

L6-2013

Shri Mani Shankar Aiyar

Seventh Raja Ramanna Memorial Lecture

REFLECTIONS ON THE RAJIV GANDHI ACTION PLAN FOR A NUCLEAR WEAPONS-FREE AND NONVIOLENT WORLD ORDER



NATIONAL INSTITUTE OF ADVANCED STUDIES

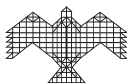
Bangalore, India

Seventh Raja Ramanna Memorial Lecture

**Reflections on the Rajiv Gandhi
Action Plan for a Nuclear Weapons-free
and Nonviolent World Order**

Shri Mani Shankar Aiyar

27 February 2012



NATIONAL INSTITUTE OF ADVANCED STUDIES
IISc Campus, Bangalore-560012

© National Institute of Advanced Studies 2013

Published by

National Institute of Advanced Studies

Indian Institute of Science Campus

Bangalore - 560 012

Tel: 2218 5000, Fax: 2218 5028

E-mail: admin@nias.iisc.ernet.in

L6-2013

Typeset & Printed by

Aditi Enterprises

Bangalore - 560 023

Ph.: 080-2310 7302

E-mail: aditiprints@gmail.com

Seventh Raja Ramanna Memorial Lecture by
Shri Mani Shankar Aiyar on 27 February 2012

Reflections on the Rajiv Gandhi Action Plan for a Nuclear Weapons-free and Nonviolent World Order

Professor Ramamurthy, Dr Narasimhan, Dr Soma Sen Roy, the family of Dr Raja Ramanna, Deputy Director of Studies at the National Academy of Administration, Rajan Sahib, Ambassador Saurabh Kumar, whose role in what I have to say will become clear as I go along, ladies and gentlemen:

Unlike many of my predecessors and many of you, I did not have a particularly close professional association with Dr Raja Ramanna. But there were, of course, several occasions during which I happened to be in the same room, we knew each other, there were some conversations, but I can barely claim the familiarity that several of my predecessor speakers here would have had with Dr Raja Ramanna. But although he could not have known very much about me, no one from my generation could not have known of Dr Raja Ramanna. Second only to Dr Homi Bhabha, he was the father of our nuclear weapons programme and he did perhaps more to drag India into the twenty-first century than almost any other Indian one can think of. I am glad that towards the end of his life, he served as a nominated member of the Rajya Sabha and he did also serve as an administrator plus his

scientific career was crowned with an element of success. But, I am taking the liberty of not talking about science for which I am uniquely unqualified.

I must be the only one in this room to have failed his lower mathematics examination at the school-leaving stage. Somehow the Lord seems to have abandoned one half of my mind. The ability to understand science is limited to hoping that I will be able to put a plug into a socket, but even that does not work much of the time. I am here before you, because although I know nothing of the science and technology that goes into the manufacture of nuclear weapons, or indeed nuclear power, I am, as I think many of us are aware to some extent, of the consequences of using nuclear weapons.

Perhaps my generation was more aware of this than the generation that came immediately after. For, after the use of atomic weapons in 1945, it took about ten years for the Western World to wake up to understanding and appreciating what might happen in the event of a nuclear exchange. And there was a great deal of work done by scientists like Robert Oppenheimer, like the scientists in the Pugwash conference, and by others such as Lord Bertrand Russell to arouse public consciousness in the west to the dangers of the toys that they were playing with.

And perhaps the most impactful of all these efforts was a novel called "On the Beach" – it is set in Melbourne after a nuclear war in the northern hemisphere. And the radiation clouds are moving south and that is what gives dramatic content to the novel as eventually the clouds reach over Melbourne. The novel ends

effectively with the obliteration of everything that we know as the plants, as the human beings, the world over several thousands of years, perhaps uniquely on Earth. I say perhaps because there is the possibility of life elsewhere. As far as we know it is uniquely in this planet we have the kind of life, that we understand as life.

The human brain has been able to conquer much of nature although we are also learning the lesson that nature is just as powerful, often comes back with a punch that is even deadlier than the ability of the human brain.

And I think, since 1998, here in India, there has been a great deal of triumphalism about our having become a nuclear weapon power but almost no understanding at a general level. And indeed very little understanding or desire to understand in the upper echelons of our society as to just how dangerous these weapons are.

The speeches of Pandit Jawaharlal Nehru on nuclear disarmament found an immediate resonance in Indian society. And this continued through the era of Indira Gandhi and Rajiv Gandhi and others who led our country. And we were perhaps the most consistent in arguing the case for global nuclear disarmament. I believe I am not transgressing on anybody's toes.

It is just that after May 1998, there has been much less attention given to the consequences of actually using these dreadful weapons than to a sense of pride that we have succeeded in obtaining them, a sense of national duty in stockpiling them, a belief that our national security is intimately woven with these nuclear weapons; and that we are able to utilize our nuclear

weapon status as a currency of power, to perhaps aspire to becoming a permanent member of the UN Security Council, a power in our own right, and a country which will be able to hold its own against China or the United States or whoever attempts to challenge our position in the world.

And it is to utter a word of caution that I stand before you. The fact of the matter is that there is no country in the world which even remotely matches the extent to which India is threatened by nuclear weapons.

Number one: Two of our immediate neighbours, China and Pakistan are also nuclear weapon powers. And with both of them we have a relationship based on conflict or the perception of conflict and towards whom the processes of reconciliation have either moved forward very slowly or not moved forward at all.

Given the nature of these weapons, God forbid, if there were to be a sudden deterioration in our relationship with, say, China in the manner in which it took place – very, very suddenly between about 1959 and 1962, remember the fact that in 1962 the People's Republic of China was not a nuclear weapon power, our life as Indians could be obliterated.

On the Pakistan front, the tension between India and Pakistan, from its creation, with the trauma of partition, was ratcheted on both sides till 1965 but more particularly in Pakistan against us. And the fact that India having been militarily defeated by China was the proximate cause of Zulfikar Ali Bhutto promoting the idea of Indo-Pakistan war in 1965.

There has been since then, a certain *reduction* in tensions in our relationships. But still it is so fragile that in February 1999, Prime Minister Atal Behari Vajpayee undertook what was billed as a historic bus journey to Pakistan and less than three months later we were engaged in armed hostility in Kargil.

Then we have the capture of power by Pervez Musharraf and it led perhaps inexorably to the attack on Parliament in December 2001, leading to men being mobilized on to the border in “Operation Parikrama” and a sense of tension in the world heightened by the fact that both of us are nuclear weapon powers.

I remember that at that time being invited by a very right wing club to a meeting in Marrakesh in Morocco to talk about India-Pakistan relations and the bewilderment which I saw on the faces of my audience. It may be argued that both India and Pakistan were far too mature as countries to actually resort to these nuclear weapons. People didn’t believe what I was saying.

And then again, in much more recent times, I am referring to the international meetings on nuclear disarmament that I have attended even last year, there is a tendency to list the hot spots, to mention the DPRK and the ROK, to mention the Arab world and Israel, to mention Iran and Israel, and in the same breath to add India and Pakistan.

The world’s perception of our rivalry is not very different to the rivalry that they see between the Arab world and Israel or between Iran and Iraq and this does seem to me misplaced because we are, after all, in dialogue with Pakistan. But dialogue

is an “on now, off now” process. And there are not very many Indians that I know of, whether among the *aam aadmi* or in the Indian Foreign Service, who have any great faith in this Indo-Pak dialogue leading anywhere.

Under these circumstances, there is always the danger that some idiot somewhere triggers a nuclear exchange. And here we must remember that while we might be able to find an Indian *Jehadi* who would put an atomic bomb in a suitcase and take it to Lahore railway station that would finish Lahore in a matter of minutes. And then if the winds are right, or rather if the winds are wrong, then exactly eight seconds later, perhaps within eight days, Delhi would have to suffer the consequences caused by the nuclear bomb. So in these circumstances, the fragility of the international relationship between India and China and India and Pakistan, while we are trying to do what we can to rectify it, at the moment is such as to make it almost impossible for us to forever and ever prevent a nuclear conflict between India and China or India and Pakistan.

Number Two: Perhaps even more dangerous, is the possibility of a nuclear terrorist attack on India. For that to happen, (a) the consequences would be exactly as horrendous as a conventional nuclear war, but (b) there is no way in which we could use our retaliatory nuclear capacity, and therefore, it is essential for us to recognize that India is probably the most threatened country in the world in terms of both – a conventional nuclear armed attack, as well as an unconventional nuclear terrorist attack.

So instead of triumphalism, I think what is indicated is a return to the path of wisdom. I call it a “Return to the path of

wisdom” because possibly no one except Mahatma Gandhi, on the sixth of August 1945 reacting to the first news of the dropping of the atomic bomb over Hiroshima, could have said:

“The atomic bomb has deadened the finest feelings which have sustained mankind for ages. There used to be so-called laws of war which made it tolerable. Now we understand the naked truth. War knows no law except that of might. The atomic bomb brought an empty victory to the allied army. It has resulted, for the time being, in the soul of Japan being destroyed. What has happened to the soul of the destroying nation is yet too early to see.”

Right through till at least 1998, no one advocated as passionately as India did for universal nuclear disarmament and in this crusade against nuclear weapons, we were faced with a very asymmetrical position vis-à-vis the world. But asymmetry is something that Indian politics has uniquely understood since the dawn of the twentieth century.

When Mahatma Gandhi came back from South Africa and took over the leadership of the freedom movement, he introduced the concept of neither accepting the goals nor the means of the imperial oppressor, thus leaving the imperial oppressor completely confused as to what his appropriate reaction should be.

And nothing illustrates this better than the statement which Mahatma Gandhi made in the court of the district sessions judge in Ahmedabad in 1922 when he was arrested for having led and

provoked the first non-cooperation movement: “It is your duty under the law to impose the harshest punishment that the law provides for on me. Even as it is my duty as one who believes this law to be unjust to oppose this law whatever the consequences, and to be ready to take the consequences for having broken the law”.

The end result was that the judge sentenced him to exile in Burma, in Mandalay, where they had sent Balagangadhara Tilak, but went on to say that he earnestly hoped that higher authorities would take into account what Gandhiji had said and ensure that this harsh punishment was made more lenient and that reconciliation would somehow prevail.

And from then, right to the end of the freedom struggle, whatever we were doing were what other people were not doing. D.F. Karaka, I think it was, who said that Gandhiji made men out of clay. What he referred to was that hundreds of thousands of ordinary individuals – very, very “*aam aadmi*” went in front of *laathis*, took them on their head, everyone of them was very seriously injured, yet none raised his hand in defence.

Read Jawaharlal Nehru’s autobiography, something that I have never seen in any other autobiography, there is an almost endless discussion of the ends and the means, the belief that the wrong means cannot give you the right ends.

A kind of mingling of morality with the politics of life and death – after all, what was the freedom struggle about. It was about whether India would continue to be crushed under the

heel of the imperial power or be liberated and where every other liberator in history before and since has taken to arms in order to drive the oppressor out.

In the case of India, there was a kind of moral and ethical commitment to gain freedom without using arms. While some Indians did in fact use arms against the imperial government, the contribution they made towards India's freedom, while real, was always at the margin. And basically it was the non-violent movement that prevailed over what was then the world's strongest military and economic power. And a political power that was so vast globally that the British could boast that the Sun never sets on the British Empire! This had led V.K. Krishna Menon to remark: "that is because even God wouldn't trust the British in the dark!"

The uniqueness of our freedom struggle was followed by the awfulness of the partition without parallel in world history. I have the example of the Germans' power to rid themselves of six million Jews. But although the numbers in India and Pakistan were much smaller, the atavistic fury of ordinary people falling upon ordinary people proposes me to consider the partition riots as unique as the people who seemed to be struggling with demons in their breasts.

What Panditji did from 1947 when he took over the external affairs portfolio until his death in 1964 was to forge an asymmetric foreign policy. Essentially India was to become the only state which was neither aligned to the eastern block nor to the western block. At that time Non-alignment, which had not yet been invented, was espoused by exactly one country in the world— a

country whose economic needs were desperate, whose military situation could be described as desperate and whose ability to influence world events was socially limited to whatever moral leadership it could get. And yet by the time the seventh non-aligned summit was held, under the chairpersonship of Prime Minister Indira Gandhi, two-thirds of the world community and one half of humanity subscribed to this foreign policy. Just one man and one country had more or less invented it. That was asymmetry.

At the same time, when everyone else was rushing to secure the protection of a nuclear umbrella, if they were not themselves owners of nuclear bombs, here was Jawaharlal Nehru voicing the fear that all mankind was to slowly learn. But he, right from the beginning, said that nuclear weapons – they are not the “*Brahmastra*” because the *Brahmastra* of the Mahabharata only kills the enemy. Here was a *Brahmastra* fashioned as a boomerang that would first finish the enemy and seconds later finish those who released it.

While what he said was not music to anybody’s ears, it was courage to stand up in the world and proclaim “this is asymmetrical” – and what was the consequence? When he died in May 1964, the London *Economist* ran a cover. A cover on Jawaharlal Nehru, had a very dim photograph of him against an almost dark background where you could barely see him. It was a photograph of him taken while speaking at the United Nations General Assembly and only his face was lit up against this dark background. The legend said “World without Nehru”. After perhaps a dozen Indian Prime Ministers, the *Economist* has not

had a cover which said “World without Morarji Desai” or “World without V.P. Singh” or “World without Rajiv Gandhi”! And yet, this generation of Indians is under the impression that only now that we have got the bomb do we matter in the world!

In fact, today we matter much less in the world than we mattered in the 1950s when the Korean war couldn't be brought to an end without the Indian chairmanship of the Neutral Nations' Commission; when the Indo-China conflict between France and Vietnam could not be brought to an end in the Geneva conference without what the French Chairman Pier Monde France said was nine participants at the table, eight inside and one outside, India.

V.K. Krishna Menon has just booked himself a suite in the Boriwali hotel which the Indian scientific community knows particularly well, and sitting there outside the conference, not even invited to the conference, played an absolutely key role in encouraging both sides to have at least sufficient confidence in each other to come to an agreement even if they were not prepared to sign the agreement.

Walter Bedell Smith who was an American commander in the Second World War, signed the document although he agreed to not being mentioned at the end of the document as one of the parties to the agreement. And in consequence, the left wing leaders said if Bedell Smith won't sign, we won't sign either. But it was on the basis of that document, to which India made an enormous contribution, that we were invited to become the Chairman of the International Supervision Commission.

We had enormous influence on foreign policy. Ever since India moved from the moral paradigm of being an alternative vision of the world to becoming a more conventional kind of a state, we don't have anything different to say – then why should the world listen to our parroting what somebody else is saying?

Yet, in a curious way, becoming a nuclear weapon state in 1998, suddenly gave credence to being an advocate of nuclear weapons disarmament. That was not the case in 1988. Rajiv Gandhi presented his Action Plan for a nuclear weapons-free and non-violent world order. Actually he gave his heart and soul to prepare that plan. I think officers who worked with him at that time will certify the passion with which he went about that document.

I was not involved in the preparation of the document. But I was involved with helping prepare the speech he made at the UN and I am in a position to personally certify that it went through seventeen drafts. Drafting continued almost literally into the morning of the day on which he was to make the speech.

I was with him as the sun came up and he asked me, "Tell me what you are going to do?" I said "I am going to do what I always do in New York, which is to have a sunny side up". As a Prime Minister, he was really caged inside this golden cage, he stayed in the presidential suite of the Waldorf Astoria. He couldn't step out to have himself a sunny side up when he delivered the speech. Now a lot of information has come which is not in our favour. Even colleagues of mine in the Prime Minister's office at that time are of the view that the action plan was something of a feint.

But ever since Dr A.Q. Khan had revealed quite deliberately to Kuldeep Nayar that Pakistanis were actually in possession of nuclear weapons or were on the verge of getting it, the establishment as a whole had been agitating for us to turn that screw driver one turn – which the atomic establishment had told us that was all that was required to become a nuclear weapon-power.

And I feel that it is my duty to Mr Rajiv Gandhi, soon after this A.Q. Khan interview, came up to me and remarked that you know, if Pakistan goes nuclear, he cannot stop India. I think that was a significant remark to make because it showed that he didn't really want to make the bomb. But the pressures on him within the country, if Pakistan were to become a nuclear weapon power, notwithstanding all his reservations in this regard, India might have to go nuclear. And I understand from George Perkovich, from the BJP, anyone who wants to denigrate the bomb that it was Rajiv Gandhi who gave the orders – Raja Ramanna knows that – that "Right, go ahead and prepare for it".

To claim that he was presenting his action plan without any intention of adhering to it is extremely unfair, and I must confess that at the time he made it, the significance of it had completely escaped him. That we are on the threshold. That it is entirely voluntary on our part that we don't cross the threshold. But then you are compelling us to move in the direction of crossing the threshold. By doing nothing yourselves as nuclear weapon states to reduce your own arsenals, to cap your own arsenals, reverse them and eventually eliminate them.

In 1967, almost every country in the world signed up to the non-proliferation treaty. There were only four states who at that time were not recognized as nuclear weapon-power states, who had the capacity to make the bomb. And all four of them refused to come on to the NPT, for reasons of their own.

India refused to become a member because we said it was an uneven treaty and in any case we were advocating universal nuclear disarmament. Pakistan said they wouldn't sign the treaty because India was not signing the treaty. Israel said they wouldn't sign the treaty because they are the keepers of the world's least kept secret nuclear weapon power. And South Africa which was under the apartheid regime also was a nuclear weapon power but its western supporters felt that a bomb at the bottom of Africa was essential for their security and therefore they connived with South Africa in not revealing the existence of the bomb there. But apart from these four countries, everyone who was a member of the international community of nations in 1967 signed up – five of them as nuclear weapon states and the rest of them as non-nuclear weapon states. Non-nuclear weapon states by treaty were put under an obligation to immediately accept that they would not proliferate nuclear weapons against what Gandhiji would have called a post-dated cheque, on the promise of the nuclear states, to negotiate in good faith towards the elimination of nuclear weapons.

By the end of 45 years that have passed since 1967, none of the non-nuclear weapon states has become a declared nuclear weapon power except for the Democratic People's Republic of Korea, otherwise called North Korea. The North Koreans have said "Yes

we have our treaty obligation” but the world has changed and we are now the possessors of nuclear weapons. Iranians who are accused of wanting to do this insist that they are not in quest of a nuclear weapon and Saddam Hussein although he liked to pretend that perhaps he did have something under his belt, was discovered subsequently to have nothing under his belt.

And perhaps the most ironic sentence ever written by any Prime Minister in his autobiography – that is what politicians normally do, the exculpation of their sins, is Tony Blair’s. Who has this gorgeous line in his book about himself in which he says “If only Saddam Hussein had had the wisdom to do what Gaddafi did, we may not have been forced to go into Iraq”. Now of course Gaddafi’s country has been invaded for the sin or the virtue of not possessing an atomic weapon.

And Kim Il Sung and Kim Jong – both of them have succeeded in cocking their snook at the Americans and everybody else, despite being one of the most desperately poor countries in this world because they say untested that they have the bomb. And nobody is willing to take them on that for the fear that they might actually have the bomb and might have the ill sense to use it and then what?

So we are in a situation in the world today which is so different from that in 1967 that it has been estimated –, this is only an estimate – that there are about forty countries in the world today who have the capacity to move away from non-nuclear weapon status. And many of those who are capable of doing so are not doing so not for any very good reason, but because the United States of America has them under a nuclear umbrella.

Thus Japan, which is a leading advocate of nuclear disarmament, is totally content to have no bomb of its own because of the American bombs and this is true of entire NATO. And since much of the Warsaw Pact is being brought under the aegis of NATO, everyone who is advocating disarmament is looking askance at India and Pakistan and particularly viciously at Iran, although significantly *denyingly* at Israel, that all these countries know that if push came to shove they have nuclear power to act as a deterrent or to act even as a weapon of attack.

Why do I say “weapon of attack”? The Americans refuse to accept the principle of not using nuclear weapons against non-nuclear weapons states. And furthermore, between the Americans and the Russians, they have between 90–95% of the world’s nuclear arsenal. Now they have been moving, ever since *Reykjavik* in 1986, “bringing down their arsenals” towards de-alerting by removing warheads from missiles in the direction of greater sanity in the world.

I would like to define what sanity means in today’s context. Until 1986, the Americans and the Soviet Union had between them, the capacity to destroy the world fifty-one times over! “Doctor No” of the James Bond series only wanted to destroy the world once over, and has been universally regarded as symbol of madness. But countries which have the capacity to destroy the world fifty one times over are regarded as symbols of international responsibility. And when we try to get into the UN Security Council, we are often asked solemnly whether we are prepared to rise to our responsibilities. And I have had to tell several people that if by that you mean how many million Iraqi

children are we willing to kill, I trust we will not be ready to rise to our international responsibilities.

After Reykjavik, now they are down even more. Not so much in terms of arsenals as in terms of nuclear war heads removed from missiles. And so today the poor darlings, the Russians and the Americans can only destroy the world seventeen times! My heart breaks for them! Seventeen times!

If this is not insanity, then what is? I am saying this on the tenth anniversary of 9/11, but that madness resulted in the deaths of something over one thousand people. I told you I am not a mathematician. I can't even count the number of times over one thousand persons who will perish in an all out nuclear war!

In these circumstances, I would now like to address the question of India's nuclear weapon. I am personally in favour of unilateral nuclear disarmament. Because I have always felt that since May 1998, we have become far more insecure than we were before that.

I also accept that I am perhaps alone not only in this room but in this country in desiring unilateral nuclear disarmament. I think I belong to a much larger constituency, if we talk of universal nuclear disarmament. For national security reasons this would be the only way in which we can return India, Pakistan and China in our part of the world to a non-nuclear weapon status which is part and parcel of a global movement towards the elimination of nuclear weapons.

I cannot see it happening by unilateral action in any of these three countries. Or indeed happening in any of the recognized nuclear weapon states except in this global context. Actually no one will pressurize Israel to get rid of its own arsenal without the whole world getting rid of these weapons of mass destruction. And so long as Israel is equipped with, one doesn't know how many, for whatever is the number of nuclear weapons they have, I don't see how you can convincingly argue with Iran that there is no security threat to them from Israel. Therefore they kindly put their bomb away. The Iranians, of course, say that they are not making the bomb. But so much of the rest of the world insists that they are! We also need to address this. Can you stop Iran when you are keeping mum about Israel? At the last NPT review conference, thought to have been a roaring success, on the resolution on the Middle East being a nuclear-free zone, the one country that said absolutely "no" with backing from another country; Israel was the principal and the US the backer.

So therefore there is no question of either demurring Israel of its bomb or stopping Iran if it wishes from becoming a nuclear weapon power unless the world disarms. If there is a world disarmament movement, then I think the compulsion on Iran from the Iranian authority, whoever that is to move towards nuclear weapons status, will be diminished to the point of zero. And it is only in the absence of that and continuing hostility from the rest of the world with their being under imminent threat by all the forces that the western world can muster, Ayatollah Khamenei being reduced to what Gaddafi was – that really stokes tension in the world.

And then nobody in international *fora* suggests that the Iran-US confrontation is a much more dangerous one than the India-Pakistan, at least the Indians and the Pakistanis are talking! Be it off and on! But the Iranians and the US dialogue is between the deaf and the mute!

So therefore, we really are in an extremely dangerous position. That is why some of the most lunatic warriors of the cold war have now come to the fore as champions of nuclear disarmament. I certainly did not believe in 1988 that I would live to see the day on which two Republicans and two Democrats, all four of them having been Secretaries in the United States, two of them Secretaries of State, and two of them as Defense Secretaries, would write an article in the *Wall Street Journal* urging that the United States must get rid of its nuclear weapons in a global nuclear disarmament. Robert McNamara, who had earned such a filthy reputation for himself as the Defence Secretary, in a very influential article wrote in *Foreign Affairs* that the total reaction time that a US President has – the perceived threat of a nuclear attack on this country whether it came from the conventional nuclear enemy like Russia or from a terrorist organization like Al Qaeda would be at the most twenty minutes. That is why wherever the US President goes, there is a secret security detail that is walking around with a little box.

To decide whether we live or die! Whether the world lives or dies. Fortunately, India is a self-sufficient country. So I think there is more than twenty minutes to make this decision. How much *more*? Assuming that we are one and a half times less efficient than the United States, that gives us thirty minutes. But

I don't know if we have thirty minutes. For, there is an ocean that separates the Russian Federation from the United States of America. Whereas what separates India from Pakistan is the distance from Atari to Wagah! They are our neighbours! Were an attack to take place, I don't think there would be any lead time. And in that moment of confusion, if we said "*Hum bhi wohi dikhaayenge jo unhon ne humse kiya hai*". So that is the end!

To what extent is it the end? We don't know! And that is one of the many reasons as to why I have chosen this subject at the National Institute of Advanced Studies. There was a part from one study that we discovered, almost by accident, they have described what would happen in the event of a nuclear attack on Bombay or Mumbai, it will still be attacked whether it is Bombay or Mumbai! There is no study that we know of about what the consequences either by a terrorist or by a hostile state would be on our country.

How many bombs would it take? Where would they have to fall? Would there be protection against the radiation beyond the borders? How long will it take for the clouds to move? I understand that the national disaster management authority has, in fact, looked at this. But they are also a government organization and with *Kudankulam* causing considerable concern to our government nobody in authority is willing to take up this study and bring it to the public, as to what would be the consequences?

I am reminded again of a private conversation with Rajiv Gandhi when he said – both India and Pakistan have the nuclear bomb. I said "What, sir?" and he said "yes, very simple – the Canadians have provided it to both of us!". I raised my eyebrow!

“They provided us both with nuclear reactors near Mumbai and Karachi, and all either of us requires is one Kamikazi pilot in each air force.” Both in Mumbai and in Karachi the consequences will be just as horrific. But we don’t seem as people or as a government or even as an academic community to open our eyes!

What I am saying is that we need to know what the consequences would be in order to prepare the civil defence mechanisms against it. Because surely we want to save some of our people.

My generation was particularly aware of all this. As I went to England as a student in 1971, the western world was really beginning to wake up to the consequences. On the one hand we had this novel “On the Beach”, on the other hand, we had another novel called “When the Kissing had to Stop” which was a description of what would happen to England if the campaign for nuclear disarmament succeeded and then the Russians availed of that opportunity to conquer the western world.

So there was a very heightened public debate on the question of whether it was safer to face the dangers of nuclear war by preventing the Soviet Union from destroying the world or whether it was safer to move towards a more sane world in which nuclear weapons wouldn’t exist. And that led to a number of jokes.

I don’t remember the serious arguments but I do remember the jokes. And one of the jokes was that the best way of avoiding the consequences of a nuclear war is to become a cockroach! Because apparently cockroaches are the only forms of animal

life that will survive a major nuclear attack. The other was that you should always insist on a brown paper bag when you go shopping. They argued that by wrapping yourself in brown paper in the event of a nuclear attack, it will act as a shield against radiation.

The third well-known story I remember from my mis-spent youth was that they had underground shelters and they said the London underground, which had been a very effective place against the aerial attacks the Germans had mounted on London, would serve at least as a relatively effective nuclear shelter. Somebody had argued that no place in London is more than four minutes away from an underground. People objected by saying "No, how can we possibly get there in four minutes? It is more than a mile!" and the answer was given by a comedian who said, referring to Roger Bannister who ran a mile in four minutes! "In this great country of ours, who can run a mile in four minutes!" and this was the way in which through humour, novels, through serious scientific writing, that the western world and presumably, equivalently the Soviet world, was awoken to these dangers.

So instead of fighting each other, they fought proxy wars in the rest of the world. It is not that they stopped fighting. But they stopped fighting against each other and used whatever opportunity they could get from Mozambique to Namibia to the Congo, to Cuba, to Latin America, to Afghanistan, to South-East Asia, anywhere in the world where they could give expression to their hostile, animal-like behaviour and then say that we have kept the world safe because we have got nuclear weapons.

And I think it was Indira Gandhi who gave them the most effective riposte when at the Seventh Non-Aligned Summit in New Delhi in March 1983 a very, very sub-continental expression – she said “The hood of the cobra is spread. And the world waits in frozen fear for it to strike!” I think that a similar metaphor, is perhaps the most effective one in explaining the situation in which we are today in India. The hood of the cobra is spread. And although we are not in frozen fear, it is only because of ignorance that we are not in frozen fear.

Perhaps it is important that the scientific community should make the kind of studies that are necessary to alert us to the dangers of a nuclear attack or a set of nuclear attacks by terrorists and the consequences of an alleviated or a full-scale nuclear war. Only then will the preparations that are being made by the National Disaster Management Agency be realistic, based on a widespread knowledge of the civil defence measures that would be required in the event of such a tragedy overtaking our sub-continent.

At the same time all this makes it much more important than perhaps before 1988 for the country to resume its vanguard role in nuclear disarmament debate and therefore, I am particularly proud and deeply grateful to the Prime Minister for having chosen me to chair a group that considered how to carry further the debate as a nuclear weapon state, rather than as a non-nuclear weapon state. The idea is contained in the Rajiv Gandhi Action Plan for a nuclear weapons-free and non-violent world order which he printed for the third special session of the UN General Assembly. Saurabh Kumar, who is one of the visiting professors

here on the faculty, is one of the distinguished members of this committee. There were six others.

I do hope that NIAS will make arrangements for that report to be made available and to be distributed because I don't want to take up your time trying to give you a detailed summary. Because I need you to carry this message forward. The opportunity that I have in addressing such a distinguished and learned audience gives me the hope that the message would be taken to a larger audience.

Basically, our argument is as follows. In an amazing twenty three years after Rajiv Gandhi first presented his action plan, almost everything that he has said continues to be totally relevant. It is the only action plan presented by any head of government at any forum which details in such a practical manner, how we can move from today's position of being able to destroy the world seventeen times over to how we could perhaps save the world seventeen times over. It is a highly proficient document. It takes into account all contingencies. And it provides for them. And at the time when it was presented, it was, as I marked earlier, regarded by some as a feint, and by others as the usual Indian moral policy, never taken seriously by anybody.

But ever since the fall of the Berlin Wall, and the end of the cold war, there is a proliferation of non-governmental groups the world over and perhaps the best funded of them are in the United States itself. People like George Shultz, who used to be Secretary of State, is in the forefront with this movement, say that now the world has changed and it is critical that we

look seriously at the question of the elimination of the nuclear weapons.

And then President Obama, in a speech that he made at Prague, which although full of conditionalities that are emphasized more than the essence of his speech, related to the prospect and the possibility of ridding the world of nuclear weapons. And in consequence, that speech made in April 2009 in Prague, he became the only person in history to have won a Nobel Peace Prize for the declaration of an intent rather than the achievement of anything specific. And so we have President Obama making at least the following very important four or five speeches: one, the Prague speech; two, the Oslo speech; third, the position taken in the U.N.; fourth his speech in the Central Hall of the Indian Parliament in November 2010; and then the joint communiqué in India, which incorporates this subject.

Background history to this communiqué is that while preparations were on, I was trying to persuade our foreign office to work on this subject. But they were more keen on highlighting other points of cooperation and very little, in fact almost, no work was done on nuclear disarmament. I must say it is entirely to the credit of the National Security Adviser, that he and his counterparts, that the single longest paragraph of substance in that joint communication was devoted specifically to nuclear disarmament. Because that might make us lose the point subsequently. The fact is that the way in which the Americans have expressed themselves in that joint communication brings them closer than ever before to our insistence on the process of nuclear disarmament that comprises the following specific elements.

Number one: *Universality*. It should either be universally applicable or not applicable to all. We cannot have partial disarmament like we cannot have partial virginity. It is either that or it is not. You cannot have anything in between. So universal disarmament is a critical element of the disarmament process.

Number Two: It must be *time bound*. For, there is no point in saying as Obama is thus far saying that some time but certainly not in his life time the world should rid itself of nuclear weapons. That is not good enough. What Rajiv Gandhi proposed was a 22-year framework. I am sure he was ready to be flexible about it, make it 22 or 20 something. There are others who say don't give any number of year in the start, let the number of years become part of the negotiating process. That too is feasible.

But, at any rate, it has to be time-bound. Then it is necessary that it be *phased*. Because it is not between a Thursday night and a Friday morning, as it were, that the world will be rid of nuclear weapons, there are a number of steps to be taken. And among those steps, are issues like the Comprehensive Test Ban Treaty, which India has also said that it will not stand in the way of entering into force. Lovely way of saying, real diplomatic expertise. And that Saurabh Kumar must take the credit that we will not stand in the way of the CTBT entering in force. Gorgeous way of saying, let the Americans ratify first and we will follow. The FMCT, which is the Fissile Materials Cut-off Treaty, the Pakistanis are blocking in conference. But these do not amount in themselves to the elimination of nuclear weapons. And do not even amount to self-declared steps towards the achievement of that goal.

Only the Rajiv Gandhi Action Plan among the official documents presented actually links each intermediate step in the chain, that you cannot get to the end of the chain without attacking each of the links, all these specific steps towards the elimination of nuclear weapons is regarded as valuable only with the link in the chain at the end of which there will be no nuclear weapons.

And this subtle point has barely been understood even in India. My friend C. Raja Mohan, he is pointing to some part of the action plan and saying there has been a futile attempt over fifteen years. I tried to tell him that that's certainly one link in a chain, make the CTBT a link in the chain and tomorrow we will sign up.

Just leave the CTBT as an end in itself, then those who had enough tests say "Oh we are in favour of the test ban treaty" and they make it comprehensive only to the extent that it doesn't include laboratory tests that would make the weapons even more effective. So we are in a situation where the world seems ready to indulge in a certain amount of reduction and control over stockpiles.

I have the latest agreement between the United States and Russia which would appear to indicate that eventually they may reach about a thousand weapons each. They have agreed to get down to about 1500. It is 1500 that are ready to be used within twenty minutes' notice. It is a great improvement – an improvement by a factor of three. What is perhaps more interesting is that the number of the countries which do enjoy the benefit of the nuclear umbrella are becoming very active in pressing for negotiations aimed at elimination, countries like

Australia, Austria, New Zealand, Japan are very, very active in asking for nuclear disarmament.

Whereas we in India were almost alone, along with our friends in the non-aligned movement. But not among those who were nuclear weapon states or who enjoyed the benefit of the nuclear umbrella. Now we are discovering several allies among them including Ireland, that were preventing a clearance for our civil nuclear power programme. It is for us to cultivate them.

Moreover we have a large number of NGOs led, I think, by an organization called Global Zero, of which I am also a member. The PNND, Parliamentarian for Nuclear Non-Proliferation and Disarmament, it is Republican-dominated – and it has got a lot of military personnel in it. But they are also asking for the elimination of nuclear weapons often on grounds that are not acceptable to us. Because their conventional power is enough to deter. But nevertheless they are also part of this movement. And the lawyers, the doctors against nuclear weapons – the Pugwash, so on and so forth constitute a large body of civil society activists and academics including some of the greatest scientists, and physicists in the world. People who made a name for themselves in nuclear power, who are in the forefront of this movement.

Let us not forget, the first true call for nuclear disarmament was from none other than *Robert Oppenheimer* who saw the first bomb go off at Al Mugardo and was reminded of something in the Gitā. And when he learnt that the Americans, back in 1950, were promising to give us food aid in exchange for our exporting monazite sands from Kerala to America, he had

someone go and meet Vijayalakshmi Pandit, who was our Ambassador in New York, to post a letter to Jawaharlal Nehru begging him and pleading with him that India must not give any monazite sand to the Americans to enable them to get on the plutonium route.

I know we have kept our sands to ourselves except what sand the American tourists take before going home. But by and large the sands are with us still. And in fact the idea of us becoming the Saudi Arabia is based on the presumption that suddenly monazite sands of Kerala will become the equivalent of the normal kind of hydrocarbon bearing sand in Saudi Arabia.

So it is the scientists who have often been at the head of the disarmament movement. And I think it is very necessary that the Indian scientific community, they have the greatest credibility, also come into the movement, painting first the consequences of nuclear war, then contributing to the civil defence measures that will save at least some of us. And then understanding and arguing out the case that was in a skeletal way outlined in the Rajiv Gandhi Action Plan.

And availing of the very many favourable factors that do exist in the international community in our own region. In our corner of Asia, which would indicate that with a determined political will, we may be able to move towards nuclear disarmament – global nuclear disarmament more successfully than anytime in the twentieth century. And in this hope that this might be possible is included that all of you will become part and parcel of the initiative.

This report, I might add, has received the most fulsome praise from the Prime Minister and for the Prime Minister to be praising me is saying something. And so has the External Affairs Minister. There are a number of proposals here for action by the government which I hope *Inshah-Allah*, the government will be taking in terms of promoting a dialogue with all interested partners, including China and Pakistan. This same group is being funded by the Government of India to carry this message to the academics and civil societies in India.

And it has been my proud privilege to make Bangalore and specifically the Raja Ramanna Memorial lectures, the very first of the forums I am addressing on this subject in the hope that we can rouse public consciousness about the issue and in the process of doing that make our recommendations far more sophisticated than they are at present. Ours is no more than a first step: First step is always required to walk hand in hand with you and going from this first step to universal, time bound and phased elimination of nuclear weapons.

Thank you.

Question from the Audience:

Do you have any thoughts as to how you are going to have a verifiable total disarmament treaty? How do we actually set up a verification agency which is an international rather than a unilateral one?

You mentioned about the consequences of a total nuclear exchange. Now there have been studies in the past at the institute that I worked at. We did a study on a total exchange between the US and the Soviet Union and what would be the consequences – radiation-wise and so on. There are some studies already made, maybe you should try and re-visit them to see whether they are still valid or not.

Aiyar:

Thank you very much. I greatly welcome the suggestion that the studies that have been made about the consequences of nuclear conflict between the major nuclear weapon powers not only be revisited but that they be applied also to the Indo-Pakistan and the Indo-China situation. So that we can be more well-informed about what these consequences are.

With respect to verification, in comparison with the situation that obtained in 1988, when Rajiv Gandhi presented the plan, and insisted on verification at every stage, there have been a host of studies on how this verification can be undertaken. That it is not beyond human ingenuity and to discover ways of verifying this is I think first of all proved by the existence of the International Atomic Energy Agency, which is capable up to a point of undertaking verification. And verification of various

kinds including, ultimately intrusive verification. But it is not as if verification is an area that nobody knows in and out. But in addition to what the IAEA has done or can do, we also have a large number of other studies that have gone into this issue and that perhaps need to be built upon further.

But perhaps more significantly, we already have an agreement on chemical weapons. And if it is possible to verify the destruction of chemical weapons, then it should be possible in principle to also verify the elimination of nuclear weapons. So while this is a challenging field of scientific and technological study, I think we could embark upon it in a spirit of optimism rather than one of despair.

Question:

I feel that the reason why people get weapons is because they are scared. If people don't have fear then there won't be any reason for nuclear weapons. So the nuclear disarmament treaty should be followed up with more funds provided for operating defence. So if people can build a strong defence then there won't be any need for weapons.

Aiyar:

That seems to be the philosophy which has resulted in that inverted triangle. Instead of protecting ourselves, we are leaving 55% of our children suffering from malnutrition. We have one of the world's worst records of illiteracy, we have among the world's highest rates of maternal and infant mortality. Our human development record is so impressive that we held the position 134 in 1994 and have the same distinction now in 2011 which is

the latest report where we stand at position 134. We are like Alice in Wonderland running faster and faster to remain at exactly the same place.

I do not think there is anything to be proud of a record of over 8% growth in GDP. And there is a price to be paid for it. In science, economic and social development; there is one that the country as a whole seems to regard as worth paying is to ensure the security of the nation. I don't think this was our philosophy till about 1962. Then Dr Katju was perhaps our most notorious defence minister. We found our soldiers standing at the Himalayas in jogging shoes.

But perhaps now we have come overboard on the other side. There is a sacred cow in Indian politics. It is the animal that bears the name than the defence budget. And any suggestion from people, like my friend there, and myself that we might reduce the defence budget is responded with howls of traitor and unpatriotism.

Question:

Wanted to know whether your report covers the atomic power plant failures like that happened in Japan.

Aiyar:

Our report dealt with nuclear weapons rather than civilian nuclear power. And it was while we were reaching the final stage, Fukushima happened. I don't think the current agitation in Kudankulam is really the consequence of that accident. The argument being made – Japanese are notorious for getting

everything right, were put in a fix. What guarantee is there that the Indian atomic energy will get it right?

Then they look at the Germans whose reaction to Fukushima was to say that we don't want any more nuclear power in our country. And if the manufacturers of "Das Auto" don't know how to control nuclear power and decouple themselves from civil nuclear power, then can our atomic scientists do better?

I think these kinds of questions arise from a single accident like the "Three Mile Island". From 1975 all the way through contemporary times, Americans didn't have the courage to put up a single nuclear power plant. On the other hand, you have examples in the United Kingdom and France — France in particular, where dependence on nuclear power for electricity is almost 80%. They are having almost a captive source of natural gas in Algeria from where they are drawing large quantities of gas.

I think that in many ways the arguments being made in Kudankulam are bypassing each other. We have the government saying that we desperately need more electric power or electricity. I think Kudankulam's demonstrators are saying "of course, we need more power!" Try to generate it in the next village. Their argument is not against electricity. Their argument is against the danger of them being blown sky-high.

And as far as the fishermen are concerned, they are saying that in the waters where their crafts can go, it is not really possible to fish when the nuclear power plant will be throwing waste into the sea.

And when President Kalam suggests that two hundred crores be made available for infrastructure expense, the question does arise: why this was offered only after demonstrations were started? And are you sure that you will actually give it to us? And in any case if you give us two hundred crores worth of roads will that be enough to enable us to run away when Kudankulam blows up?

And the answer to that is that Kudankulam would never blow up to which the people – the demonstrators are saying “Oh yeah!” because nobody had said that Fukushima was going to blow up. I really think that the dialogue on the subject has been between deafs, bypassing the issues involved.

And that the rehabilitation, re-settlement package of the kind being discussed, in my committee, my parliamentary committee, on the land acquisition re-settlement, rehabilitation apply to the atomic energy as well. But the schedule that has been presented to us along with the draft bill exempts the atomic energy act from any of the provisions of the NARR.

It doesn't lead to any great satisfaction on the part of those likely to be affected – that they will in fact be looked after. I, sitting in Safdarjung in New Delhi, have no objection whatsoever in Kudankulam plant. Because whatever happens there, good or ill, the good would benefit me, especially because I live in Delhi. So I will get it. So I will be quite happy with Kudankulam, though I don't live near Kudankulam. And therefore there is no danger to me or to my family.

Those who live there, there is a danger, howsoever remote. And therefore the argument I think has different terms to what we have been hearing in committees of scientists who say that everything is as safe as can be. Villagers don't understand this scientific jargon.

Don't forget that from 1988 till recently while the plant was slowly coming up, nobody was objecting. Or generally those who were, were a tiny minority. Now tens of thousands are coming they probably are being fed and transported. But that doesn't change the argument. It doesn't matter whether foreign NGOs are providing the money for a bit of sambhar or a little bit of rasam. But whether people feel comfortable about having to live in the vicinity of a nuclear plant.

The one thing that people value in their own lives, it is the lives of their children. And it is livelihood that is at stake, livelihood of the poorest Indian that is at stake. And the argument that is being put forward is comforting for the rest of us, but hardly comforting for the people who live in Kudankulam.

Thank You.



After his early schooling in Welham and Doon School, Dehra Dun, **Mani Shankar Aiyar** studied Economics in St Stephen's college, New Delhi, where he received the Ranade Prize for standing First in the University. He then joined MA Tripos in Economics in Cambridge, U.K. where he also served as Secretary, Cambridge Union Society. Later Shri Aiyar received D.Sc. (*honoris causa*) from the Indian School of Mines, Dhanbad in 2006 and was made an Honorary Fellow, Trinity Hall, Cambridge University in 2010. He is also the Chairman of the India Chapter of The South Asia Foundation and Gandhi Ashram Reconstruction Trust.

Shri Aiyar has had a distinguished career as a Diplomat and a Member of Parliament. He was Consul General of India in Karachi from 1978 to 1982. He was elected to the Lok Sabha thrice and was nominated to the Rajya Sabha. For his significant contributions to the Indian Parliament he was conferred the Outstanding Parliamentarian Award by the President of India in 2006. Shri Aiyar also served as Minister in the Ministries for Panchayati Raj, Petroleum and Natural Gas, Youth Affairs and Sport and Development of North-East Region between 2004 and 2009. Shri Aiyar also has to his credit several publications: *A Time of Transition: Rajiv Gandhi to the Twenty-First Century*, 2009; *Confessions of a Secular Fundamentalist*, 2004; *Rajiv Gandhi's India* [4 Volumes]; *Pakistan Papers*, 1994; and *Remembering Rajiv*, 1992.