situation. I believe we can turn things around. To do so we will have to confront religious fanaticism, and use our resources in a better way. We need to spend more on health, education and social needs and less on defence. This can be achieved through a completely different tax culture and fiscal priorities. Agricultural reforms and wealth taxes are essential to generate revenue else we will continue to live on a foreign dole. We need an active and honest judiciary. It's not impossible to mobilize people to bring about a revolution.

9. You have been a very fierce critic of Pakistan's nuclear weapons program. Don't you think that nuclear weapons have made Pakistan safer?

10 years on, has the nuclear stockpile made us safer? What about the barricades and suicide bombings? Have we become an economic power? Have we gained more prestige? The answer to all these questions is a clear 'No'. When you go overseas, green passport holders are made to stand in a different line. Other countries may fear us but they don't respect us. The Kargil fiasco in 2001 would not have taken place if we were non-nuclear, because at that time we believed that we would be protected by nukes while waging covert warfare. It was a war that we clearly lost. And it was also the beginning of something far more dangerous.

10. In your letter that you wrote about your impression of India, while there on a month-long lecture tour, in connection with your 'UNESCO Kalinga Prize' in 2003, you wrote, "Many Indian universities have a cosmopolitan character. Their social culture is modern and similar to that in universities located in free societies across the world. (In Pakistan, AKU and LUMS would be the closest approximations)." You went on to say, "The research institutes I visited (TIFR, IISC, IITS, IMSC, IICT, IUCAA, JNCASR, IPB, Raman Institute, Swaminathan Institute) are world class". Why didn't you make a comparison with any university in Pakistan in the latter case?

That's because all the private universities in Pakistan are teaching universities and they have no or little research facilities or output. As teaching universities, LUMS, AKU, FAST are fine. But there's still a lot to be desired. A comparison with Indian universities cannot be made, many of which are simply world-class. So, for example, students from TIFR (Tata Institute of Fundamental Research) students are taken as assistant professors at MIT and Stanford.

11. In the same letter you also said that, "Independent thought in India's better universities is alive and well. Office bearers of the Jawaharlal Nehru University students union in Delhi were requested by the university's administration to present flowers to President Abdul Kalam at the annual convocation. They flatly refused, saying that he is a nuclear hawk and an appointee of a Hindu fundamentalist party. Moreover, as young women of dignity they could not agree to act as mere flower girls presenting bouquets to a man. Eventually the head of the physics department, also a woman, somewhat reluctantly presented flowers to Dr. Kalam but said that she was doing so as a scientist honouring another scientist, not because she was a woman. Bravo! I have not seen comparable boldness and intellectual courage in Pakistani students. Student unions in Pakistan have been banned for two decades and so it is a moot question if any union there could have mustered similar independence of thought." Why do you think we should have student unions in Pakistan bearing in mind all the mess they have caused over the years?

I'm totally for student unions. If we ban them, then students break into regional, ethnic, or sectarian groups. At QAU such groups have a violent competition with each other over campus space and scholarships. This is not good or healthy. Having said that, I still believe that registered student organizations should be allowed to operate, albeit under strict rules. If these rules are violated, the concerned authorities should move against the offenders. A strict no-guns and no-violence on campus policy should be enforced. Violators should be expelled. I believe that the majority of students are responsible adults and deserve to have a voice of their own.

12. What about the IJT – Islamic Jamiat Talaba in PU?

THE IJT are a bunch of goons and thugs. However, if they abide by the rules and the prescribed code of ethics, like everyone else they too should be allowed to function. We need to take violent behaviour away from unions.

13. You met Dr. Eqbal Ahmed at MIT and became friends. Dr. Eqbal wanted to establish a world class university in Islamabad to be named after Ibne Khaldun, one of the greatest scholars and liberal thinkers of the Muslim world. After Dr. Eqbal's death you have taken upon yourself this colossal task. How far along are you in this project?

I tried hard but gave up a year after Dr. Eqbal's death. It was impossible to draw in resources. To get a charter and land, I had to battle the bureaucracy like he had to. I too could not make headway.

14. You are the recipient of the 'Dr. Abdus Salam prize' for mathematics. How do you feel about the treatment meted out to Dr. Salam by our government?

It is disgraceful and shows how deep religious prejudices lie. No one can deny that he was a great scientist. But no one from the government's side received his body at the airport after it was flown in from London. His last wish was to be buried in Pakistan. Narrow mindedness has played a key role in keeping us from progressing.

15. What message would you give to our readers?

It is time to be much more open-minded in matters of religion and personal behaviour. Everyone should be equal before the law. The doors of opportunity should be open for everyone regardless of race, ethnicity or religion. A society which is based on intolerance is always unhealthy. Young people should not be passive anymore. They have to engage with problems of our time and become activists for social and political change. They need to be strong and courageous because the forces of darkness are strong. Unless we resist, we will be overwhelmed.