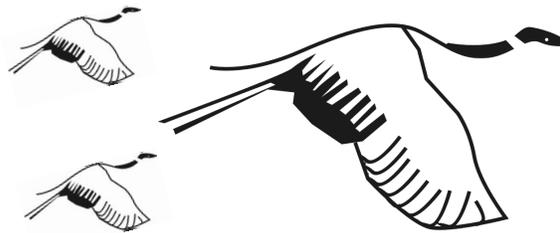


# Peace Now!



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The Bulletin of the Coalition for Nuclear Disarmament & Peace

## EDITORIAL

SINCE our last issue in March, there is a complete standstill on the "nuclear deal" front. The qualifying prefix, "Indo-US", had of course become somewhat both redundant and misleading by then with the 45-member Nuclear Suppliers Group (NSG) eventually granting the hard fought for waiver, at the end of a nail-biting tussle, followed by India signing the India-specific safeguards (i.e. inspection - of its nuclear reactors voluntarily designated as "civilian") agreement with the International Atomic Energy Agency (IAEA), on February 2 last year. And, even more so, as the US appears to have quite a few laps fallen behind the major competitors France and Russia in securing substantive contracts in the coming days. The prefix of course remains profoundly meaningful in tracing and comprehending the genesis of the "deal" and how the US under Bush eventually pulled it through amidst considerable rough weather. How Pakistan and China were tamed. How New Zealand, Ireland, Austria, Switzerland, Sweden, Norway, Finland and Denmark were finally bulldozed. (It is not for nothing a spokesperson of the Indian Congress Party had publicly suggested that (just dethroned) Bush - a universally hated figure - be honoured with Bharat Ratna - the highest Indian civilian award, on the occasion of the last Republic Day.) Be that as it may, as we had reported last time, India is yet to "ratify" the agreement with the IAEA. The process remained stalled understandably because of the intervening parliamentary election.

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While talking of parliamentary election, the Congress has come back to power, for another five-year term, at the head of its somewhat retooled coalition, United Progressive Alliance (UPA), with significantly increased numbers, though still quite a distance behind the halfway mark on its own. (Never mind the cacophonous noises suggesting otherwise.) The "deal" hardly ever surfaced as an "election issue", rather surprisingly, given all the eyeball grabbing tamashas enacted on the floor of the Indian parliament in July last year. That would, however, not stop the ruling party claiming popular endorsement for the deal and the further process to follow - i.e. installation of new nuclear power plants - is likely to be stepped considerably up. The only possible hiccup that is visible at the moment is paucity of investible funds given the serious downturn in global economy. But that may not be too great a hurdle.

It is precisely in this context, a national convention on "The Politics of Nuclear Energy and Resistance" is going to be held from June 4 -6 in Kanyakumari, the southernmost tip of India and just a stone's throw away from Koodankulam - site of an upcoming nuclear power plant, to deliberate its implications on the lives of affected local populace in particular and people and environment in general and chalk out appropriate responses. This issue is dedicated to that event. A number of articles and reports of grassroots struggles has been included here to befit the occasion. Here, in this editorial note, we would only recall that nuclear power is, as of now, uneconomic and highly capital intensive

and thereby the expenditure pattern is overwhelmingly front-loaded tending to crowd out all other rational alternatives; it is intrinsically hazardous across the complete fuel cycle - right from mining to power plant - as it involves production and processing of radioactive materials; there is no safe and dependable method for waste disposal let alone dismantling of the outlived facilities; it is potentially catastrophic - chillingly demonstrated by the Chernobyl accident on April 26 1986; has a large technological overlap with the weapons programme and thereby tends to provide a strong political push towards that; and further accentuates a highly centralised "development" pattern which is by its very nature deeply destructive of ecology.

Coming back to the election, that is now just behind us, it needs to be mentioned here that the Prime Ministerial candidate of the BJP, the second largest party, had made a bold public declaration as regards his determination to carry out further nuclear test explosions, "if required", to promote the weapons programme just on the eve of the fifth and final round of polls. With that in mind, consistent with our firm stand in favour of global, regional and national nuclear disarmament, we welcome the drubbing that his party has received. Regardless of whether it has got anything to do with that declaration.

On April 5, the newly elected President of the United States issued an open call for a "world without nuclear weapons". We do strongly welcome that even while being keenly aware of the serious

limitations in terms of his refusal to put forward a specific time-frame and assertion of his faith in the dubious "deterrence" doctrine, even if only implicitly. Coming from the mouth of the head of the most powerful state on the planet and the only one which had committed horrendous mass murders through the actual use of this unique weapon, the declaration is of historic proportions. It has consequently reenergised the global anti-nuclear movements which had in any case been gearing up for the upcoming (Nuclear) Non-Proliferation Treaty (NPT) Review Conference early next year. (The final round of the meeting of the Preparatory Committee (PrepCom) has just been over.) The key towards the goal of universal nuclear disarmament, however, appears to be a Nuclear Weapons (Abolition) Convention. The then Indian Prime Minister Rajiv Gandhi had suggested broadly on that line at a special session of the UN General Assembly way back on June 9, 1988. That makes it especially incumbent upon the ruling Congress Party, swearing by the legacy of the departed leader, to push that "Peace Plan" with all sincerity. We have included a number of thoughtful articles covering all these including a personal dispatch from a delegate attending the PrepCom.

At the end, we pay our rich and sincere tribute to the memory of Smitu Kothari, a longstanding friend of the CNDP and the Peace Now, who passed away on the March 23 last.



## Smitu Kothari: *In memoriam*

Zia Mian

**S**MITU Kothari, one of South Asia's leading peace and justice scholar-activists passed away on March 23 last. Smitu was well known for his many years of working on behalf of the poor and the dispossessed, indigenous peoples, people displaced by development projects, human rights, and many other causes. He was also an important figure in the Pakistan-India people to people peace process and the creation of a movement against nuclear weapons in both countries.

Over the past three decades, during a contentious period of India-Pakistan relations in which both states developed nuclear weapons, diverse civil society initiatives to build national and cross-border networks for peace and cooperation have been taking root. Over the years, it has evolved into a sophisticated and influential people-to-people dialogue at many levels. This citizens' diplomacy movement has embraced thousands of activists, scholars, business people and retired government officials with interests in issues ranging from national security, cross-border conflict, development, education, ecology, the rights of women and minorities, arts and culture, and economy and trade, to mention a few. Travelling between the two countries when visa restrictions permitted, meeting in third countries when opportunity allowed, Smitu was a significant player in many of these efforts, including

as part of the Pakistan-India Peoples Forum for Peace and Democracy, founded in 1994. One of his last projects was editing a volume of essays, "Bridging Partition," on the history, vision and experience of the Pakistan-India peoples peace processes.

A central feature of these civil society initiatives was a shared vision that it was necessary to challenge the state (be it India or Pakistan) and its claim to define, represent and negotiate the national interest. Nowhere was this challenge more important than the question of national security and nuclear weapons. Smitu was involved with both anti-nuclear movements in India and in Pakistan. He recognized early on the need to organize and present the enormous diversity of voices, traditions and approaches that make up the peace movement as an act of resistance against the nuclear state, and as a way to provide intellectual and organizational resources for would be activists and the public. This culminated in the edited volume, "Out of The Nuclear Shadow," published in India in 2001 and in Pakistan in 2002.

Smitu believed that a progressive anti-nuclear politics had to be rooted in the lives and conditions of ordinary people, in their aspirations for peace and justice, and in the struggle to transform the basic structures that shape our lives and societies, and the world today. This view was expressed most clearly in the introduction

he co-authored for "Out of The Nuclear Shadow":

"There is a hidden history of opposition to the nuclear future in South Asia. Far removed from the centres of political authority, at the sites where nuclear facilities have been and are being built, be it uranium mines or nuclear power plants, local communities have fought back. Their struggles are often not couched in the language of big ideas of social change and protest, but in the small traditions of livelihoods, community rights, displacement, the environment, public health, the right to information. They have marched, fasted, blockaded, occupied, gone to court, they have protested to survive. As the statements against nuclear weapons from scientists, academics, journalists, writers and poets, doctors, former soldiers, civic groups, and social movements from India and Pakistan gathered in this volume show, there are now new forces joining the struggle...."

The tasks that confront the peace movements in India and Pakistan are unprecedented. Not only must they educate their fellow citizens in what it means to live with nuclear weapons in their midst, they must do so without creating such fear that people are immobilised. They must organise to abolish nuclear weapons but cannot concentrate simply on the technology, politics, economics and culture of nuclear weapons because nuclear weapons cannot

be abolished from South Asia or globally while leaving everything else unchanged. The solution to the bomb does not lie only in the area of nuclear weapons, the bomb is not its own answer. To abolish nuclear weapons will require confronting and transforming the fundamental structures of injustice within and

between states and globally that are the causes of insecurity, conflict, and war."

His gentle presence, his kind voice, and thoughtful and loving wisdom, will be missed by many.

*Zia Mian is a highly acclaimed Pakistani-American physicist, nuclear expert, an author and research scien-*

*tist at the Princeton University, US. He is a prominent peace activist and closely associates with the CNDP, and Peace Now.*



## **A. Obama's Prague Speech and After**

### **I. Excerpts from US President Barack Obama's Prague Speech on April 5, 2009 on Nuclear Weapons and Disarmament**

**N**OW, one of those issues that I'll focus on today is fundamental to the security of our nations and to the peace of the world - that's the future of nuclear weapons in the 21st century.

The existence of thousands of nuclear weapons is the most dangerous legacy of the Cold War. No nuclear war was fought between the United States and the Soviet Union, but generations lived with the knowledge that their world could be erased in a single flash of light. Cities like Prague that existed for centuries, that embodied the beauty and the talent of so much of humanity, would have ceased to exist.

Today, the Cold War has disappeared but thousands of those weapons have not. In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up. More nations have acquired these weapons. Testing has continued. Black market trade in nuclear secrets and nuclear materials abound. The

technology to build a bomb has spread. Terrorists are determined to buy, build or steal one. Our efforts to contain these dangers are centered on a global non-proliferation regime, but as more people and nations break the rules, we could reach the point where the center cannot hold.

Now, understand, this matters to people everywhere. One nuclear weapon exploded in one city - be it New York or Moscow, Islamabad or Mumbai,

Tokyo or Tel Aviv, Paris or Prague - could kill hundreds of thousands of people. And no matter where it happens, there is no end to what the consequences might be - for our global safety, our security, our society, our economy, to our ultimate survival.

Some argue that the spread of these weapons cannot be stopped, cannot be checked - that we are destined to live in a world where more nations and more people possess the ultimate tools of destruction. Such fatalism is a deadly adversary, for if we believe that the spread of nuclear

weapons is inevitable, then in some way we are admitting to ourselves that the use of nuclear weapons is inevitable.

Just as we stood for freedom in the 20th century, we must stand together for the right of people everywhere to live free from fear in the 21st century. And as nuclear power - as a nuclear power, as the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act. We cannot succeed in this endeavor alone, but we can lead it, we can start it.

So today, I state clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons. I'm not naive. This goal will not be reached quickly - perhaps not in my lifetime. It will take patience and persistence. But now we, too, must ignore the voices who tell us that the world cannot change. We have to insist, "Yes, we can."

Now, let me describe to you the trajectory we need to be on. First, the United States will take

concrete steps towards a world without nuclear weapons. To put an end to Cold War thinking, we will reduce the role of nuclear weapons in our national security strategy, and urge others to do the same. Make no mistake: As long as these weapons exist, the United States will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies - including the Czech Republic. But we will begin the work of reducing our arsenal.

To reduce our warheads and stockpiles, we will negotiate a new Strategic Arms Reduction Treaty with the Russians this year. President Medvedev and I began this process in London, and will seek a new agreement by the end of this year that is legally binding and sufficiently bold. And this will set the stage for further cuts, and we will seek to include all nuclear weapons states in this endeavor.

To achieve a global ban on nuclear testing, my administration will immediately and aggressively pursue U.S. ratification of the Comprehensive Test Ban Treaty. After more than five decades of talks, it is time for the testing of nuclear weapons to finally be banned.

And to cut off the building blocks needed for a bomb, the United

States will seek a new treaty that verifiably ends the production of fissile materials intended for use in state nuclear weapons. If we are serious about stopping the spread of these weapons, then we should put an end to the dedicated production of weapons-grade materials that cre-

ate them. That's the first step.

Second, together we will strengthen the Nuclear Non-Proliferation Treaty as a basis for cooperation.

The basic bargain is sound: Countries with nuclear weapons will move towards disarmament, countries without nuclear weapons will not acquire them, and all countries can access peaceful nuclear energy. To strengthen the treaty, we should embrace several principles. We need more resources and authority to strengthen international inspections. We need real and immediate consequences for countries caught breaking the rules or trying to leave the treaty without cause.

And we should build a new framework for civil nuclear cooperation, including an international fuel bank, so that countries can access peaceful power without increasing the risks of proliferation. That must be the right of every nation that renounces nuclear weapons, especially developing countries embarking on peaceful programs. And no approach will succeed if it's based on the denial of rights to nations that play by the rules. We must harness the power of nuclear energy on behalf of our efforts to combat climate change, and to advance peace opportunity for all people.

But we go forward with no illusions. Some countries will break the rules. That's why we need a structure in place that ensures when any nation does, they will face consequences.

Just this morning, we were reminded again of why we need a new and more rigorous approach

to address this threat. North Korea broke the rules once again by testing a rocket that could be used for long range missiles. This provocation underscores the need for action - not just this afternoon at the U.N. Security Council, but in our determination to prevent the spread of these weapons.

Rules must be binding. Violations must be punished. Words must mean something. The world must stand together to prevent the spread of these weapons. Now is the time for a strong international response - now is the time for a strong international response, and North Korea must know that the path to security and respect will never come through threats and illegal weapons. All nations must come together to build a stronger, global regime. And that's why we must stand shoulder to shoulder to pressure the North Koreans to change course.

Iran has yet to build a nuclear weapon. My administration will seek engagement with Iran based on mutual interests and mutual respect. We believe in dialogue. But in that dialogue we will present a clear choice. We want Iran to take its rightful place in the community of nations, politically and economically. We will support Iran's right to peaceful nuclear energy with rigorous inspections. That's a path that the Islamic Republic can take. Or the government can choose increased isolation, international pressure, and a potential nuclear arms race in the region that will increase insecurity for all.

So let me be clear: Iran's nuclear and ballistic missile activity poses a real threat, not just to

the United States, but to Iran's neighbors and our allies. The Czech Republic and Poland have been courageous in agreeing to host a defense against these missiles. As long as the threat from Iran persists, we will go forward with a missile defense system that is cost-effective and proven. If the Iranian threat is eliminated, we will have a stronger basis for security, and the driving force for missile defense construction in Europe will be removed.

So, finally, we must ensure that terrorists never acquire a nuclear weapon. This is the most immediate and extreme threat to global security. One terrorist with one nuclear weapon could unleash massive destruction. Al Qaeda has said it seeks a bomb and that it would have no problem with using it. And we know that there is unsecured nuclear material across the globe. To protect our people, we must act with a sense of purpose without delay.

So today I am announcing a new international effort to secure all vulnerable nuclear material around the world within four years. We will set new standards, expand our cooperation with Russia, pursue new partnerships to lock down these sensitive materials.

We must also build on our efforts to break up black markets,

detect and intercept materials in transit, and use financial tools to disrupt this dangerous trade. Because this threat will be lasting, we should come together to turn efforts such as the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism into durable international institutions. And we should start by having a Global Summit on Nuclear Security that the United States will host within the next year.

Now, I know that there are some who will question whether we can act on such a broad agenda. There are those who doubt whether true international cooperation is possible, given inevitable differences among nations. And there are those who hear talk of a world without nuclear weapons and doubt whether it's worth setting a goal that seems impossible to achieve.

But make no mistake: We know where that road leads. When nations and peoples allow themselves to be defined by their differences, the gulf between them widens. When we fail to pursue peace, then it stays forever beyond our grasp. We know the path when we choose fear over hope. To denounce or shrug off a call for cooperation is an easy but also a cowardly thing to do. That's how wars begin. That's where

human progress ends.

There is violence and injustice in our world that must be confronted. We must confront it not by splitting apart but by standing together as free nations, as free people. I know that a call to arms can stir the souls of men and women more than a call to lay them down. But that is why the voices for peace and progress must be raised together.

Those are the voices that still echo through the streets of Prague.

Those are the ghosts of 1968. Those were the joyful sounds of the Velvet Revolution. Those were the Czechs who helped bring down a nuclear-armed empire without firing a shot.

Human destiny will be what we make of it. And here in Prague, let us honor our past by reaching for a better future. Let us bridge our divisions, build upon our hopes, accept our responsibility to leave this world more prosperous and more peaceful than we found it.

Together we can do it.

[Source:  
<[http://www.huffingtonpost.com/2009/04/05/obama-prague-speech-on-nu\\_n\\_183219.html](http://www.huffingtonpost.com/2009/04/05/obama-prague-speech-on-nu_n_183219.html)>.]




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## **II. CNDP Press Release on Obama's Call for a "world without nuclear weapons"**

**T**HE Coalition for Nuclear Disarmament and Peace (CNDP) welcomes United States President Barack Obama's call for a "world without nuclear

weapons" and his assertion that "the existence of thousands" of these is the Cold War's "most dangerous legacy". Equally worthy is his acknowledgement that

the US bears a special "moral responsibility" to promote disarmament as the only power "to have used a nuclear weapon", and his emphatic rejection of

the idea that the spread and thereby use of nuclear weapons is inevitable.

However, though he has talked of quite a few specific measures, this call is not accompanied by adequate changes in doctrines and strategic thinking. Obama continues to adhere to the fatally flawed doctrine of nuclear deterrence, rely on the dangerous "Star Wars"-style Ballistic Missile Defence programme, and stresses a stronger non-proliferation regime with selective application, rather than disarmament. Although Obama's call for rapidly bringing into force the Comprehensive Test Ban Treaty and stopping

fissile material production as intermediate measures is welcome, he has made no proposal for nuclear weapons elimination in the foreseeable future.

Despite limitations, Obama's is a call of historic potential. The statement puts nuclear disarmament on the global agenda and opens an opportunity to make creative, principled and realistic proposals for concrete steps towards a nuclear weapons-free world.

We call upon the Indian government to respond to this historic call by committing itself to the goal of nuclear weapons elimination - regional as well as global - by updating the 1988

Rajiv Gandhi plan for stage-by-stage abolition of these weapons of terror and by taking a leading role in the global arena to have a Nuclear Weapons (Abolition) Convention as the instrument for effecting universal nuclear disarmament in a time-bound manner.

*Anil Chaudbury, Praful Bidwai,  
G. Subramanian*

**On behalf of the National  
Coordinating Committee, CNDP**

April 13, 2009



### **III. Neither Disarmament nor Peace**

**Editorial, Economic and Political Weekly, April 18, 2009**

**B**ARACK Obama's selective plan for nuclear disarmament is meant only to further the US' strategic objectives. United States President Barack Obama's speech in Prague earlier this month on the road to global nuclear disarmament, the first such statement since he took office, will achieve much less than what it claims to promise. Of course, if one were simply to compare Obama's intentions with the record of the previous Bush administration one could express a mild sense of relief.

A public commitment to the goal of a nuclear-free world has been forcefully stated even, if unsurprisingly, the time-scale for achieving this - "perhaps not in my lifetime" - has been safely extended. There will be negotia-

tions to conclude a Strategic Arms Reduction Treaty III with Russia to make further mutual cuts in warheads and to reduce deployments. Some encouragement is to be drawn as well from Obama's statement that the US "will reduce the role of nuclear weapons in our national security strategy". Any retreat from the Bush era's blurring of the fire-break between possible use of nuclear and conventional weapons in war planning will be welcome. Best of all is Obama's declaration that he will work to get the US Congress to ratify the Comprehensive Test Ban Treaty, although New Delhi will not be happy to hear this, since a corollary of these efforts will be to put pressure on India also to join the treaty. But that is about all as far

as positives go.

Shortly after the collapse of the Soviet Union and the end of the cold war, there was talk in Europe of the North Atlantic Treaty Organisation (NATO) either forgoing the nuclear umbrella altogether, or at least of formally abandoning its "First Use" doctrine even in the face of a conventional attack. Indeed, a "No First Use" (NFU) commitment by all the existing nuclear weapons states (NWSs) barring India and China, which have already declared NFU, is worth striving for. But not only is President Obama not interested in such declarations he has endorsed extended deterrence, i.e., the continued presence of nuclear weapons in non-nuclear NATO countries, as well as justi-

fies Ballistic Missile Defence (BMD) preparations-emplacements in Poland and the Czech Republic. These preparations are directed against Russia and China and represent US determination to dominate a nuclearised outer space. Pretending that Iran is the focus of such emplacements in central and eastern Europe, as Obama said at Prague, is dishonest and ingenuous since only the most strategically naïve will accept this.

For all of Washington's new willingness to talk to Teheran, one must distinguish between what has changed - a greater flexibility in tactics - from what has not, namely, the long-term goal of strategically containing Iran in central and west Asia. While the US is certainly opposed to Iran acquiring nuclear weapons, it is also using this bugbear as a justification for squeezing and isolating Iran for geopolitical purposes that are independent of the specifically nuclear issue. In short, Obama is no different from his predecessors in seeking to sustain US global dominance and therefore in subordinating his nuclear policies to this overriding concern. This then requires a thoroughly selective and hypocritical approach to nuclear discourse and practice, i e, a division between the nuclearly "responsible" and the nuclearly "dangerous". In the former category fall the US and its allies like UK, France, Israel, India and a Pakistan state that remains out-

side Islamist control. China and Russia qualify by virtue of being established nuclear powers, which the US does not as yet designate as obvious "enemies". In the latter group are Iran, North Korea and Islamist terrorist groups that might in the future acquire a bomb. The three, especially the last, are assumed to be somehow much more irrational (and therefore dangerous) as compared to a rationally behaving US that has actually used, and repeatedly threatened the use of nuclear weapons, as well as generating with Russia an insane arms race complete with huge overkill capacities and stockpiles!

Obama has falsely accused North Korea of breaking rules when it has not, since it withdrew from the nuclear Non-Proliferation Treaty (NPT) before carrying out a bomb test, and has as much right as India or any other country to carry out missile test flights even as we can deplore all such tests by all countries. As for worries about Iran, all that the US has to do is push for an early and unconditional establishment of the Middle East Weapons of Mass Destruction Free Zone (MEWMDFZ) that would include Israel and which Iran and all 22 members of the League of Arab States have long supported. It is the determination to preserve Israel's arsenal as part of a wider geopolitical ambition that is the key obstacle to the establishment of such a nuclear-free zone. The fundamental thrust of Obama's

speech then is not towards the institutionalising of a powerful or cumulative momentum for regional or global disarmament but towards the institutionalising of a stronger but selectively applied non-proliferation regime.

When President Obama talks of strengthening the NPT he means suborning it so as to deny certain countries like Iran from developing a complete nuclear fuel cycle - hence the idea of an international fuel bank controlled by the US as well as some select others. Similarly, his support for a Fissile Materials Cut-off Treaty is a deception since the US is opposed to bringing in stockpile reduction. The reality is that the US and Russia already have huge stockpiles of such fissile materials to which more would be added when more warheads are dismantled. Thus, merely stopping production is of no real consequence to the big NWSs. Obama's purpose then in promising to hold a Global Summit on Nuclear Security in 2010 is obvious. It is to obtain a wider, more multilateral form of legitimation for the US to continue with nuclear policies that - barring some positive steps - remain fully consonant with the overarching perspective of sustaining its global dominance.

[Source: <<http://epw.in/epw/uploads/articles/13441.pdf>>.]



## **IV. Response to President Obama's Prague Speech: "Bridging the Vision and the Corridors of Power"**

**Judge C G Weeramantry\***

A world free of nuclear weapons has been the dream of all humanity ever since those dreaded weapons first made their appearance on the global scene. However, there has always been a seemingly unbridgeable gulf between such dreams and aspirations and the thought processes that operate in the corridors of power. There they are dismissed as visionary and idealistic, for the world of realpolitik operates on power and not on ideals.

The speech of President Obama in Prague on April 5th 2009 has built a significant bridge between the world of aspiration and the world of power. Here, from the world's most exalted seat of power, has come a call for an end to this menace which threatens the future of humanity, imperils all civilization and jettisons the values painfully built up over millennia of thought and sacrifice.

The message that leaps forth from the heart of humanity for the abolition of these weapons has never struck an answering chord from the wielders of nuclear power. The conviction with which President Obama emphasizes America's commitment to a world without nuclear weapons sends rays of hope radiating through the entire world community.

For more than sixty years since Hiroshima and Nagasaki the world has been appalled by

the unprecedented power of nuclear weapons to produce human suffering on a scale never visualized before. Attila and Genghis Khan pale into insignificance as perpetrators of cruelty when compared to the bomb. Yet this weapon which violates every canon of humane conduct and humanitarian law has continued to be protected by those who have it and to be sought after by those who do not, while the voice of protest passes muted and unheard.

The easier accessibility of the necessary knowledge to put together a crude nuclear weapon grows by the day, and far from humanity being able to remove from its horizons this threat to its very existence, the world permits the danger from this source to keep growing day by day, month by month and year by year. Now more than ever before, there is an imperative need for humanity to jettison this danger to its very survival and the survival of all that it holds dear. As the President so rightly observes, the risk of a nuclear attack has increased. Indeed it has increased to the point where we need urgent action to eliminate it in the next few years rather than the next few decades.

Possessors of the nuclear weapon have propagated the myth that the possession of the nuclear weapon has kept us free from nuclear war for over sixty

years, when on the contrary it has brought us near to total destruction time and again. The erection of the Berlin wall 1948, the Suez crisis 1956, and the Cuban missile crisis 1962 are but a few of a series of occasions when good fortune rather than good judgment saved humanity from catastrophe. As President Obama has so rightly observed, "generations have lived with the knowledge that their world could be erased in a single flash of light".

These are reasons why President Obama's speech needs to be greeted world wide with hope, support and admiration. Affirmative steps are urgently required from the power centres of this world if the desired result is to be achieved. The US call is a great expression of world leadership in one of the most important calls to action we have witnessed in recent times.

When the 20th century dawned there was a universal hope that the mistakes of the previous century of war would be left behind and that a brand new century of peace could be planned. That hope was bungled and humanity made a sorry mess of the 20th century which became the bloodiest century on record.

With the dawn of the 21st century there was likewise a universal yearning for a century of peace. We have however entered

it on a note of war and if we do not correct our course, we will have no 22nd century to put our house in order. If the 20th century was our century of lost opportunity the 21st is our century of last opportunity, because no other century has commenced with humanity having the power to destroy itself and all its achievements over the centuries.

It is in the next few years that we need to put our affairs in order on the nuclear front, because as President Obama has observed the risk of nuclear attack has gone up. Indeed the nuclear danger grows from day to day. A number of different causes induce this urgency. Among these are;

- the growth in the number of nuclear powers
- the growth in the number of states seeking nuclear power
- the increase in the power and spread of terrorist groups
- the proliferation of the necessary knowledge to make a nuclear weapon
- the easy availability of materials necessary to put together a nuclear weapons with tens of thousands of tons of uranium being discharged from hundreds of nuclear reactors across the world
- the lack of a comprehensive record even by the International Atomic Energy Agency IAEA, of such material and the trafficking in such material
- the ever present possibility

of nuclear accidents with tens of thousands of nuclear weapons in storage and many of them in readiness for use

- the launch on warning capability LOWC of several countries, with hair trigger devices set to detect incoming objects and respond to them within minutes, if not seconds
- the increase in the number of mini-wars raging throughout the world which could attract the intervention of more powerful participants
- the increasing disregard for international law in the world community
- the increasing number of flashpoints of international tensions
- the continuing disregard of international law and international obligations by the nuclear powers
- continued research on and improvement of nuclear weapons
- the difficulty of maintaining nuclear stockpiles, inventoring them, storing them and policing them
- the increasing number of suicide bombers now available for carrying out desperate projects

The International Court of Justice unanimously pronounced in 1996 that there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under

strict and effective international control. There can be no weightier pronouncement on international law than a unanimous decision of the International Court of Justice. Any nuclear power that disregards this decision is a violator of international law. President Obama's call for action is an important step towards upholding the integrity of international law.

For all these reasons President Obama's statement is a landmark event on the international scene. It gives hope where earlier there was total resignation to the inevitability of a world dominated by nuclear weapons. It shows that the human spirit can rise triumphant against seemingly insuperable obstacles. It shows that we still enjoy the possibility of visionary and humanitarian world leadership.

As President Obama has observed the United States as the only power to have used the nuclear weapon "has a moral responsibility to act. We cannot succeed in this endeavour alone, but we can lead it, we can start it"

Here is a clarion call to action which cannot but induce hope and happiness in all who have lived so long under the shadow of the mushroom cloud. It sends a thrill of optimism into the hearts of those who have despaired at the insensitivity that prevails in high places on such cardinal issues on which the world has long waited for global leadership.

In short, the Prague speech was an outstanding statement by an outstanding leader on an issue of seminal importance to

the human future. The least that can be done is for all people of goodwill across the world to give their whole hearted support to this magnificent new initiative to work towards a world which will live once more without the nuclear weapon hanging like the sword of Damocles over the

human habitat, human civilization, human values and humanity itself.

April 20 2009.

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President International Association of  
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Education Prize*

[Source: <<http://lcnp.org/disarmament/2009April20Weeramantry.pdf>>.]



## **V. “We Welcome the Initiatives for a Nuclear Weapon-free World and Call for an International Agreement on a Total Ban of Nuclear Weapons”**

### **Statement by Japan Council against A & H Bombs (GENSUIKYO) on the Occasion of the 3rd PrepCom. of the 2010 NPT Review Conference**

**W**E pay tribute to the work of all governments and NGO representatives to the 3rd Preparatory Committee Meeting of the 2010 NPT Review Conference, and wish for a successful outcome of the discussion.

With the 2010 NPT Review Conference just one year ahead, there is a real opportunity before us to make the world set free of nuclear weapons.

US President Obama declared on April 5, 2009 that the USA would seek the goal of a world without nuclear weapons. On April 20, Russian President Medvedev responded to it by saying that the work on a new START could facilitate the process of moving towards a world without nuclear weapons. He further added that the Big Five, and Russia and the USA in particular, had a "special responsibility" to achieve it.

For nearly 64 years since Hiroshima and Nagasaki suffered the nuclear tragedies, the call of the Hibakusha, the A-bomb sur-

vivors, that the humans and nuclear weapons cannot co-exist, has been reaching the hearts of ever more people around the world.

True, the situation on nuclear weapons does not allow easy optimism, when more than 20,000 nuclear warheads are still stockpiled or deployed and when the danger of nuclear proliferation is real. However, while nuclear weapons have proliferated both vertically and horizontally, the overwhelming majority of the peoples and their governments have refused to join in the nuclear arms race and chosen a road to the elimination of nuclear weapons. This is demonstrated by the large number of the governments that support nuclear disarmament resolutions at each annual session of the UN General Assembly, by the spreading nuclear weapon-free zones that cover the globe, and by the fact that of 190 NPT signatories, 185 countries as "Non-nuclear weapons states" have chosen to renounce the "nuclear option",

and are placing themselves under the non-proliferation obligations.

If the USA and Russia, the two major powers that hold some 95% of the world's nuclear arsenals, join in this global trend, and seek together to achieve a nuclear weapon-free world, the day will not be too far to see the world finally liberated from the nightmare of nuclear annihilation. We must further take into account other encouraging signs, such as, that the UK government is taking common steps in pursuit of a nuclear weapon-free world, that the Chinese governments votes every year in support of a UN resolution calling for a start of negotiations leading to the elimination of nuclear weapons, and that Indian leaders have expressed their support of a pursuit for the elimination of nuclear weapons.

Making the best of all these positive conditions, we call on all governments, both inside and outside NPT, to make intensive effort for one year to the next NPT Review Conference to

broaden and consolidate an agreement to move the international politics forward towards a total ban and the elimination of nuclear weapons. Following three points are our proposal, which we consider are basic to promoting this enterprise.

### ***1. Pursuing a political agreement on a total ban of nuclear weapons***

First, we urge that a ban and the elimination of nuclear weapons be made a consensus political agreement to be pursued by the international community.

We welcome all proposals put forward by many governments and NGOs that call for such immediate measures as; a further drastic cut in strategic nuclear arms in a new Russo-US treaty replacing the current START-1, ratification and earliest possible enforcement of CTBT, and a start of negotiations of a FMCT with verification. As these are all to have been agreed upon by previous NPT Review Conferences, they should be implemented without further delay, along with other agreed goals, including a nuclear weapon-free zone in the Middle East.

A simple accumulation of partial measures, nevertheless, does not automatically lead to the total elimination of nuclear weapons, as all past disarmament negotiations have amply proved it. To eliminate nuclear weapons, a purposeful effort is needed to make it an agreed goal, start and complete negotiations on it, and agree on a binding treaty to ban and eliminate them. The division and discrimination between

nuclear "haves" and "have-nots" embedded in NPT have created a deep rift and distrust between them. If the full compliance of non-proliferation obligation by the side of non-nuclear weapons states is needed, the international community must also urge the nuclear weapons states to act by the same rule, and thus overcome the division, in pursuing a "world without nuclear weapons".

We suggest that every arms control and disarmament agreement henceforth, bilateral and multilateral alike, including a new treaty replacing the current START 1, will declare that it is a part of the effort for the total elimination of nuclear weapons. Further, a world with no nuclear weapons will become possible when only all sovereign states come to agree on it. To this end, we call on all UN member governments to make all that they can to build a consensus resolution in support of a total ban and the elimination of nuclear weapons, as well as the actual start of negotiations, in the forthcoming session of the UN General Assembly. This will certainly lay basis for the success in the next NPT Review Conference.

### ***2. Overcoming Nuclear Deterrence and "Nuclear Umbrella" Doctrines***

Second, a "nuclear weapon-free world" requires a bold shift away from the security relying on nuclear weapons.

Since the nuclear bombs were used over Hiroshima and Nagasaki till now, the development of nuclear weapons have

always been promoted on the ground that they are the means for "security" or for "deterrence". But what nuclear weapons have actually posed was the grave danger that would lead even to the extermination of the human race, and far from ensuring the "security". The reasoning, such as, for "security" and "deterrence", has also provided a strong incentive to opponents to develop and possess their own nuclear weapons. All cases of nuclear proliferation started from here.

To break with this vicious cycle, those who have nuclear arsenals or those who rely on nuclear weapons of any other country should abandon the notion of "nuclear deterrence", including "extended nuclear deterrence", the so-called "nuclear umbrella". We call for initiatives for a ban on the use of nuclear weapons, and above all for a ban on the first use of them. Instead, the means for the security should thoroughly be sought and found in diplomacy, such as dialogues, talks, negotiations and other peaceful means provided by the UN Charter.

### ***3. Telling real stories of Hiroshima and Nagasaki to Succeeding Generations***

Third, we call on all governments and NGOs to endeavor to make known to citizens, and young people in particular, the real stories and messages of the Hibakusha, the A-bomb survivors of Hiroshima and Nagasaki, so that the humans will consolidate their strong will to not allow nuclear weapons once and for all.

As humans created nuclear bombs, humans can abolish them. Yet, a nuclear weapon-free world, thus emerged, will not be the same world as it was before the bombs were used on Hiroshima and Nagasaki, as the humans have already knowledge and means to build them. A nuclear weapon-free world will only be sustained on the strong collective will of the human race that they will not co-exist with nuclear weapons". This is what we must build by telling the inhuman nature of nuclear weapons

from generations to generations.

It is essential in this effort to ensure that people will know the "atomic hells" that the Hibakusha witnessed and the struggle they waged for their survival. The Hibakusha of Hiroshima and Nagasaki are being aged, and not much time is left. We express our appreciation to many governments, local communities and NGOs who have already invited the Hibakusha to speak or have organized A-bomb photo exhibitions, and further call on all governments to make many more

opportunities for the stories of the Hibakusha to be told and the photos and mementos to be shown to their citizens towards the next NPT Review Conference.

May 2009

**Japan Council against A & H Bombs (GENSUIKYO) is the oldest and leading peace organization in Japan, founded on September 19 1955.**



## **B. Towards Nuclear Disarmament**

### **I. Regional and Global Nuclear Disarmament: Going Beyond the NPT**

**Achin Vanaik\***

**T**HE importance of the accession of US President Barack Obama for the prospects of nuclear disarmament should not be exaggerated. He is still pretending that the placement of missile interceptors in Poland and the Czech Republic is about Iran and on this fraudulent basis is trying to negotiate with the Russians. But even though he has said nothing so far about the wider Ballistic Missile Defence or BMD project, and of course remains hypocritically silent about Israel's nuclear weapons, he is nonetheless seeking to negotiate with Russia about possible arms reductions. This seems an opportune time then to revisit the issue of regional and global nuclear disarmament and this article is about where we stand today and what future directions in the cause of nuclear disarma-

ment may be worth pursuing.

It is structured as follows: (1) Explaining India's decision to go openly nuclear in 1998 and the meaning of the Indo-US nuclear deal; (2) evaluating the Nuclear Non-Proliferation Treaty (NPT); (3) revisiting the much debated issue of the efficacy of nuclear deterrence; and (4) post-cold war dangers and what now?

#### **Indian acquisition and the Deal**

Much of the commentary on Indian acquisition of the bomb has seen a basic line of continuity between India's Pokhran-I test in 1974 and those of 1998 when it declared its open nuclear status. This is certainly the basic argument put forward by the pro-bomb Indian lobby that mostly emerged after Pokhran-II with

one major qualification made more specifically by the Bharatiya Janata Party (BJP) and the Rashtriya Swayamsevak Sangh (RSS). It was the BJP-led National Democratic Alliance that formed the coalition government in 1998 but all the other political parties in the ruling coalition were kept completely in the dark about the decision while the unelected RSS was privy to the decision to go nuclear.<sup>1</sup> This combine claimed both continuity with the past and a distinctive break - the decision was necessary and desirable and largely prepared by past actions but only the Sangh had the "courage" to finally cross the nuclear Rubicon.

Elsewhere the pro-bomb lobby has insisted that continuity not rupture is what ultimately explains Pokhran-II.

In claiming as much, the

structure of argument has to lean much more strongly towards emphasising the "logic" of "nuclear preparations" and the politics surrounding this, rather than towards the more complicated, wider and uncertain "politics of nuclearisation" as such. Such an approach largely elides the difference between the two political courses. Among those who hold this view are fierce critics of the NPT as essentially a charade. Adherence by many non-nuclear weapons states (NNWSs) with obvious nuclear capabilities to the NPT is then to be explained by the fact that they are "threshold states" which lose nothing, indeed whose status gets legitimised, by joining the NPT. More conventional and more normal usage restricts this label to countries that practised nuclear ambiguity and wished to maintain the option such as India, Pakistan and, once upon a time, Brazil and Argentina whose eventual renunciation of the option is significant. Threshold status should also be distinguished from a posture of nuclear opacity of Israel and apartheid South Africa (the African National Congress always opposed such possession when in opposition), where post-apartheid renunciation was indeed a meaningful step.

Broadly speaking there have been three general lines of argument for explaining why countries, including India, have gone or go nuclear. Even when such arguments are combined, one line is predominant. There are changes in threat perceptions. There is the hypocrisy of nuclear weapons states (NWSs) (of which the NPT is emblematic) that pre-

sumably finally drives some NNWSs to go nuclear.

There are changes in elite self-perceptions (much more open to internal pressures) that prove decisive. Contrary to the expectations of many an anti-nuclearist, hypocrisy alone does not produce any kind of comeuppance for pre-existing NWSs, nor does it drive potential NWSs to become new entrants. The reasons have to be far stronger, although the charge of hypocrisy is always a useful form of justification. The US, France and UK did not go nuclear for fear of the nuclear power of another country but because of post-war elite perceptions. The US was declaring its global dominance and sending a message of its anti-communist determination. UK and France as declining colonial powers wanted to remain at the high table of global powers and for France it was also a way of declaring its relative independence. The USSR and China were more obviously motivated by external threat perceptions, and for China, from both the US and USSR. India's decision was status-driven and not threat-driven - akin to the cases of UK, France and US while Pakistan's was reactive and akin the cases of USSR and China. The evidence against assuming any line of continuity from 1964 or from 1974 to 1998 is very strong. While the Chinese test was a key factor in India ultimately deciding not to join the NPT (although it played a role in preparing earlier drafts) 10 years separate it from Pokhran-I. This took place in a context of considerable internal pressures on the Indira Gandhi Congress govern-

ment. It was called a peaceful nuclear explosion (PNE) and Indira Gandhi herself gave the best explanation for it. "The PNE was done when we were ready. We did it to show ourselves we could do it."<sup>2</sup> In 1977, Prime Minister Morarji Desai of the post-Emergency government publicly announced his displeasure at Pokhran-I and renounced further such experiments. Indira Gandhi as the prime minister of a Congress government in 1980 announced that resumption of tests was conceivable but not becoming an NWS. Consideration of testing between then and 1998 by subsequent administrations had to do with concerns about technologically upgrading the option than with any determination to go openly nuclear.<sup>3</sup>

Nuclear ambiguity or keeping the option open yet not foreclosing or exercising it was the consensual posture accepted by all parties from the left to the right with the BJP seeing it as the lowest common denominator, although it and its forerunner (the Jan Sangh) had demanded the bomb from the 1950s before China, let alone Pakistan, had developed it. That is to say, the BJP's consistent advocacy had everything to do with its Hindutva ideology of "uniting Hindus and militarising Hinduism". In short, the story of why India went nuclear in 1998 has to be situated in the deeper, more encompassing story of India's overall and steady drift to the right from the 1980s onwards in foreign, economic and other domestic policies. A realist, and especially Waltzian approach,

with its "levels of analysis" theorisation for separating the domestic and international is a particularly inadequate lens for explaining why India went nuclear in 1998. In my book *India in a Changing World* written in 1994 and published a year later, I made two predictions (Vanaik 1995). I had said that of the three NPT holdouts - India, Pakistan, Israel - if any one was to go openly nuclear, the first would be India. Israel's and Pakistan's retention of capability or "bombs in the basement" was always much more strongly linked to externally perceived threats and thus the two countries could more easily spell out the conditions under which they would be willing to give up nuclear weapons. The Pakistan government since the mid-1980s has repeatedly made proposals for denuclearising South Asia even after its Chagai tests. Israel has supported a Weapons of Mass Destruction Free Zone (WMDFZ) in west Asia but only in the context of an overall peace settlement - a shameful and unacceptable form of international filibustering. But even if in part or whole this is diplomatic one-upmanship by the two countries it allows them a diplomatic coherence that India has never had (ibid: 83-84). My second prediction was that on the accession of the BJP to power "Finally, India would go openly nuclear. The BJP is the only major party to officially say so and there is no good reason to doubt its determination in this regard."<sup>4</sup> While the India-Pakistan relationship has always oscillated (periods of lesser or greater tension) around the fulcrum of strategic hostility, the

dominant view in India's strategic establishment about the Sino-Indian relationship is that its fulcrum has lain between the two ends of strategic friendship and strategic hostility, closer to but not congruent even with the posture of strategic rivalry; hence the deep uncertainty about how to deal with China.<sup>5</sup> Immediately after the 1998 tests, Prime Minister Vajpayee publicly justified these by referring to the threats posed by Pakistan and China, although, after the collapse of the USSR followed by China-Russia rapprochement, Sino-Indian relations had significantly improved with the signing of two treaties easing border-related tensions. In fact such was the diplomatic faux pas vis-à-vis an angry China, that within a month the Vajpayee government publicly declared that India's bomb was "not country specific" and within a year it was stated that it was "not threat specific" either. What about the Indo-US nuclear deal? Is it an example of wishful thinking and incompetence on the part of the US and thus a spectacular example of India outmanoeuvring the US? On the contrary, in spite of the US' overall global political decline, the world remains a "hub-and-spoke" arrangement with the US at the hub. The initiative for the deal came from the Bush administration and took India by surprise. Washington wanted to accelerate the process of strategic partnership initiated by the Clinton administration once it had reconciled to a nuclear India itself also desirous of forging a strategic alliance with the US and a much closer relationship with Israel.<sup>6</sup> It

is the strategic pay-off represented by the deal that is most important to Washington and it is willing to accept an India that will for a long time to come remain a small nuclear power (SNP). In the US-China-India triangle the future trajectory of the Sino-Indian relationship will be essentially determined by the US-China relationship, which itself will be decisively determined by US behaviour with China as the reactive power.

India, post-1998 continued to oppose the BMD but abandoned objections after the US abrogated the Anti-Ballistic Missile (ABM) treaty only asking now to be contractually and politically involved in the process of preparing and deploying the BMD-TMDs (Theatre Missile Defence) shield. New Delhi has endorsed, though not yet joined the US-led and illegal Proliferation Security Initiative (PSI). It is also now a willing junior partner of the US in the Indian Ocean and has a level of military cooperation (exercises, training and officer-exchange programmes) with the US that goes well beyond what it ever had with the USSR. The US sees India, Japan and Australia as the key nodes in the construction of an "Asian NATO" (North Atlantic Treaty Organisation) with other south-east Asian countries being invited to provide supplementary support.<sup>7</sup> As recently as 23 October, 2008 India and Japan inked a declaration for a "Strategic and Global Partnership". India is only the third country - after the US and Australia - with which Japan has signed such a document.

As for Iran, even the pro-US

lobby in India would have preferred to pursue parallel paths of sustaining and strengthening relations with both since New Delhi has had a longstanding and important friendship with Tehran reaching back to the time of both the Shah and Ayatollah Khomeini. But the US forced India to choose and it buckled under the pressure as the Indian vote at the governing body of the International Atomic Energy Agency (IAEA) showed, enabling a transfer of the Iran dossier to the UN security council (UNSC) on the flimsiest and most unjustified grounds so that the possibility of punishment via sanctions could now be exercised. The role of El Baradei, who has been unjustly eulogised in far too many circles, needs to be properly understood. The fact that El Baradei has to maintain some credibility for the watchdog role of the IAEA means he has to distinguish himself from Washington. But at crucial points - allowing the Iran dossier to go to the UNSC, endorsing the Indo-US Deal, helping the US (which bullied "recalcitrants") to swing over the Nuclear Suppliers Group (NSG) - he has fallen in line. The US' maximalist desire is for India to give it significant support in its efforts to isolate and weaken Iran. Its minimalist aim is that India should not in any serious way obstruct these efforts, in effect its political neutralisation vis-à-vis Iran. India is operating at a position slightly above the minimalist US aim.

### **Evaluating the NPT**

It is easy enough for all to agree on the discriminatory

nature of the NPT, the perfidious behaviour of the NWS signatories in failing to live up to their end of the bargain embodied in Articles I, IV and VI as well on the inherent contradiction of the treaty in simultaneously promising to help NNWSs to develop the where-withal for a bomb through promotion of a civilian dual-use programme as an inducement to formally abjure a military nuclear programme.

Thereafter differences in evaluation emerge. Some judge the NPT to be a limited success for two reasons. It has lasted with no breakouts barring North Korea (which may well prove temporary) and has prevented horizontal proliferation. But it is only by insisting that the NPT must not be seen as a "stand alone" measure that one can give it a "credit by association" as it were. There have been limited successes in the field of nuclear arms restraint (the ABM Treaty), reduction (the Intermediate Nuclear Forces Treaty of 1987 which did eliminate for the first time a whole class of arms), formalised abstinence (nuclear weapon free zones - NWFZs). So future advances, like getting the CTBT into force or eventual success in negotiating a Fissile Materials Cut-off Treaty (FMCT), would, presumably, lend new credence to the NPT. It would be wiser to subscribe to a much more negative evaluation. Except for the commitment to drawing up a CTBT that was the price to be paid by NWSs to get a permanent extension of the NPT in 1995 (a measure that further reduced what little leverage NNWS sig-

natories had) the NPT has been a "stand alone" agreement.

Management of nuclear arms racing allowing qualitative improvements in arsenals, alongside occasional quantitative reductions and restraint measures such as NWFZs have all taken place independent of the NPT. So why has such an iniquitous treaty survived and why have so many countries adhered to it including those with bad relations with the US? Could this be because of the NPT's dual-use character as well as its escape clause (Article X) that allows a member-country to withdraw if the "supreme national interest" demands this? But this is a standard clause in virtually all interstate/international treaties. On the other side, why has the US in the post-cold war era sought to undermine the NPT and more generally the non-proliferation regime so suitable for it, for example, by rewarding India? The puzzle is more apparent than real. The US aims to extend its global (including nuclear) dominance which leads it to both use the NPT as cover and to defy it whenever circumstances demand this. Coming into force in 1970 by its first five-year review conference in 1975, the NPT had 91 state parties. By 1980 this rose to 110, to 128 by 1985, to 138 by 1990, to 178 by 1995, to 190 by 2003. But was this post-cold war expansion predominantly a manipulated one even for the stronger potentially NWSs? Was it created by prodding and bribery of all sorts by the P-2? But can one seriously claim that Brazil, Cuba and some others like Argentina and South Africa

(remember that the ANC always opposed nuclear weapons) fell prey to this kind of manipulation?

There is a more plausible general form of explanation for such membership by potential NWSs that took place at specific times in specific historico-political contexts. For some like Egypt, Switzerland and Turkey there was a significant time gap between signing and ratification. For others the decision to sign and ratify came later. Why with the exception of North Korea has there been no withdrawal and why have so few members (Iraq and Libya) sought to secretly build an arsenal? As for Iran, given its disavowals and the willingness of Iran to cooperate with the IAEA there is more reason to believe that the dominant elite view has been of keeping the option open with a current willingness to even foreclose it if given appropriate inducements. The general point to be made is not that the NPT itself has been such a barrier to proliferation (vertical and horizontal) and therefore it has endured but that potential NWSs for one reason or the other decided at different points of time to finally renounce nuclear weapons programmes and only then signed/ ratified the NPT, and barring a very few, have found no reason to re-evaluate that decision. In some cases this can be seen as confirmation of the assessment by fiercely independent and often beleaguered countries of the "strategic uselessness" rather than the presumed "strategic usefulness" of nuclear weapons.<sup>8</sup> The NPT has been the expression of a prior resolve to renounce. It should not be seen as

either a bulwark against horizontal proliferation or as some kind of trap to which potential NWSs have been lured or bullied into. The NPT should not be assigned any virtue nor should its iniquity be exaggerated. It is best treated as irrelevant. It cannot be reformed and there is no point in demanding its abandonment. Serious efforts at disarmament will need to ignore and bypass it. Harsher judgment of the NPT sometimes segues into seeing it as an unwarranted obstacle to even a selective spread of nuclear weapons to countries outside the existing nuclear club, for example to Iran or North Korea, which could then be countervailing forces to the US's imperial project. This would be a good thing but for the NPT. We return therefore to the long debated counterfactual - the efficacy or otherwise of nuclear deterrence.

### ***Nuclear Deterrence and the World Order***

Can nuclear weapons deter? The answer is yes. But deterrence is not the mere registration of this property. It is a rationalisation, a theorisation that constitutes a much bolder and considerably less plausible claim that this property is so strong and so lasting that a country can rely on it for its enduring security. To believe in nuclear deterrence is to believe that terrible fear will always ensure that fallible human beings (state leaders and managers) will behave as you want them to though they and you operate in circumstances and conditions (sometimes of great stress) that neither they or you can ever fully

control. Security, of course, is a nebulous term which even when it is understood conventionally and narrowly involves an inescapable psychological element. The proportion of one-time believers, including top echelon officials of

civilian and military personnel in NWSs, who have defected from belief in the efficacy of nuclear weapons to the ranks of critics and sceptics is several times greater than defectors in the opposite direction. Illustrative though this is, it cannot of course be a serious intellectual riposte to deterrence defenders. It is Kenneth Waltz who can claim to have provided the strongest such foundation through his cautious conditional "The Spread of Nuclear Weapons: More May be Better".

Waltz's argument for proliferation cannot be separated from his overarching and foundational international relations (IR) theory of Neorealism or Structural Realism. Severe weaknesses in his broader theory should alert us to being more critical in assessing his specifically nuclear arguments. Photorealism for all its parsimonious elegance and internal consistency, logically speaking, remains a deeply flawed theory of limited explanatory power, of even more limited scope and given its positivism quite lacking any critical self-reflexivity. Some have taken note of his "Realist abstraction of the differing social character of states" but the problem goes deeper. His whole approach is ahistorical and asocial and as an IR theory has long passed its peak of influence. From the 1980s onwards it has

been assaulted from certain strands of feminist IR theory, from certain political economy approaches to IR, from Critical

Theory, and most powerfully from the Neo-Marxism in IR of Justin Rosenberg and Benno Teschke (Rosenberg 1994; Teschke 2003).

While the "problematic of the International" like the "problematic of the economic" is always transhistorical, its proper understanding must involve historicised and socialised concepts and theories like those of Marx. Instead of Waltz's face-saving artifice of different "levels of analysis" he should have realised that interrogating the concept of capitalism, which bridges the domestic and international, has always been the best way of understanding modern geopolitics. It is not in the least surprising that his theory is inspired by borrowings from the utterly abstract, and socially and historically speaking, barren conceptual field of neo-classical economics. Similarly, his thinking on the specifically nuclear front is abstract, a-historical and asocial. Before examining Waltz's particular failings in this regard, let us remind ourselves that all strategic nuclear thinking is inescapably speculative and must therefore be disciplined by reference to (a) empirical controls, and (b) the balance of plausibility in argument. Take the "long peace in Europe" issue attributed to the cold war militarised face-off. There are three distinct claims that are made here. Nuclear weapons were necessary and sufficient to prevent nuclear and conventional war between the

east and the west. Nuclear weapons were necessary but not sufficient to preventing such wars. Nuclear weapons prevented intra-European wars as well. The opposing stance towards all three claims is that nuclear weapons were irrelevant to the issue of long peace.

But even a conventional war between the US and USSR would have been third world war and world wars are by their nature multi-causal and a single-factor explanation for their presence (though the trigger can be singular) or absence is untenable. The problem with even the second claim is that it is still a single-factor form of explanation of the absence of a world war, even if there can now be a number of such necessary single-factors whose absence can also do the trick. Of course after the cold war ended intra-European wars erupted despite the existence of a nuclear overhang. Is it not more plausible to explain the long peace by the existence of a cold war glaxis - itself a multi-causal phenomenon - wherein nuclear weapons were an expression and promoter of cold war tensions but not a decisive cause of this glaxis? If one is to respect the logic of Waltz's argumentative structure, then deterrence works and is stable only if confronting each of the NWSs has a credible second strike capacity. A new entrant would have to be allowed time to develop such a capacity against opponents, whether near or distant. Since Waltz operates through asocial and ahistorical categories he must provide an essentially "abstract rationalist" answer (backed by weak empirical

illustrations) as to why a new entrant will be given such time and freedom from a pre-emptive or preventive strike aimed at its fledgling nuclear weapons system. Waltz would have us believe that a preventive strike would only harden the resolve of the targeted country to make successive future efforts to make the bomb until it was ultimately successful. Once a few bombs are developed deterrence of a pre-emptive strike will succeed because even the absence of the capability of, say, a west Asian country to make intercontinental missiles that can reach the opponent will not be a problem. Just the fear that a few rudimentary bombs can quite belatedly be secretly moved by plane, ship or land to a distant enemy is enough of a deterrent. So a very small nuclear arsenal can serve as a credible second strike capability and this can be developed in a very short time (Sagan and Waltz 1995: 19).

This argument is important to note given Israel's history from its bombing of the Osirak reactor in Iraq in 1981 to its 2007 bombing of IAEA safeguarded facilities in Syria. There is higher plausibility in the belief that if push comes to shove neither Israel nor the US will tolerate even a rudimentary Iranian nuclear weapons system and it is now very much harder for a highly monitored state to achieve this secretly. As for the notion that a second strike equilibrium can be reached quickly and then remain stable, all historical evidence indicates that this is always an upwardly moving "equilibrium" related to the nuclear ambitions/preparations of perceived opponents.

This brings us to the issue of arms races, conventional and nuclear.

Yet another Waltz claim invalidated by reality is that new and small nuclear powers are more likely to reduce conventional arms spending and not engage in arms racing once they acquire nuclear weapons. This has not been the case anywhere among paired rivals including India and Pakistan precisely because nuclear weapons cannot do what conventional arms can do (ibid: 29).

But the greater embarrassment for Waltz is that no sensible notion of deterrence can explain the ridiculous overkill capacities and the extraordinary range and levels of tactical weaponry developed by the US and Russia. Waltz can only bemoan that rather than pursuing "deterrence by punishment" the two great powers pursued (and in due course perhaps other NWSs might pursue) "deterrence by denial". The point here is that Waltz's overarching Neorealist theory focused as it is on the primary goal of "survival" and the value of nuclear deterrence in relation to this, has no room for the reality that whether before or after acquiring nuclear weapons, states aim to use them for purposes beyond mere existential survival and for general foreign policy support. This drives them to build a "ladder of escalation" that, in turn, promotes a momentum of continuous arms racing. The "what if" question has to be addressed. What if, since there is never a guarantee against it, that nuclear weapons are somewhere, sometime used between nuclear rivals? Then the existence of a range of

different nuclear arms provides tactical flexibility for trying to control this "ladder of escalation".

Waltz's own view is that should nuclear war break out, it will very quickly come to a halt - a comforting reflection designed to shore up his view of "more may be safe enough" but hardly an impressive line of argument. In fact, Waltz in no way seriously interrogates what can be called the "escalation dynamic" and can therefore be more complacent about nuclear weapons not being used. While deliberate use of nuclear weapons is not that credible, one can credibly create a situation - the Cuban crisis - where tensions can escalate into a nuclear exchange. Any number of nuclear strategists from Henry Kissinger to Thomas Schelling (but not Waltz) have developed different models of "calculated risk taking" recognising that different levels of nuclear brinkmanship is very much a part of the larger nuclear "game" that in reality is played once one moves away from the simplifying assumptions of Waltz. Between Pokhran-I and Pokhran-II there was no war between India and Pakistan. In 1999 believing it had a "nuclear shield", Pakistan launched the Kargil war and both sides readied their nuclear arsenals for use. Shortly after the terrorist attack on the Indian Parliament in December 2001, India and then Pakistan mobilised over a million troops in all on both sides of the border for some 10 months till tensions were defused with the help of the US. This was the largest and longest such mobilisation anywhere in

peace- time since the end of Second World War. Both sides once again made nuclear preparations.

Subsequently in 2005, lieutenant general Khalid Kidwai, the head of the Strategic Planning Division of Pakistan's National Command Authority and one of the two "fingers" (the other is

current military chief, lieutenant general Ashfaq Kayani) spelt out the country's nuclear red-lines, the crossing of which by India would result in the use of nuclear weapons - severe military defeat by India, serious territorial advances towards any of Pakistan's major cities, economic strangulation through a blockade, political destabilisation.

After the November 2008 terrorist attack on Mumbai, the then RSS supremo, K S Sudarshan in an interview by a freelance journalist, declared that a war with Pakistan would turn into a nuclear one, but that it was necessary to defeat the demons and there was no other way. And let me say with confidence that after this destruction, a new world will emerge which will be very good, free from evil and terrorism.<sup>9</sup> Of course, Kidwai and Sudarshan are in large part displaying a mixture of bravado and bluster. But both the first is a vital decision-maker and the latter also whenever the BJP is in power. Such attitudes and beliefs are disturbing. The lesson that needs to be drawn is that in a context of enduring hostility, an escalation dynamic can throw things out of control. Minor incidents can trigger a chain of events leading to an

outcome - nuclear exchange - that neither side would have ever wanted since it would be completely disproportionate to the purposes initially sought by both sides. And this is a key point of weakness in deterrence thinking.<sup>10</sup> There is good reason to worry about India's and Pakistan's nuclearisation and about further horizontal proliferation.

### **Contemporary Dangers: the Way Forward?**

How then do we move towards global and regional disarmament? The two routes are obviously connected but not in a manner whereby movement along the latter is made conditional on forward movement along the former where the US has always been the biggest obstacle, the pace-setter in creating and deepening the global nuclear mess. It has always been the case that civil society pressure from within the US against Washington's global role, even as it is connected to civilian and governmental pressures from outside, is the single most important terrain of confrontation. Neither the rise nor decline of the great independent (not controlled by communist governments) anti-nuclear peace movements in the west (and Japan) of the late 1950s/ early 1960s and then in the mid-1970s/early 1980s are to be explained by reference to the NPT. Both the inspiration for, and decline of such movements have different roots. The rise of such movements was founded on the growing "felt danger" among a disproportionately middle class

base. This has been the shared mass sentiment, the psychological glue that kept it growing. But no movement based on constant fear can sustain itself beyond a limited time horizon. Such a foundation is too negative a sentiment and will also be eroded by the passage of time itself. As for the poorer parts of the world, other more basic and daily "felt needs" of poverty, unemployment, inequalities of all kinds, have always had greater priority. This includes today's India and Pakistan where in any case the dominant attitude among the middle class is supportive of the acquisition of nuclear weapons. So what now? In the post-cold war era, the danger of a global holocaust has greatly receded even as a "limited" and regional assault or exchange has grown. Two parts of Asia cause concern. Why then should ordinary Europeans or Americans feel so worried? Why should one feel surprised about the absence of older-type mass movements in these parts of the world? Fears about future confrontation with Russia and China through the US effort to build the BMD and related TMD systems could help to regenerate a mass opposition within the US and in Europe to the US' plans of "full spectrum dominance" of which this project is a part. But aside from such hopes the larger question is what should be the strategic line of march particularly in the US of the anti-nuclear peace movement?

This must lie in its participation in a wider, more encompassing anti-war/anti-imperialist movement. For all its unassailable military strength the US can be

(and has been) politically defeated. Over the last century and a half there has emerged (especially after WWII) a growing disjunction between military power and political power/ success that has thrown up strategic and intellectual problems that, Waltz and others in the realist/neorealist school, cannot adequately handle because their understanding of power is so under- and poorly-theorised.<sup>11</sup> The political defeat of US ambitions in west Asia sends the message that the most extreme form of military power - nuclear weapons - is not a source of decisive or even significant political strength. Successes in building an anti-war/anti-imperialist struggle then facilitate the spread of a sentiment of anti-nuclearism. If it is accepted that this must be the key strategic line to adopt, then it follows that it is the deficiencies pertaining to the building of such a mass anti-imperialist movement today that are most important to correct, not so much the deficiencies in building an anti-nuclear mass movement. And in this regard the role and impact of the NPT are of even less, if not nil, consequence. Of other possible scenarios, it is right to make light of the bogey of non-state nuclear terrorism, not just on the grounds of immense technical difficulties but also because it assumes that non-state actors are somehow more irrational when compared to state actors. In fact the scale of international suffering imposed by acts of state terrorism is immeasurably greater not because states have always had the greater means but because their terrorist acts are harnessed to much more

grandiose ends - national security, defeating global radicalism, spreading democracy, protecting civilisation, etc. Indeed, such state acts of terrorism are not only more easily justified but all too often they are not even seen as terrorism. Two of the six ideological banners that the US is using after the demise of the Soviet Union as part of its software for its current imperial project (the hardware requires various regional alliances) are the "global war on terror" and "WMDs [weapons of mass destruction] in the wrong hands".<sup>12</sup> The danger is not the likelihood of non-state nuclear use but of the US using this as a justification for a possible small pre-emptive nuclear strike to convey the message that non-state actors should not even think of making such a strike on US soil, indeed of even considering a "dirty bomb" attack or a conventional assault on a nuclear reactor to which the US response could very likely be nuclear. As it is, after 1991 there has been a great blurring of the firebreak between conventional and nuclear weapons in US war preparations and war doctrines. With North Korea wisely deciding to use its nuclear weapons as a bargaining chip to obtain security commitments from the US rather than relying on them to provide an "existential deterrent strategy", the two other danger areas are west and south Asia.

Given the absence of mass civilian pressure, all that can be suggested by way of positive approaches no matter how uncertain their achievement, would be pursuing the following objectives.

First, build pressure against

the BMD-TMDs and PSI projects. There is some scope for future optimism here given the unease of some significant NNWSs besides China and Russia.

Second, promote the effort to establish an early and unconditional

WMD/FZ in west Asia (no Israeli filibustering) as the best way to deal with nuclear dangers in this region. Iran and all 22 members of the League of Arab States have for decades demanded this and it is still for all its difficulties of realisation, the best political route to take to outflank Israel and the US and put them diplomatically - politically on the defensive. The alternative route of Iranian nuclearisation should not be promoted or endorsed.

Third, while India will certainly not accept a South Asian NWFZ there are ways of putting pressure to this end by pursuit of three measures: (a) demand that the whole of Kashmir on both sides of the existing ceasefire line be made an NWFZ. Interestingly, though this idea was first floated by peace activists in the two countries after 1998, it was taken up in August 2007 by the ruling All Jammu and Kashmir Muslim Conference on the Pakistan side of the current border. Since neither India nor Pakistan has stationed or intends to station nuclear weapons in Kashmir, acceptance of this demand does not entail any practical sacrifice. It is also a way of their deflecting the criticism often voiced in the west and elsewhere of Kashmir being a "nuclear flashpoint".

This would be one way of deflecting all imputations of irre-

sponsibility which do irritate the two governments especially when coming from existing NWSs. Of course acceptance by the two governments would constitute a "thin end of the wedge", a way of legitimising partial regional de-nuclearisation which is all the more reason to pursue this call. (b) The Maoists and other parties in Nepal should be approached at both the governmental and civil society levels to declare in its forthcoming Constitution that it, like Mongolia, will be a single-state NWFZ thereby embarrassing its two nuclear neighbours. (c) Bangladesh is the one neighbour that has publicly called for the establishment of a south Asian NWFZ.<sup>13</sup> As a transitional measure, Bangladesh should explore the idea of a stretching of the Bangkok Treaty to include itself, thereby sending a message that will be uncomfortable to India and Pakistan.

Fourth, work for the signing and ratification of the zero-yield CTBT.

It is an important restraint measure on qualitative advances on the US which is why Russia and China are willing to accept it and why the Bush administration refused to ratify it. Yes, it locks the qualitative lead the US already has over other countries.

But does anyone believe it is better that the US has the freedom to make further qualitative advances in such weaponry? Does anyone seriously believe that the gap would then reduce? And is it a bad thing for India and Pakistan to be denied the opportunity through further tests to reliably produce more advanced types of nuclear weapons? The

new Obama administration may well move towards ratification and Israel has already endorsed the CTBT. India and Pakistan are the main holdouts and although not signatories must also sign and ratify for the treaty to come into force. They are quite likely to do so if the new administration in Washington applies serious pressure. One should also work for the resuscitation of the negotiations towards a Fissile Materials Treaty but the final outcome must incorporate the dismantling of all stockpiles held by the existing NWSs.

These are all worthwhile objectives. But the challenge, of course, is to make them more than just a wish list.

**\* Achin Vanaik is a founder member of the CNDP. Author of several books. Professor in the Delhi University. A co-recipient, with Praful Bidwai, of the International Peace Bureau's Sean McBride International Peace Prize for 2000.**

#### Notes:

- 1 See Chapter 4 in Bidwai and Vanaik (2000).
- 2 See Goldblatt (1985: 114).
- 3 In 1995 during the intense CTBT debate on whether India should join up or not, the Congress government of Narasimha Rao did consider having a test and then signing up to the CTBT but eventually decided against it before the US discovered the preparations and put pressure on the government. See Bidwai and Vanaik (2000: 69-73).
- 4 See Vanaik (1995: 12-13). As

far as I am aware no one outside the Sangh parivar before then, had publicly predicted this.

- 5 See Bidwai and Vanaik (2000: 52-53, 69-74).
- 6 In the last few years it seems Israel has overtaken Russia as the largest supplier of military hardware to India just as India is now Israel's number one arms buyer. In the longer run Israel (and the US) may well enduringly replace Russia as India's number one supplier.
- 7 See The Indo-US Military Relationship: Expectations and Perceptions by the US Department of Defence, 2002. This a report based on interviews with 23 American military officers, 15 government officials and several members of the Indian National Security Council and outside experts advising the Indian government. Also see Tellis (2005) and Blank (2005).
- 8 Nuclear weapons possess a "threat power" so extreme that its fungibility or "exchange power" is negligible. No wonder then that it is so difficult to point to serious successes through nuclear blackmail attempts at which the US is most guilty. No wonder also that even in the most extreme conditions of actual war between NWSs and NNWSs they have been of no use, e.g., the US in Vietnam, the USSR in Afghanistan and that American presidents (Reagan and Nixon) have expressed

their frustration over their political-diplomatic ineffectiveness when dealing with enemy states. Vietnam can certainly develop a programme to build nuclear weapons if it wants to but despite a 1,000 year history of enmity with China, it has decided to renounce this option by joining the Bangkok Treaty, i.e., the south-east Asian NWFZ. There is as much if not more plausibility in the argument that not having nuclear weapons affords greater nuclear security vis-à-vis an NWS than having them.

- 9 <http://communalism.blogspot.com/2008/12/text-of-recent-interview-rss-boss-it.html>.
- 10 An excellent analysis of this whole issue is given by Jean Dreze in "Militarism, Development and Democracy" in Ramana and Reddy (2003: 307-12).
- 11 The most serious intellectual contributions to understanding "power" have never come from conventional IR theory which places such central premium on the notion but from the disciplines of political science and historical sociology.
- 12 The other four are "humanitarian intervention", regime change in the name of democracy, "failed states", "war on drugs". Their manipulation is made more plausible precisely because they are not simply concoctions but do refer to genuine problems. For an in depth analysis of

the six ideological banners that have replaced the old cold war banner of "saving the Free world from the Communist threat" see Vanaik (2007).

- 13 Statement by Mr Masud Bin Momen, Director General (UN), Ministry of Foreign Affairs, Bangladesh at the First Committee of the 62nd UNGA, 17 October 2007.

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**[Source: *Economic & Political Weekly*, April 18 2009.]**



## II. Imagine There's No Bomb

**Malcolm Fraser, Gustav Nossal, Barry Jones, Peter Gration,  
John Sanderson and Tilman Ruff\***

THERE has never been a better time to achieve total nuclear disarmament; this is necessary, urgent and feasible. We are at the crossroads of a nuclear crisis. On the one hand, we are at an alarming tipping point on proliferation of nuclear weapons, with a growing risk of nuclear terrorism and use of still massively bloated arsenals of the worst weapons of terror. On the other, we have perhaps the best opportunity to abolish nuclear weapons.

For the first time, a US president has been elected with a commitment to nuclear weapons abolition, and President Barack

Obama has outlined a substantive program to deliver on this, and shown early evidence that he is serious. He needs all the support and encouragement in the world. We do not know how long this opportunity will last. Unlike the last one, at the end of the Cold War, it must not be squandered. An increasingly resource- and climate-stressed world is an ever more dangerous place for nuclear weapons. We must not fail.

Like preventing rampant climate change, abolishing nuclear weapons is a paramount challenge for people and leaders the world over - a pre-condition for

survival, sustainability and health for our planet and future generations. Both in the scale of the indiscriminate devastation they cause, and in their uniquely persistent, spreading, genetically damaging radioactive fallout, nuclear weapons are unlike any other weapons. They cannot be used for any legitimate military purpose. Any use, or threat of use, violates international humanitarian law. The notion that nuclear weapons can ensure anyone's security is fundamentally flawed. Nuclear weapons most threaten those nations that possess them, or like Australia, those that claim protection from

them, because they become the preferred targets for others' nuclear weapons. Accepting that nuclear weapons can have a legitimate place, even if solely for "deterrence", means being willing to accept the incineration of tens of millions of fellow humans and radioactive devastation of large areas, and is basically immoral.

As noted by the Weapons of Mass Destruction Commission headed by Dr Hans Blix: "So long as any state has nuclear weapons, others will want them. So long as any such weapons remain, there is a risk that they will one day be used, by design or accident. And any such use would be catastrophic." The only sustainable approach is one standard - zero nuclear weapons - for all.

Recent scientific evidence from state-of-the-art climate models puts the case for urgent nuclear weapons abolition beyond dispute. Even a limited regional nuclear war involving 100 Hiroshima-sized bombs - just 0.03 per cent of the explosive power of the world's current nuclear arsenal - would not only kill tens of millions from blast, fires and radiation, but would cause severe climatic consequences persisting for a decade or more. Cooling and darkening, with killing frosts and shortened growing seasons, rainfall decline, monsoon failure, and substantial increases in ultraviolet radiation, would combine to slash global food production. Globally, 1 billion people could starve. More would succumb from the disease epidemics and social and economic

mayhem that would inevitably follow. Such a war could occur with the arsenals of India and Pakistan, or Israel. Preventing any use of nuclear weapons and urgently getting to zero are imperative for the security of every inhabitant of our planet.

The most effective, expeditious and practical way to achieve and sustain the abolition of nuclear weapons is to negotiate a comprehensive, irreversible, binding, verifiable treaty - a Nuclear Weapons Convention (NWC) - bringing together all the necessary aspects of nuclear disarmament and non-proliferation. Such a treaty approach has been the basis for all successes to date in eliminating whole classes of weapons, from dum-dum bullets to chemical and biological weapons, landmines and, most recently, cluster munitions.

Negotiations should begin without delay, and progress in good faith and without interruption until a successful conclusion is reached. It will be a long and complex process, and the sooner it can begin the better. We agree with UN Secretary-General Ban Ki-moon that the model NWC developed by an international collaboration of lawyers, physicians and scientists is "a good point of departure" for achieving total nuclear disarmament.

Incremental steps can support a comprehensive treaty approach. They can achieve important ends, demonstrate good faith and generate political momentum. Important disarmament next steps have been repeatedly identified and are widely agreed. They remain valid

but unfulfilled over the many years that disarmament has been stalled. The 13 practical steps agreed at the nuclear Non-Proliferation Treaty Review conference in 2000 should be upheld and implemented. They include all nuclear weapons states committing to the total elimination of their nuclear arsenals; entry into force of the Comprehensive Test Ban Treaty; negotiations on a treaty to end production of fissile material; taking weapons off extremely hazardous high alert "launch on warning" status; and negotiating deep weapons reductions. But at the same time a comprehensive road map is needed - a vision of what the final jigsaw puzzle looks like, and a path to get there. Not only to fit the pieces together and fill the gaps, but to make unequivocal that abolition is the goal. Without the intellectual, moral and political weight of abolition as the credible and clear goal of the nuclear weapon states, and real movement on disarmament, the NPT is at risk of unravelling after next year's five-yearly review conference of the treaty, and a cascade of actual and incipient nuclear weapons proliferation can be expected to follow.

Achieving a world free of nuclear weapons will require not only existing arsenals to be progressively taken off alert, dismantled and destroyed, but will require production of the fissile materials from which nuclear weapons can be built - separated plutonium and highly enriched uranium - to cease, and existing stocks to be eliminated or placed under secure international control.

The International Commission on Nuclear Non-proliferation and Disarmament announced by Prime Minister Kevin Rudd in Kyoto last June and led with Japan is a welcome initiative with real potential. It could most usefully direct its efforts to building political momentum and coalitions to get disarmament moving, and promote a comprehensive framework for nuclear weapons abolition.

Australia should prepare for a world free of nuclear weapons by "walking the talk". We should reduce the role of nuclear weapons in our own security policies, as we call on nuclear weapon states to do. To ensure that we are part of the solution and not the problem also means

that the international safeguards on which we depend to ensure that our uranium does not now or in the future contribute to proliferation, need substantial strengthening and universal application. Our reliance on the "extended nuclear deterrence" provided by the US should be reviewed so that Australian facilities and personnel could not contribute to possible use of nuclear weapons, and we anticipate and promote by our actions a world freed from nuclear weapons. Canada championed the treaty banning landmines, or Ottawa Treaty; Norway led the way on the cluster munitions with the Oslo Convention. Why should the Nuclear Weapons Convention the world needs and deserves not be championed and

led by Australia and become known as the Canberra (or Sydney or Melbourne or Brisbane) Convention?

*\* Malcolm Fraser (former prime minister), Sir Gustav Nossal (research scientist), Dr Barry Jones (former Labor government minister), General Peter Gration (former Defence Force chief), Lieutenant-General John Sanderson (former chief of the army and former governor of Western Australia) and Associate Professor Tilman Ruff (national president of the Medical Association for Prevention of War Australia).*

[Source: <[www.wagingpeace.org/articles/2009/04/08\\_australians\\_nuclear\\_disarmament.php](http://www.wagingpeace.org/articles/2009/04/08_australians_nuclear_disarmament.php)>.]



## C. Reports from NPT PrepCom May 2009

### I. Letter from UN Building, New York

**John Hallam\***

Dear Sukla,

I am writing this article in a dark echoing corridor in the first sub - basement of the United Nations building in New York.

It is full of people, both nongovernmental organisations and diplomats from all over the world. As I write various African diplomats are talking loudly and it's hard to hear oneself think.

The place has that strange, subterranean, bunker-like, echoing quality that one might expect from STRATCOM or Kosvinsky Mountain, though I always find the UN stimulating

and positive.

What on earth am I doing here, and why do I have a blue bit of plastic round my neck with a 'D' this time (which entitles me to use the computers reserved for delegates, from whence I type) instead of the usual lowly 'N', for NGO?

I am attending the Nuclear Non-proliferation Treaty (NPT) Preparatory Committee meeting, or 'PrepCom', leading up to the 2010 review conference of the nuclear non-proliferation treaty, arguably the worlds most important treaty, and an international arms-control/disarma-

ment instrument at arguably again, has much to do with the survival of the human race.

NPT PrepComs and review conferences are one of a number of exalted UN gatherings in which representatives of governments and nongovernmental organisations from every nation on earth (except India, Pakistan and Israel in this case though India and Pakistan have been invited to send observers), get together to discuss matters that affect the survival of the human race, and the media of the world treats it as if it had never happened. Nonetheless, these meet-

ings, and their success or failure, are of utterly vital importance for the whole planet. From the grimy passageway in which the delegates computers sit you wouldn't know it, but you might guess from the excited buzz of many languages and the self-important striding of delegates from across the world, in dark pinstriped suits or national dresses.

For a number of years I've been pursuing the issue of the operational status of nuclear weapons systems, and have managed to take the issue to the United Nations, so the bowels of the decrepit old UN building in New York has become rather familiar, with the smoke-filled 'Vienna Cafe' outside conference room 4 the familiar rendezvous with everyone from India's chief of delegation to the diplomats of Chile, New Zealand, Nigeria, Sweden and Switzerland since they decided to put up a resolution on operational readiness of nuclear weapons systems in October 2007.

I have attended just two NPT 'PrepComs' and hope to attend the 2010 review conference.

And this time I have had the luck or misfortune or whatever, to be going as an official member of the Australian delegation, along with Prof. Tilman Ruff, chair of ICAN.

This NPT PrepCom was supposed to be different. As the optimism engendered by the Obama administration and the Prague speech was taken on by governments worldwide, it filtered into the rarefied atmosphere even of this NPT

PrepCom, and the opening speeches were full of urgency - and optimism. Surely, now there is a US president that takes nuclear disarmament seriously there will be the possibility of completely eliminating nuclear weapons and of taking the apocalypse - self inflicted, not the doing of any vengeful and lunatic deity - off the global agenda forever.

And sure enough, the most vital thing - the adoption of an agenda for the 2010 review conference - was literally gavelled through by the chairman in record quick time without a murmur.

So far so good.

The next step was the adoption of a series of recommendations from the PrepCom to the review conference.

This is proving much more difficult.

As I write, I have in my briefcase, the first set of recommendations put out by the chair, followed by a second set put out in response to the reactions by various governments including the US and Russia, the NAM bloc, Australia, France, the EU as a whole, Egypt, and a bunch of others in response.

The first set was in my view and that of the NGO community generally, already incomplete and weak though it did for the first time include language committing to a possible nuclear weapons convention.

It also included language committing for the first time since the year 2000 review conferences commitment to the 'total and unequivocal elimination' of nuclear weapons, to

'going to zero' in nuclear weapons.

And it contained good language on operational status of nuclear weapon systems.

The second iteration still contains the good language on op status but just about everything else has been diluted or has disappeared or been on one way or another somehow blunted.

One can see the pressure, applied behind the scenes, by a nuclear weapons establishment that does not intend to go quietly.

As I sit, various groups are, I understand, caucusing.

My own delegation has asked Tilman and I for an evaluation and we've given it. It is disappointing, and could develop, alas! into an opportunity lost.

We can't afford to lose too many of these opportunities. The UN may be all about talk and week-long negotiations on the position of a semicolon. But the position of that semicolon may be life or death for the world.

Let's not blow it, please.

John Hallam

P.S:

A funny thing happened on the way to the HAP reception... or when the wrong party is the right party.

A funny thing took place the other day.

I was invited to the reception of the Hague Appeal for Peace to be held I was informed, on the 10th floor of the Church Centre, opposite the UN.

As I had been struggling for the first few days of the PrepCom with the agonies of

gout and my left toe felt like it had been dipped into either liquid nitrogen or molten lava, I wasn't sure I would be able to make it.

But at the due time, I made it across the road to the Church Centre, and as I entered, so did a couple of diplomats.

I asked them if they were 'going to the HAP reception' and they said yes they were.

They pressed 12th floor in the lift. I said 'surely the HAP reception is 10th' but they said, no, its 12th and I went along with them.

As we exited the lift I recognised the room as being the boardroom of the International Peace Academy, which is the kind of outfit that has various current and former heads of state on its board and would, naturally, have Ban Ki-moon as its patron. I'd debated former ambassador Chris Ford on operating status in that room the previous October.

I was met at the door by Francoise, the man who'd organised the debate. As we entered, TV cameras recorded us and we smiled for them. Francoise beamed.

The room filled up with indescribably exalted bigwigs, none of whom I knew in the slightest, and I languished (sus-

tained by exquisite nibbles and wine) until the Kuwaiti ambassador rescued me with a prolonged conversation about the global economic crisis. Kuwait was doing fine and buying everyone else at bargain-basement prices.

I then had a number of conversations in which the subject of operating status of nuclear weapons came up with various people. Having a resolution in the general Assembly seemed quite normal and even trivial there. I felt I should be stuck to someone's boot.

Then, a funny thing happened. The lights kind of dimmed and someone familiar could be seen shaking hands along a line of people which I found myself in the middle of.

It was Ban Ki-moon.

I shook his hand and had a 30 second introduction and he moved on.

I think that at the time I did not quite register what had just happened.

The party went on and he made a funny speech that left no doubt that it had been him.

I think I had a drink or three and found myself talking to a large and friendly bear of a man who did not let on exactly who he was.

I talked as usual about oper-

ating status and nuke weapons and he listened with intent interest.

Finally he had to tell me that he was Ban Ki-moon's senior political adviser.

Exactly what he next said is kind of classified but was very very positive.

The party had more or less ended and people had mostly left.

I made to leave also and as I left I encountered Francoise.

I said to him something like 'Only at this place can one have a chance conversation that makes complete global incineration significantly less likely.'

Francoise beamed widely and asked me for details which I supplied. He beamed even more.

I left.

As I left the lift stopped at the 120th floor. Some people got on looking like they had been at a function.

I asked if the HAP function had been on the 10th floor. Yes, they said, it had just finished.

Sometimes the wrong party turns out to be the right party.

**\* John Hallam is a leading peace activist from Australia. He has attended the NPT Prepcom as an NGO adviser (member) of the Australian Government delegation.**



## **II. NPT PrepCom concludes with agenda but no recommendations:**

### ***A qualified success\****

***Michael Spies and Ray Acheson***

**B**Y the abysmal standards that have typified the preparatory process-instituted in 1995-leading up to each five year review of the NPT, the third and final Preparatory Committee (PrepCom) meeting before the 2010 Review Conference (RevCon) must certainly be considered a success. The PrepCom was able to agree to an agenda for the RevCon, on its third day, no less, amid a chorus of accolades for what many described as a new, positive atmosphere in multilateral disarmament, stemming entirely from US President Obama's 5 April speech in Prague.

However, it did not surprise many delegates-most of whom are veterans of the so-called decade of deadlock that had accompanied the Bush administration's allergy to multilateralism-that the PrepCom would become snagged once it attempted to work through matters of substance.

The PrepCom's failure to adopt substantive recommendations for the RevCon, a feat no previous PrepCom had ever accomplished, may have temporarily tainted the atmosphere, but was not unforeseen. During his opening remarks to the PrepCom, its Chair, Ambassador Chidyausiku of Zimbabwe, cautioned that despite recent signs of progress, in many areas the positions of states had actually grown

further apart rather than closer.

With this note of caution, on Monday, 11 May, the Chair circulated a clever and concise first draft of recommendations, intended to capture specific proposals that identify concrete practical actions on implementing the Treaty, stand a reasonable chance of gaining consensus, and build upon earlier decision. Its strongest provisions dealt with moving the disarmament agenda forward and even included consideration of a nuclear weapons convention.

It must be noted that the vast majority of states could have accepted the first draft, including many members of NATO, with little or no modifications. Following consultations, and in particular input from the nuclear weapon states, on Wednesday, 13 May, the Chair put forward a revised set of recommendations that significantly weakened the sections on disarmament, civil society participation, and education, but bolstered those on implementing the 1995 Middle East resolution and on non-proliferation.

For some, the second draft proved to be a bridge too far. As the conference moved into its final hours, it devolved into a tense blame game that pitted western delegations against the Non-Aligned Movement and some of its more outspoken members, most notably Cuba,

Egypt, and Iran. On Thursday, 14 May, the Chair advised states let the recommendations go, as to not to ruin the spirit of cooperation. Despite the Chair's judgment that the differences in position were too vast, a large number of delegations urged the Chair to continue the process of seeking consensus.

The breakdown of the recommendations process

Despite the positive atmosphere, disarmament rhetoric of the US and UK administrations, and the quick adoption of the agenda, the PrepCom delegates did not find enough common ground - or at least, enough common rhetoric - to agree to a set of non-binding recommendations for next year. Breaking with the recent past, the Chair decided not to forward the recommendations to the RevCon as a working paper.

The Chair had introduced a newly revised draft recommendations on Friday, 15 May. Delegations consulted with their regional groups before resuming an informal meeting of the PrepCom. During this last attempt to reach consensus on the draft recommendations, the Chair determined that the Committee did not have a sufficient amount of time to reach agreement. Later, at a press briefing, he said the "differences were very minor; with time, we could have done it."

The differences, as laid out by delegations during Thursday's plenary discussion on the draft recommendations, did not seem very minor, though the revisions in the third draft were quite minimal. The additional changes brought on board an additional conditioned preambular paragraph, further emphasized its non-binding character and marginally indicative character—a change insisted upon by the UK. Other amendments made minor changes to the sections on universality, disarmament, non-proliferation, regional initiatives, and education.

Despite the lack of time to make additional major changes to the text (delegations would have needed to consult with their capitals had the second draft text been heavily amended), western and non-aligned delegations traded blame for the impasse. Since the first draft was not agreeable to a few western states and the second was not agreeable to a few NAM states, it would be cynical and insincere to place "blame" on any particular group or delegation. Instead, the experience only serves to further illuminate the wide gulfs between states' positions.

Paradoxically on the surface,

this result came as a relief to many delegations. While the vast majority of states parties seemed ready to accept either the first or second drafts, no one was entirely content with either. Rather than becoming stuck with an imperfect text, delegations will have the freedom in 2010 to negotiate and reach agreement with a clean slate on the many fraught issues facing the NPT regime.

*\* Lead editorial from the final edition of **Reaching Critical Will's NPT News in Review**,*



## **D. Nuclear Power**

### **I. National Convention on**

### **The Politics of Nuclear Energy and Resistance**

**On June 4, 5, 6 (Thu, Fri, Sat) 2009**

**At Kanyakumari, Tamil Nadu, India**

#### **CONCEPT NOTE**

**A**LTHOUGH the tentative 'Indian Atomic Energy Commission' was set up in August 1948 in the new and fledgling Department of Scientific Research, it was only on August 3, 1954 the fully-fledged Department of Atomic Energy (DAE) was created under the direct control of the Prime Minister through a Presidential Order. The Atomic Energy Commission (AEC) itself was established in the Department of Atomic Energy by a Government

Resolution of March 1, 1958. Just three months after the DAE was established, Prime Minister Jawaharlal Nehru unequivocally declared in a conference on 'Development of Nuclear Power for Peaceful Purposes': "We want to utilise atomic energy for generating electricity because electricity is most essential for the development of the nation."

It is pertinent to reflect on what the Indian nuclear establishment has accomplished in the past fifty years. In 1998-99 the

country generated about 90,000 MW and almost all of this was thermal and hydropower and the share of nuclear power was an insignificant 1,840 MW -- a ridiculously low 2 per cent of the total energy production. Now it is hardly 3 per cent. The DAE failed to achieve their target of producing 10,000 MW power by the year 2000.

The fact of the matter is most of the 14 units (two at Tarapur in western Maharashtra state, four at Rawatbhatta in western Rajasthan

state, two at Kalpakkam in Tamil Nadu, two at Narora in northern Uttar Pradesh, two at Kakrapar in western Gujarat and two at Kaiga in southern Karnataka) are beset with technical problems. Dr. B. K. Subbarao, a retired naval captain who is familiar with the Indian nuclear department, asserts that "the country's six nuclear power plants with 14 units are operating at low capacities." A simple comparison of nuclear power projects with hydro and thermal power projects would show that nuclear energy is way too expensive and ineffective. If we consider the amount of money, time, energy, human and other resources that have gone into the nuclear institutions and their activities since 1948, we get a classic picture of inefficiency and incompetence.

### **Present Situation**

The DAE envisages a grandiose three-stage nuclear energy program that could contribute to achieving the country's energy security (or some people put it, energy independence). The first stage has seen the construction of a series of Pressurised Heavy Water Reactors (PHWR). As breeder reactors (PFBR) mark the beginning of the second stage, thorium-fuelled reactors and Advanced Heavy Water Reactors (AHWR) will come up under the third stage. Ever since the finalization of the India-US nuclear deal and the subsequent nuclear suppliers group (NSG) clearance, India has embarked upon nuclear agreements and business deals with Russia, United States, France and Kazakhstan. Russia has signed a commercial

deal with India to build four additional nuclear reactors (besides the two reactors that are being built) at Koodankulam in Tamil Nadu. The United States is sure to get a big chunk of India's nuclear trade worth several billion dollars over the next two decades.

Areva of France has signed a pact with India and is engaged in discussions to set up two to six 1,650 MW European Pressurized Reactor (EPR) units at Jaitapur in Maharashtra and to supply lifetime fuel for these reactors through its uranium mines located in Australia, Kazakhstan and Niger. The cost of one EPR is estimated at between \$5.2 and 7.8 billion, but the final costs are subject to negotiation. The India-Kazakhstan agreement involves export of uranium from Kazakhstan for India's civil nuclear program. Britain is also vying for nuclear business with India.

Nuclear business is a lucrative affair all over the world. Even more so in India! So much money has already been wasted on nuclear power projects and the current cash crunch is mainly due to nuclear power being very expensive, inefficient and capital intensive. So the top officials of the Indian nuclear establishment have expressed interest in inviting private investments (which has been set aside for the time-being). To reach their target of generating 20,000 MW power by the year 2020, the nuclear authorities say they need a whopping amount of Rs. 800 billion. So they are contemplating about amending the Indian nuclear laws in order to facilitate private participation in nuclear power generation and

other assorted endeavours. What all this means is that while private companies make money with no responsibilities, the Indian taxpayers and the "ordinary citizens" will bear the cost of dealing with the nuclear waste, decommissioning the plants, environmental damages, public health issues and other dangerous consequences.

A highly populated country like India does have an increasing need for energy. But then that energy has to be economical, sustainable and environment-friendly for the very same reason of over- and dense- population. The country needs to spend less on energy because there are other pressing needs such as food security, water security, housing, health, education, transportation and so forth. India cannot afford the "use and discord" strategy as in nuclear power projects for obvious reasons of limited land availability, future generation's needs and so forth. Its energy projects have to be environmentally-friendly because even a small incident can harm, hurt or kill a huge number of people.

### **Nuclear Weapons**

India's ambitious nuclear program consists of not just nuclear power generation but also nuclear weapons project. Anil Kakodkar, AEC chairman, has proclaimed recently: "The international civil nuclear programme will be pursued without any compromise on domestic autonomy and on the pursuit of usage of nuclear energy for whatever purpose" (emphasis added, *The Hindu*, February 6, 2009). India's nuclear weapons program was started at the Bhabha Atomic Research

Center (BARC) in Trombay. In the mid-1950s India acquired dual-use technologies under the "Atoms for Peace" non-proliferation program. It aimed to encourage the civil use of nuclear technologies in exchange for assurances that they would not be used for military purposes. There was hardly any evidence in the 1950s that India had any interest in a nuclear weapons program. Under the "Atoms for Peace" program, India acquired a Cirus 40 MWt heavy-water-moderated research reactor from Canada and purchased the heavy water required for its operation from the United States. In 1964, India commissioned a reprocessing facility at Trombay and used it to separate out the plutonium produced by the Cirus research reactor. This plutonium was used in India's first nuclear test on May 18, 1974 which was described by the Indian government as a "peaceful nuclear explosion."

Now India is believed to possess 45 to 100 nuclear weapons while Pakistan is said to have some 60 of them. According to a report in Jane's Intelligence Review, India's objective is to have a nuclear arsenal that is "strategically active but operationally dormant", which would allow India to maintain its retaliatory capability "within a matter of hours to weeks, while simultaneously exhibiting restraint." However, the report also maintains that, in the future, India may face increasing institutional pressure to shift its nuclear arsenal to a fully deployed status. Having thrown all the high moral principles such as non-proliferation, disarmament and abolition of

nuclear weapons, India is being duped into a nuclear rivalry with Pakistan and China with possible arms races, militarism, poverty, misery, insecurity and underdevelopment. The nuclear power and bomb programs are going to increase the nuclear expenditure exponentially thereby diverting the scarce resources from the much-needed basic services for the poor. 'Climate Change' Claims

Although nuclear program is bandied about as the best answer for climate change, there is very little truth to that claim. As Professor Amory Lovins, one of the world's most influential energy thinkers, puts it: "If climate change is the problem, nuclear power isn't the solution. It's an expensive, one-size-fits-all technology that diverts money and time from cheaper, safer, more resilient alternatives."

It is indeed grossly misleading to claim that nuclear power does not produce greenhouse gases (GHG). In fact, mining and processing of uranium, building nuclear power plants with an enormous amount of cement and steel and long construction processes, decommissioning the power plants, handling the radioactive waste, caring for all the cancer patients, dealing with all other public health situations and all these procedures cause considerable climate-changing pollution.

As indicated earlier, nuclear power does not produce much of India's energy mix. Even if we accept the DAE's dreamy figures of electricity generation, we must understand that electricity is a small portion of our total energy use. Most importantly, nuclear

power plants emit a lot of harmful radiation and radiation-producing wastes and sites that cause much damage to humans, natural resources, and the overall environment. It is not at all prudent to opt for radiation-pollution and DNA-change to answer the threats of GHG-pollution and climate-change.

### **New (Clear) Kid on the Block**

The nuclear establishment that has been lying low with insignificant power generation and secretive weapons production has become a major political player ever since the BJP-led government's nuclear testing and weaponization in May 1998. With the actual and potential nuclear threats that India, Pakistan and the whole of South Asia have faced over the years, the importance of the nuclear estate in India has gone even further up. This new kid in the 'political power' block with a clear self-serving agenda is slowly gaining more and more political, military, economic and commercial strength and many more patrons and friends.

The Indian state along with its nuclear hawks, almost all the political party leaders, the nuclear estate comprising scientists, technicians and bureaucrats, and the nuclear industry that consists of Indian corporations, MNCs, and other business houses form a kind of a profiteering nuclear conglomerate. Together they define national security, India's science policy, the new energy paradigm, and the very future vision of the country. Without

any transparency, accountability, parliamentary oversight or popular scrutiny and with unlimited funding, 'sacred cow' status, innocuous 'advanced science and technology' label, and the 'national security' jingoism, the DAE is an undemocratic and anti-people department.

What makes it possible for the DAE to keep several 'incidents' and 'accidents' under wraps and to persist with the authoritarian tendencies and practices is the Atomic Energy Act 1962 that clearly undermines India's democratic heritage too. The Atomic Energy Act 1962 has indeed become a potent weapon for the DAE officials to threaten and silence the opponents and critics and shun any public dissension to their plans and projects. Section 3 of the Atomic Energy Act 1962 enables the Central Government "to declare as 'restricted information' any information not so far published or otherwise made public" and "to declare as 'prohibited area' any area or premises" where "production, treatment, use, application or disposal of atomic energy or of any prescribed substance" is carried out. Leaping much further, section 18 (restriction on disclosure of information) restrains nuclear information sharing even more stringently.

To make matters worse, the Supreme Court ruled in January 2004 that the Central Government had every right to maintain secrecy about nuclear installations and deny public information about these in the interest of national security, which was paramount. Although our Constitution guarantees us

the right to information vide Article 19(1)(A), these are, according to the court, subject to reasonable restrictions in the interest of national security. Rejecting a petition by the People's Union of Civil Liberties (PUCI) and the Bombay Sarvodaya Mandal for making public a government report on safety of nuclear installations, submitted by the Atomic Energy Regulatory Board (AERB) to the Delhi government in November 1995, the Court ruled that the petitioners were "not entitled" to get the document declared as "secret" by the Union Government under Section 18 of the Atomic Energy Act 1962.

It is important to note that the petitioners did not ask for any information about India's nuclear arsenal or its storage site or anything like that but expressed a genuine concern that there was not enough safety precautions in nuclear power stations in the country and any accident could have a disastrous affect on human beings, animals, environment and ecology. The petitioners had moved the Supreme Court after the Bombay High Court had rejected their petition in January 1997. The petitioners had also raised doubt about the safety aspect with regard to disposal of nuclear waste.

The Atomic Energy Act 1962 allows arbitrary suppression of all information --patently unconstitutional, according to V.R. Krishna Iyer, a widely respected legal luminary in India. The DAE is easily one of our most secretive departments and has much to hide: uranium mining hazards in Jadugoda, excessive irradiation of

power-plant workers, waste mismanagement, and numbers regarding explosive yields. When a former Captain B.K. Subba Rao questioned the DAE's nuclear sub (Advanced Technology Vessel) project, a spectacular Rs. 2,000 crore failure, he was charged in 1988 with spying with the ludicrous evidence of his IIT-Bombay Ph.D. thesis for "espionage" and jailed for 20 months--until fully exonerated by three different courts.

There is an added danger now that the DAE is looking into ways of making amendments in the Atomic Energy Act 1962 in order to have private participation in the future nuclear power programs. The latest word is that amendment to the act is under consideration at various levels. Once the amendment is passed in the Parliament, rich power barons could invest in the nuclear power program and reap high dividends while the Indian state would subsidize nuclear research, enrichment of fuels, disposal of nuclear wastes, decommissioning of plants etc. with public funds. Thus the Atomic Energy Act 1962 would facilitate the fusion of secretive state, careerist DAE scientists and greedy capitalists for private profit and the fission of Indian citizens' safety, health and futures for several generations to come.

### ***Inherent Dangers and Pitfalls***

According to Anil Kakodkar, AEC chairman, India should set up 40,000 MW reactors by 2020 to meet its energy requirements and become energy-independent by 2050 (The Hindu, February 6, 2009). But this grandiose plan

does not say how much money will be needed, who will foot the bill, and if a cost-benefit analysis will prove nuclear power worthwhile and indeed profitable for a "developing country" like India.

In the name of nuclear power generation, the country is being re-colonized with Russians, French and Americans operating nuclear power plants all over the country and poking their profit-seeking noses into other areas of our national life. These nuclear "East India Companies" cunningly incorporate local capitalists to safeguard their position. For instance, the Areva chief has said that talks are on with several Indian companies to manufacture parts for nuclear reactors for the local market and overseas (Business Line, February 5, 2009). These nuclear business deals are also intricately linked to nuclear weapons program, conventional weapons procurements, military deals and other devious things.

Although power is the public face of the Indian nukedom, bomb is its real face. This strong linkage between power and bomb has to be acknowledged. The Indian nuclear weapons program that often legitimizes itself by pointing out the Chinese weapons and military threat has given rise to knee-jerk reaction in Pakistan. These two countries have embarked upon a large scale nuclear power generation in Pakistan. Thus massive production of nuclear energy for weaponization poses a major challenge in South Asia today. This is bound to further create tension and conflicts leading to the acceleration of the arms race and militarization posing a severe

threat to peace and security in the region.

Uranium mining, thorium extraction and other such operations along with their socioeconomic, environmental and health impact on marginalized communities such as the tribals, dalits and fisherfolk in places like Jadugoda, Meghalaya, Hyderabad, and the coastal villages of Orissa, Andhra Pradesh, Tamil Nadu and Kerala is another grave concern. The nuclearisation of India also exhibits a blatant disregard to human rights of millions of people and the overall environment. The land rights, water rights, right to life and livelihood are all seriously impeded by the nuclear estate and its institutions and agents.

### ***Call for a National Convention***

Seeing the nuclear program just as a matter of science and technology, or economics, or national security or development is an ill-informed approach. When all is said and done, the nuclear program has environmental, health, safety, demographic, cultural and political sides to it. After all, nuclearism is a political ideology. It is slowly but surely seeping into the democratic fabric of the country. As a money-guzzling, secretive department with strategic calculations and environmental dangers, the nuclear estate abhors transparency, accountability and popular participation. As a totalitarian scheme with no room for dissent or debate, the nuclear estate shuns popular debate or democratic decision-making processes and sees the Indian

citizens not as "energetic masters" of a democracy but as "energy slaves" of a brave new nuclear world.

Dr. Manmohan Singh, the Indian Prime Minister who single-mindedly spearheaded the India-US nuclear deal, had put it succinctly in his convocation address in the Indian School of Mines on June 12, 2000 (published in University News 38 (24), p.11): "Nuclear power programme which was initiated in the country more than 40 years back has not progressed as envisaged...the target of 20,000 MW fixed in 1970 has badly slipped... In many countries nuclear power has been down graded due to safety hazards...There is an urgent need to re-evaluate the role of nuclear power taking into account both relative costs as well as safety hazards. It goes without saying that we need strong and autonomous regulatory authorities to check the safety measures in all our atomic power plants. The atomic safety regulatory authority needs to be strengthened and made fully autonomous." Ironically, this is the position we take now as Dr. Singh himself is trying hard to sell the money-guzzling, waste-producing, disease-causing and weapons-proliferating nuclear power to the Indian public.

In the light of the above situation and the overall dangerous threats the Indian nuclear estate and its power and bomb programs pose, it is high time we, all the anti-nuclear activists, organizations and movements across India, came together and discussed the socioeconomic-politi-

cal, environmental and other consequences of nuclearism and charted out a national course of action to oppose the nuclearisation of India's national futures. Delineating the nature of nuclear politics in India and its implications to our national life, we need to develop a coherent strategy of resistance against the nuclear establishment and its projects.

**Notes:**

1. The Comptroller and

Auditor General of India (CAG) has rapped the Department of Atomic Energy for being unable to exploit the country's uranium resources and running the nuclear power plants at half their capacity or less. The DAE has responded that the CAG's observations amounted to a "theoretical exercise that can lead to misleading conclusions" and pointed out that plants were being operated at lower levels to conserve fuel. The DAE has blamed its inability to

open new mines on "hurdles" such as law and order issues and environmental clearances. The unimpressed CAG has said that the DAE's "best efforts" were "belated" and did not yield the desired results. See Sandeep Dikshit, "DAE pulled up for nuclear fuel shortage," *The Hindu*, February 22, 2009.




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## ***II. Nuclear isn't necessary: The notion that we need nuclear power to address climate change does not reflect the realities of the marketplace or rapid new developments in energy technology***

**Arjun Makhijani\***

**I**T is now generally understood that carbon dioxide emissions from fossil fuel burning are at the centre of the climate crisis. In the electricity sector, that primarily means the burning of coal. China and the United States are the leading users, and Russia, Germany and India also use coal as a mainstay of power generation. Long-term assured carbon sequestration is not yet a proven technology, and it is unclear when it might become available on the required scale. In environmental terms, the world cannot afford new coal-fired power plants; indeed, even existing coal-fired power

plants may have to be phased out before 2050. The nuclear-power industry, proclaiming a 'nuclear renaissance', has suggested itself as a saviour with a simple formula: if you don't like coal, build nuclear plants.

Politically, support for new investment in nuclear power is gaining traction. In the US, Republican presidential candidate John McCain has pledged to build 45 plants in 20 years if elected, while Democratic Candidate Barack Obama admits that nuclear power is probably necessary to meet climate goals, conditioning his support on a prior resolution of concerns about terrorism, proliferation and waste. Across the Atlantic, the UK government has stated its intention of including nuclear power in electricity plans, motivated mainly by climate concerns. Asia, home to almost all of the 35 new power plants under construction globally in 2007, also clearly supports the expansion of nuclear energy<sup>1</sup>.

Considerable backing for nuclear power has also emerged in some unusual quarters. Perhaps the best-known scientist advocate

is James Lovelock, who conceived the Gaia hypothesis, in which he proposed that the biological and physical components of the Earth form a complex, interacting system.

According to Lovelock, renewable energy sources can contribute only a "small" amount to the world's future energy mix, and there is "no chance" that they will supply enough energy to replace conventional sources on the timescales needed to stem climate change<sup>2</sup>. Hence, the world should "emulate the French", who get almost 80 per cent of their electricity from nuclear reactors, because it is "the only effective medicine we have now"<sup>3</sup>.

### **Reliable renewables**

The common perception is that renewables can provide only a small portion of the energy supply - unlike nuclear plants, which

can supply baseload power, churning out electricity day in, day out for extended periods.

Actually, though, renewable energy resources are plentiful, but not fully exploited. For instance, the wind-energy potential of the United States is about three times greater than its current total electricity generation<sup>4,5</sup>. And the potential for solar energy is even greater. Land area in the US southwest equivalent to one-eighth the area of the state of Nevada could supply all present-day US electricity generation<sup>6</sup>. About three per cent of the area of Saudi Arabia could supply the present South Asian population with solar electricity at the European average consumption level of about 6,000 kilowatt-hours per year. Less than one per cent of the area of the Sahara could do the same for Europe and Africa. In many places, solar scarcely needs new land area, because photovoltaics can be built in modules on commercial rooftops, parking lots and other available urban surfaces<sup>7</sup>, right where most of the electricity is needed.

Though intermittency of supply has often been cited as an important disadvantage of wind and solar power, it can be overcome by coordinating these energy sources in a distributed smart grid that tailors the shape of demand closer to the availability of supply. For instance, a new device, now commercially available, integrates an ice-making function into air-conditioners. Ice is made at times when electricity supply is plentiful; air conditioning is accomplished when the weather is hot, mainly using the

cold stored in the ice. In a smart grid configuration, such devices would mainly be remotely controlled by the grid operator, allowing demand for air-conditioning electricity to be tailored to its availability.

Furthermore, reserve capacity from natural gas could be added as the share of renewables on the grid reached relatively high levels. Specifically, in the United States, natural-gas-fired power plants, built on the incorrect assumption of perennially cheap fuel, are now idle more than 80 per cent of the time<sup>8</sup>. In 2006 the US natural-gas-fired capacity was about 340,000 megawatts excluding cogeneration plants, enough to supply about half of its peak demand. This capacity could be put to excellent use to back up renewables and would be sufficient to support a well-coordinated wind and solar system providing up to 40 to 50 per cent of total US generation.

And unlike nuclear power plants, wind energy and solar photovoltaics do not require cooling water, which could be a crucial consideration for a reliable power supply in the future.

Also worth considering is that the technology has now been commercialized for storing heat in molten salts at concentrating solar-thermal power plants. Plants with sufficient storage to generate electricity for 6 to 16 hours after sundown are on the drawing board. Widespread deployment of this technology would reduce the need for natural-gas standby support for solar and wind energy. After about 15 or 20 years, even the use of natural gas for electricity generation can gradual-

ly be phased out.

### **Consider the costs**

Another of the supposed benefits of nuclear energy is its reputed low cost, but this is true only of existing depreciated plants, for which fuel and operating costs are the main cost elements. For new plants, capital costs dominate, and for those in the planning stage today, nuclear-industry and Wall Street capital cost estimates are in the range of US \$5,000 to US \$8,000 per kilowatt. This implies total electricity costs of 10 to 17 cents per kilowatt-hour, assuming a privately owned power plant with no subsidies other than insurance.

A case in point is the reactor being built in Finland by the French company AREVA, the first such plant to be built in Europe in 15 years. Its cost has risen from euro-dollar 3 billion to euro-dollar 4.5 billion - or about US \$4,200 per kilowatt - plus substantial penalties for delays. It has run two years over schedule and is now due to come online in 2011.

In comparison, wind energy, at 8 to 12 cents per kilowatt-hour, is already more economical. And though solar-photovoltaic electricity is more expensive than nuclear today, on average, the energy industry is still in the early stages of a shake-out between the various technologies. For instance, new large-scale solar-photovoltaic plants ordered by the California utility Pacific Gas and Electric are expected to yield electricity costs that are about the same as wind-generated electricity or concentrating solar power plants<sup>9</sup>.

Unlike that of nuclear power

plants, the cost of solar-thermal power is actually declining and is expected to fall below 10 cents per kilowatt-hour within the next decade<sup>10</sup>. Moreover, concentrating solar-thermal power plants currently can compete with nuclear on cost. For instance, Arizona Public Service has signed a contract with a Spanish company, Abengoa Solar, for a 280-megawatt plant at about 14 cents per kilowatt-hour. The plant will have six hours of heat storage and will be available to supply electricity about 90 per cent of the time on hot summer days and evenings - the time of peak demand<sup>5</sup>.

But the economic costs of expanding nuclear energy pale in comparison to the potential environmental costs. Even those who support a new generation of nuclear power plants are uncertain how to deal with the waste that the industry has created in the past. France, which supposedly 'recycles' its nuclear waste, actually uses only one per cent of it as fuel, the plutonium part, separated in a reprocessing plant at La Hague on the Normandy peninsula. Of the 95 per cent that is contaminated uranium, it has sent some to Russia. Most of the rest is piling up in France and may have to be declared as waste in the absence of even more costly breeder reactors and reprocessing plants to convert the uranium-238 to plutonium.

Even if we ignore the perils of nuclear proliferation, global efforts to commercialize the plutonium economy have failed after more than half a century and US \$100 billion in expenditures<sup>11</sup>. A deep geologic repository will now

be needed for the high-level reprocessing waste that is piling up at La Hague in the form of radioactive glass logs.

Roughly 400 million litres of low-level liquid radioactive waste pour into the English Channel each year from the La Hague reprocessing plant, and similar discharges from any newly built facilities would be a concern.

Expansion of nuclear energy would doubtless leave large areas of land covered with uranium-mill tailings threatening future water supplies with contamination by radium-226 and thorium-230, which have half-lives of 1,600 years and 75,000 years, respectively.

Even a program designed to maintain the 16-per-cent share of global electricity that nuclear has at present would need an estimated one thousand reactors and create considerable risks<sup>12</sup>. Multiplying the reactors and spent-fuel storage facilities could also raise the number of targets for terrorist attacks, creating security risks.

Then there are the proliferation problems of plutonium. More than 80 tonnes of surplus separated commercial plutonium - about 10,000 bombs' worth - is stored at La Hague, second only to the British stock of over 100 tonnes at Sellafield. To emulate France and get three-fourths of global electricity from nuclear power, the world would have to build more than two reactors of one gigawatt each per week over the next 42 years.

Supplying them with fuel would require about four new uranium-enrichment plants to be built somewhere in the world

each year. Today, just one such plant - being built in Iran, where the government claims it is for peaceful purposes - is at the centre of a major global diplomatic crisis.

The notion that nuclear power is necessary to address climate change does not reflect a close examination of the realities of the marketplace or rapid new developments in solar energy, wind energy and energy storage technologies. Indeed, current cost trends indicate that new nuclear power plants are likely to be economically obsolete even before the first new ones come online in the United States. Relying mainly on large power plants in a centralized grid today is the electrical equivalent of depending on punch cards and mainframe computers - clunky, costly, risky, inefficient and unnecessary. The age of laptops and the Internet offers the opportunity of solving the climate crisis by moving to a world of smart, secure, distributed, efficient and fully renewable grids. For the sake of environmental health, global security and the economy, we should seize the moment and get it done.

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**[Source:  
<<http://www.nature.com/climate/2008/0810/full/081003.html>>.]**

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### **III. Is Nuclear Power - Economically, Environmentally or Socially - A Viable Solution for our Energy Security?**

**Ullash Kumar R.K.\***

**A**T this time, when the Atomic Energy Commission, our national leaders, experts etc are advocating Nuclear (Fission) Power (NP) for energy security of the country and to sustain an economic growth rate of about 10 % plus per annum, it is important that the facts are made known without distortions and that legitimate arguments for and against nuclear power are heard and given due consideration, before plunging for nuclear power in a big way.

#### **Does Nuclear Power provide Energy Security?**

If the entire economically acces-

sible conventional Uranium - 235, the only naturally occurring nuclear fission fuel resources on the planet (currently and future), are estimated to last for only next 50 years, at the current level of nuclear power production, now revised to 100 years (IAEA release, June 3, 2008), how does it provide global energy security? How can it be classified as renewable sources of energy or replenishable?

If India has to depend on imported nuclear fuel (uranium) and imported reactors dependent on imported enriched uranium, how is the country's energy security guaranteed? In India, the present installed capacity of

the nuclear power plants is reported to be about 4,000 MW, less than 3% of total reported installed capacity of 1,60,000 MW of electricity and much lower than the installed capacity of wind mills. Even assuming that India, with signing of the "123 Agreement" with the USA, will achieve the projected target of 60,000 MW Nuclear Power capacity by 2031-32, at huge economic, environmental and social costs, it will hardly be 7.5% of total projected capacity requirement of 8,00,000 MW by then.

#### **Is Nuclear Power Cheap?**

During the initial years of devel-

opment of nuclear energy, almost half a century ago, the scientists held out a hope that power from nuclear energy would be so cheap that we would not be required to 'meter' electricity. However, over the years it has become clear that there are heavy costs involved in producing power from nuclear energy. The capital costs in setting up a nuclear power plant are very high, not to talk of the costs of the waste disposal, making nuclear power significantly more expensive

Nuclear energy is not only a high-risk technology in terms of safety, but also with respect to financial investment. It does not stand a chance in a market economy without state subsidies. The costs for decommissioning a nuclear power plant are very high and the costs of isolating radioactive byproducts/wastes from the biosphere and safeguarding them for hundreds of thousands of years cannot even be estimated.

### ***Is Nuclear Power Clean and Safe?***

Throughout the entire nuclear fuel cycle from mining of uranium ore to spent fuel disposal, one has to worry about the hazards due to radiation. The miners, people living close to the mines, personnel and scientists handling radioactive material, workers in nuclear power plants and people living close to these plants are all exposed to serious levels of radiation, having serious and long lasting adverse health hazards like tumours, cancer, congenital deformities etc. In addition

other toxic materials are also released into the biosphere at different stages of the nuclear fuel cycle. (For more information, please visit <http://www.ratical.org/radiation/WorldUraniumHearing/GordonEdwards.html>.)

From a personal point, I myself have seen what the nuclear power plant at Kalpakkam has done to the environment around that area and to the people.

Many of the people in villages nearby Kalpakkam like Meyurkkuppam are affected by different types of cancer. The fish and aqua life in the sea along the Kalpakkam coast are also affected by radioactivity. Also scientists have found after the 26/12 Tsunami that radiations from Kalpakkam have reached far south.

Now if we have plants coming in Koodankulam, the westerly winds will affect whole of Kerala. The entire Kerala coast will be radioactive, with natural radioactivity from black sand together with human made radioactivity coming from the plants. It will be the death knell of the Kerala tourism industry. People living from Kanyakumari to Calicut will all be affected by radioactivity. It is not at all safe to have nuclear power plants.

### ***Who is Accountable for Hazardous Radioactive Wastes?***

The more important issues like the problems of radiation from the wastes generated by mining and processing of uranium ore, to storage of nuclear wastes are being overlooked. As the Indian

uranium ore is of very low grade (concentration of around 0.067% or even lower), only thing that will be left after 30 years of operation of mining and processing a huge amount of radioactive wastes, spread all over the surrounding areas, contaminating air, soil, underground and surface waters.

Who is accountable for all these radioactive wastes, which will, in all probability, be left unattended after the closure of the mines and processing plants, and will continue to affect future generations for hundreds of thousands of years, which defy human imagination? But political expediency makes even honest people with integrity overlook the stark and naked truths. The electricity is but the fleeting byproduct of nuclear energy. The actual product is forever deadly radioactive wastes.

### ***Does Nuclear Energy Combat Climate Change?***

Since different stages of nuclear fuel cycle produce large amounts of radioactive and other toxic wastes, it is certainly not environmentally clean and safe source of energy, as is being claimed by some agencies. The nuclear energy can replace only to some extent the electricity producing technologies responsible for carbon emissions. However, carbon emissions from mining, milling, transportation and constructions associated with nuclear power, would still continue to take place. The idea that nuclear energy will help combat global warming is illusory, because for that to happen, a new nuclear

power plant must come up every week.

Extensive studies have shown that each dollar invested in using energy more efficiently by the consumers, reduces nearly six times more CO<sub>2</sub>, than a dollar invested in nuclear power. The nuclear power is neither the answer to modern energy problems nor a panacea for climate change challenges and it doesn't add up economically, environmentally or socially.

### **Must Energy Consumption Rise in Lockstep with Economic Growth?**

The experiences of other countries show that it is not necessarily so. It is nothing but suicidal trying to target for higher per capita consumption of energy, instead of trying to improve efficiency and cutting down the energy intensity, through attitudinal and policy changes and technological innovations.

### **What are the Viable Alternatives for Sustainable Energy Security?**

There is a huge potential of energy savings, which is estimated to be about 25 % of the energy consumption in India, through energy efficiency meas-

ures such as, making use of natural light and ventilation in buildings during day time, use of CFLs, LEDs for lighting, switching over to "Star Rated" products and energy efficient technologies, which in combination of renewable sources of energy, could be much cheaper and definitely much cleaner and safer than building new nuclear power plants.

It would be more prudent to invest, just as much money and imagination in solar energy, as has hitherto been put into nuclear power. Therefore reorienting the planning and budget priorities, for vibrant R&D to explore and develop the potentials of solar, wind and other renewable and non-conventional energy sources. It makes more sense than opting for FBR and Thorium based cycle.

### **Conclusion**

"We were promised unlimited energy. The promise was a delusion. What was given to us is a restriction of our freedom as inhabitants of this planet: We can no longer drink just any water and we may no longer step out onto any ground. For many people it has become dangerous to breathe deeply. There is no

such thing as the so-called peaceful use of nuclear energy. We owe it to ourselves and to those who will come after us to put an end to the use of nuclear technologies forever. May The World Uranium Hearing in Salzburg contribute to that end"--Claus Biegert, Fed.Rep. of Germany, Journalist .

The above are a few thoughts and opinions compiled from various sources and are open for debate and correction, with a view to find solution for the sustainable Energy Security of our country. The Human beings are at the centre of concerns for sustainable development and the human beings are entitled to a healthy and productive life.

Acknowledgement: World Information Service on Energy Publication, Nuclear Monitor,

Integrated Energy Policy Report of the Expert Committee, Planning Commission , GOI , etc.

**\* Ullash Kumar.R.K. is a freelance journalist, wildlifer and naturalist.**




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## **IV. Support International Renewable Energy Agency (IRENA): Time to Ban the Bomb and the Reactor**

**Alice Slater\***

**W**ITH the world's hopes newly raised by inspiring statements from prominent leaders urging the elimination of nuclear weapons, includ-

ing pledges by Presidents Obama and Medvedev, to work for "a nuclear free world", the recent establishment of the International Renewable Energy

Agency (IRENA) could actually enable us to realistically fulfill the Non-Proliferation Treaty's mission for nuclear disarmament. In January, Germany, together with

Denmark and Spain, launched IRENA in Bonn with 75 nations who signed its founding statute<sup>1</sup>. Since IRENA is the Greek word for peace, this auspicious initiative is particularly well-named as the Agency is designed to spread the fruits of clean, safe sustainable energy, enabling the planet to avoid nuclear proliferation and catastrophic climate change and assist developing countries to access the abundant free energy resources provided by our Mother Earth.

IRENA precludes reliance on fossil, nuclear and inefficient traditional biomass energy. With an International Atomic Energy Agency, promoting dangerous and toxic nuclear power technology, and an International Energy Agency, founded during the 1970s oil crisis to manage the fossil fuel supply, IRENA's launch could not have been timelier as the world wrestles with the twin crises of nuclear proliferation and global warming. We urge every nation to join IRENA by signing its founding statute and to forego or phase out deadly nuclear technology, whether for war or for peace.

Throughout the years of this NPT process, we NGOs have warned states parties that the spread of nuclear energy spells disaster for efforts to control the proliferation of nuclear weapons or to mitigate the impacts of climate change, threatening the very future of humanity's existence. Distinguished physicians at these meetings have described for you the awful physical effects of carcinogenic pollution from nuclear power with increased cancer, leukemia, and birth defects in

every community where nuclear reactors spew their lethal poisons into the air, water and soil<sup>2</sup>. Since we last spoke to you, new German studies show a 60% increase in solid cancers and a 117% increase in leukemia among young children living near German nuclear facilities between 1980 and 2003.<sup>3</sup>

Indigenous leaders from around the planet have stood here and told you about the awful horrors wreaked on their communities from uranium mining. We reminded you of the creation story of the Rainbow Serpent, asleep in the earth, guarding over those elemental powers which lie outside of humankind's control and how any attempt to seize those underworld elements will disturb the sleep of the serpent, provoking its vengeance: a terrible deluge of destruction and death.<sup>4</sup> At the World Uranium Hearing, the world was warned that:

*The Rainbow Serpent has been awakened. Men turned into shadows, cancer, women giving birth to jellyfish babies, leukemia - since the bombing of Hiroshima and Nagasaki in August 1945, since the Bravo test in the Bikini Islands, and since the Chernobyl catastrophe in April of 1986, we know that the Rainbow Serpent doesn't differentiate between uranium's military and peaceful uses. Death is everywhere it touches. But what we perhaps don't realize is that the destructive properties of uranium are unleashed the moment it's mined from the ground.*<sup>5</sup>

We have told you there is no known solution to the storage of nuclear waste which lasts for hundreds of thousands of years, spewing its silent poisons into our air, earth and soil, injuring not

only the living, but unborn generations to come—our very genetic heritage. The United States, in 2009,<sup>6</sup> cancelled 30 year-old plans to bury nuclear waste at Yucca Mountain Nevada because it cannot safely contain the long-lived poisons that the nuclear industry lobbied to bury there for eons. After more than 60 years of ignorantly and mindlessly amassing huge quantities of toxic radioactive poisons, heedless of the consequences to earth's biosphere, yet another Commission is to be appointed to yet again "study the issue". We don't have a clue! Rational behavior would demand we should stop making any more nuclear waste until, and if ever, we can figure it out!!

In France, held up as the exemplar of a country enjoying the "benefits" of nuclear power, its nationally owned Areva, the largest nuclear corporation in the world, is plunged into debt. Its reprocessing center at La Hague has produced massive discharges of radiation into the English Channel and has over nine thousand containers of radioactive wastes with no safe place to go. In Japan, the costs from the earthquake last year that crippled seven reactors at Kashwazaki are still rising.<sup>7</sup> In the UK, the Sellafield nuclear recycling plant is mired in debt and costly breakdowns.<sup>8</sup>

We have explained to you how the nuclear industry promotes false information about nuclear power's ability to mitigate the effects of catastrophic climate disasters. Millions of dollars are spent in marketing campaigns to convince the public that nuclear power will prevent global warm-

ing.<sup>9</sup> But the evidence is incontrovertible that nuclear power is the slowest and costliest way to reduce CO<sub>2</sub> emissions. Financing nuclear power diverts scarce resources from investments in renewable energy and energy efficiency. Enormous sums spent for nuclear power would worsen the effects of global warming by buying less carbon-free energy per dollar, compared to investing those sums in sun, wind or efficiency.<sup>10</sup> Nor is nuclear power carbon free.<sup>11</sup> It uses fossil fuels for the mining, milling and processing of uranium, as well as for reactor decommissioning and waste disposition and depends on a grid usually powered by coal. It is unreliable in extreme weather conditions and needs back up power to prevent meltdown. In the summer of 2004, France had to shut down a number of reactors during an extreme heat wave.<sup>12</sup>

We have spoken to you of the folly of lusting for mastery of nuclear technology as a matter of "national pride". This is holdover thinking from the 1960s when nuclear power developed in industrialized nations. Many scientists in developing countries were trained in nuclear technology as part of the Atoms for Peace programs in the US, Russia and Europe during the late 1950s and in the 1960s.<sup>13</sup> Nuclear power growth stalled in the industrialized countries by the late 1980s, especially after the tragedies of Three Mile Island and Chernobyl, and as its economic burdens became clear. But by then the former young scientists were entrenched in running the industry and like their nuclear reactors

were now middle aged and unwilling to let go of their positions of power.

The nuclear renaissance was to be a passing on of the inheritance to the next generation but real world constraints are making this generation of new reactors even more problematic than the last and the nuclear baton is not likely to pass out of the existing "club". The enormous cost and safety problems are still here. In the industrialized nations, the nuclear industry has great difficulty in recruiting nuclear engineers.<sup>14</sup> Due to global shortages in nuclear reactor components it's not possible for the world nuclear industry to build more than 10 reactors a year at most for the next decade.<sup>15</sup> Because all of the operating reactors will have to be retired in that time, 1070 reactors would have to be built in 42 years, or about 25 reactors per year, in order for nuclear technology to lower carbon emissions of even one billion tons per year.

In a "wedge" model which assumes that nuclear power could replace a portion of the energy used by coal fired plants, the effort expended would be insufficient to have even the smallest impact on climate change.<sup>16</sup> And because the limited supply of production capacity to produce new reactors creates a seller's market, the industry is much more likely to sell to countries with nuclear experience. This is due to the risks associated with inordinately long lead times for new construction, security and liability issues, and already existing infrastructure. Thus developing countries or countries with no nuclear industry will probably be

rebuffed and are well advised to put their energy investments into much more reliable renewable sources

Nevertheless, proposals to try to control civilian nuclear fuel production have sparked new interest in acquiring nuclear technology by countries that never wanted such technology before. A top-down, hierarchical, centrally controlled nuclear apartheid fuel cycle is being planned, creating a whole new class of nuclear "have nots" who can't be trusted not to turn their "peaceful" nuclear reactors into bomb factories. *It's just so 20th century!* These discriminatory proposals are doomed to fail. With the growing chorus of promising new calls for a nuclear free world, there is no need for any nation to have a virtual bomb in the basement. Far better to leap frog over this antiquated, poisonous 20th century technology and expend your financial and intellectual treasure on clean, safe renewable energy, averting the twin catastrophes of nuclear proliferation and radical climate change, while adding your nation's voice to the growing numbers of world leaders demanding that negotiations for nuclear weapons abolition move forward.

Critical energy investment choices must be made now if we are to prevent the looming climate calamity. Every thirty minutes, enough of the sun's energy reaches the earth's surface to meet global energy demand for an entire year. Wind has the potential to satisfy the world's electricity needs 40 times over and could meet all global energy demand five times over. The

geothermal energy stored in the top six miles of the earth's crust contains an estimated 50,000 times the energy of the world's known oil and gas resources. Global wave power, tidal and river power are vast untapped stores of clean energy.<sup>17</sup> IRENA is dedicated to supporting nations to develop and share the research and technology that will enable us to harness that abundant, free energy to secure the future of our planet.

While the NPT guarantees to States which agree to abide by its terms an inalienable right to so-called peaceful nuclear technology, it is highly questionable whether such a right can ever be appropriately conferred on a State. Inalienable rights are distinguished from legal rights established by a State as moral or natural rights, inherent in the very essence of an individual. The concept first appeared in Islamic law and jurisprudence which denied a ruler "the right to take away from his subjects certain rights which inhere in his or her person as a human being" and "become rights by reason of the fact that they are given to a subject by a law and from a source which no ruler can question or alter". John Locke, the enlightenment philosopher who coined the phrase "inalienable rights", was thought to be influenced in his thinking by his exposure to Arabic law.<sup>18</sup>

During the Age of Enlightenment natural law theory challenged the divine right of kings. The United States' Declaration of Independence spoke of "self-evident truth" that

all men are "endowed by their Creator with certain unalienable rights ...to life, liberty, and the pursuit of happiness." Where does "peaceful nuclear technology" fit in this picture?!? Just as the signing of the Comprehensive Test Ban abrogated the right to peaceful nuclear explosions in Article V of the NPT, we urge you to adopt a protocol to the NPT mandating participation in the newly launched International Renewable Energy Agency (IRENA) which would supersede the Article IV right to "peaceful" nuclear technology.

Civil Society's Model Nuclear Weapons Convention, now an official UN document, includes an Optional Protocol Concerning Energy Assistance which would phase out nuclear power and provide funding and assist nations to shift to non-nuclear sustainable energy sources.<sup>19</sup> Universal enrollment in IRENA, coupled with a moratorium on new reactors and fuel production, while phasing out nuclear power by relying on safe, renewable energy, must become an integral part of the good faith negotiations required to eliminate nuclear weapons. We urge all nations to enroll and participate with IRENA. Since IRENA was launched in January with 75 countries, three new countries, Belarus, India and Guinea have signed its Statute.<sup>20</sup> NGOs will campaign for 100% universal participation in IRENA by the 2010 Review Conference. If your country has not yet joined, please urge your leaders to do so. It's time to give peace a chance!

**(Based on the speech delivered at NPT PrepCom as part of NGO presentations to the delegates United Nations, NY, May 5, 2009.)**

**\* Alice Slater is the New York Director of the Nuclear Age Peace Foundation and a founder of Abolition 2000.**

#### Notes:

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4. <http://archive.greenpeace.org/comms/no.nukes/minfabmi.html>
5. <http://www.ratical.org/radiation/WorldUraniumHearing/>
6. France's nuke power poster child has a money melt-down, Harvey Wasserman, Free Press, March 19, 2009, <http://www.freepress.org/columns/display/7/2009/1732>
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15. <http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=22748&prog=zgp&proj=znpp> , chap.3, p. 85
16. [http://www.carnegieendowment.org/files/3-12-08\\_squassoni\\_testimony1.pdf](http://www.carnegieendowment.org/files/3-12-08_squassoni_testimony1.pdf)
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## **V. Stories of Grassroots Struggle from Andhra: Campaign against Uranium Projects in Nalgonda**

**Saraswati Kavula\***

IT has been nearly six years since the Uranium Corporation of India Limited (UCIL) proposed uranium mining and processing projects in Nalgonda district. In July 2003, an advertisement in *The Hindu* brought this issue to the attention of Dr. K. Satyalakshmi, who had just a while before seen the film, "Buddha Weeps in Jadugoda", about the impacts of uranium mining in Jadugoda, Jharkhand. The advertisement was about the Environmental Public Hearing about proposed uranium mining and processing projects in Nalgonda, to be held on August 19, 2003, seeking public opinion regarding the proposed projects. A quick meeting held in Thinksoft office, convened by Capt.J.Rama Rao brought together many of us, who were until then strangers to each other, but later on became co-activists continuing until date. During that meeting after much explanation about the impacts of uranium mining by Dr. K Babu Rao followed by brainstorming for strategies, we decided to campaign on this issue and formed

the Movement Against Uranium Projects(MAUP), a conglomerate of more than 20 organizations, NGOs and individuals. Till date, it has remained a platform open to everyone who wished to associate with the issue.

The first step was to create awareness and within a week, many printed handouts were prepared to educate the public about the impending dangers of the project which was to come within one kilometre distance of the Nagarjunasagar Reservoir. While we had made many handouts, the film "Buddha Weeps in Jadugoda" played a major role. Within the next one week, the film was dubbed into Telugu and we then took it to the villages which fell within the vicinity of the proposed project sites. Needless to say, there was scepticism, but also a lot of outcry from the public, especially women. The task of winning public opinion was not easy. In some villages where the local leaders were bribed, people's opinion was influenced against us. Especially since UCIL had taken some of the local leaders to

Jadugoda, on a conducted tour to see the development - like roads, school, the hospital, big offices etc without allowing them any interaction with the affected villagers. UCIL also distributed pamphlets (anonymously) saying that we were all foreign funded agents who did not wish India to "develop". Naturally people got suspicious.

However, after much campaigning like going to various villages, colleges and schools, in Nalgonda and Hyderabad, there was a large turn out at the public hearings. It was the only instance that on the same day, for the same cause, two public hearings had to be held. UCIL had decided to hold the public hearing in Peddagattu. But the village was very much inaccessible and also the villagers were hostile towards those who were opposing the project, since their sarpanch and other leaders who controlled the people's opinion were bribed. However, Rajitha, a lawyer from Nalgonda and member of MAUP, filed a petition in the High Court saying that this particular site was inaccessible and

since the project was to affect the entire district, the public hearing had to be held at the Mandal Headquarters, Pedda Adiserla Pally. The UCIL said since they had already made arrangements at Peddagattu they would not be able to shift the venue, to which the Court gave a directive that if they prefer to hold the Public hearing at Peddagattu, it is up to them, but they must hold also a public hearing at PA Pally. It was thus, that on the 19th August, 2003, at 10.30 am there was a public hearing at Peddagattu village and later in the afternoon one more public hearing was held at PA Pally. At Peddagattu public hearing by the time we reached around 10.30 am, a fight broke out and the villagers of Lambapur who were opposed to the project, (which is another mine site) were beaten up by the people of Peddagattu, and the Collector and the administration behaved like inactive onlookers. As expected, none of us, who were opposed to the project, were allowed to speak by the Collector. It was the UCIL's show all the way. Even senior scientists like Surendra Gadekar were not allowed to speak. But at the Public hearing in PA Pally, the situation was totally reversed. A large group of people, many of them students and villagers turned up from all over Nalgonda district. In addition to the villagers of Lambapur, a lot of media from the city, environmental activists from across the country, senior journalists like Praful Bidwai also attended to voice their opinions. Thus, the UCIL could not play its games in PA Pally and there was a thundering

opposition from the public.

Since the processing plant at Dugyal and Mallapur was close to the Akkkampally Balancing Reservoir which supplied water from Nagarjunasagar to the twin cities and many hundred villages along the route, the Hyderabad Metropolitan Water Supply Board also raised its objections to the project. Thus, in 2005, the government proposed to shift the processing plant to Seripally Village in Devarakonda Mandal of Nalgonda District, saying that the processing plant near Akkampally Balancing Reservoir (AKBR) will affect the water reservoir. But they allowed the mining at Peddagattu and Lambapur, where the mine sites were just 1-2 kms away from Nagarjunasagar Reservoir saying that since mining is site specific they cannot shift the venue!

This time the villagers of Seripally, told UCIL that they will not even allow them to hold the Public Hearing. Thus, UCIL had to hold its public hearing in an open land outside the village. Once again, there was an overwhelming opposition at the public hearing. Women from the Lambada community walked all the way to the Public Hearing carrying placards saying, "We don't want Uranium Projects". Out of the 60 people who spoke at the public hearing 57 opposed the projects.

After the public hearing, however, the government gave permission to the projects and MAUP had filed a petition with the National Environmental Appellate Authority (NEAA). The NEAA after sitting on the issue for two years rejected our

plea in February 2009. Again MAUP filed a writ petition in Delhi High Court, challenging the order of NEAA and the outcome is awaited. As of now, there is no activity with regards to this project. UCIL is trying to continue its exploration activities, but the villagers of Peddagattu and Lambapur especially women, are sending them packing. One very positive outcome of this campaign was that the local villagers like the ones in Peddagattu who were opposed to us in the beginning, realized that we do have their welfare in mind, and today, keep a regular contact with us, updating us about UCIL's activities.

And local people like Venepally Panduranga Rao who is an ex-sarpanch of Allagadapa village helped in keeping the pressure on UCIL, by organizing a five day padayatra in January 2006. Many people came from all over India and some student activists from abroad too participated in this padayatra. The Padayatra which started with a few dozens of us, continued over 110 kms, culminating in large public meetings all along the route and forced all political parties including the local Congress leaders to join in and oppose the projects. Though Dr. YS Rajasekhar Reddy, who had opposed the projects while he was in opposition, did a U-turn and now claimed that uranium mining was harmless and good for the development of the state, resulting in the projects getting a cakewalk approval in Kadapa District, where people were not allowed to voice their opinion. The projects in Kadapa started in

November 2007, since the local people could not muster enough courage to stand up against an autocratic leader like Dr. Y.S. Reddy.

However, so far, the people of Nalgonda have been able to prevent UCIL from setting foot in the district. The media, especially the vernacular print media took up the issue with great zeal and made the issue one of the most talked about issues in the state. And activists of the MAUP like Sajaya, Chenna Basavaiah, Ambika, P. Kishan Rao kept the issue alive conducting regular public awareness activities in other districts like Khammam, Krishna, Guntur districts, which

are dependent on the water from Nagarjunasagar. The MAUP with help from the Confederation of Voluntary Associations (COVA) hosted the annual CNDP meeting at Osmania University, Hyderabad in 2006. Activists of the Jharkhandi Organisation Against Radiation (JOAR) and Magsaysay Award winner Sandeep Pandey visited the villages in 2007 and pledged their support for the cause. Another yatra focusing on the environmental issues of Telengana was conducted by V. Pandu Ranga Rao, in July 2008, which once again brought the issue into focus. A visit by mining affected women from across Asia to Seripally vil-

lage in March 2009, organized by the MMP (Mines, Minerals and Peoples), helped in the local villagers understanding the workings of the Mining companies across the globe. As of now, the UCIL is held at bay due to the people's pressure. And the people of Nalgonda district also have the distinction of having fought off a Nuclear Power Plant in 1988.

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## **VI. Proposed Nuclear Power Plant at Haripur:**

### **Chronology of Resistance**

#### **Santanu Chacraverti\***

##### **Background**

For some time there had been talk of setting up nuclear reactors in West Bengal.

It was clear by July 2006 that the West Bengal government was supporting the Nuclear Power Corporation of India Limited (NPCIL) in its plans to set up a cluster of nuclear power installations in West Bengal. It became clear by September 2006 that the proposed site was Mankaraiput, a coastal village in the Haripur Mauza, Contai subdivision, in Purba Medinipur District and was not more than 5 Kms from Junput, the oldest and most renowned marine fish landing site of West Bengal. It emerged that an NPCIL expert team had already visited and sur-

veyed Mankaraiput-Haripur earlier that year under cover of undertaking routine geological testing and had selected Mankaraiput as the site for setting up nuclear reactors.

As per media reports in November 2006, six nuclear installations of about 1500 MW each had been planned - involving a projected expenditure of Rs. 60,000 crores. It was said that the project would start off with 2 reactors and four others would come up in phases. It was clear that this nuclear endeavour would involve capturing of a considerable amount of very thickly populated coastal land, in the villages Mankaraiput, Haripur, Baguran Jalpai and other villages in the vicinity,

leading to eviction of some 10,000 local fishers, farmers and artisans etc. and exposing an innumerable number of residents to the hazards of low level radiation and possible nuclear accident.

The decision was widely perceived as a disaster, and not only by the people facing the threat of eviction. The Haripur-Junput area is economically important on two counts. It is an exceedingly important fishing site, where thousands of fishers engage in coastal fishing. Also, the soil is astonishingly fertile and produces a large array of vegetables. Moreover, the Contai subdivision is densely populated and any nuclear accident was bound to severely endanger the

life and health of hundreds of thousands of people.

### **The Calendar of resistance**

- From 7-12 November 2006 the National Fishworkers' Forum had organised agitations all throughout the Indian coast on National and local issues. In Haripur and the adjoining fish landing sites starting from Dadanpatrabar and including the fish landing sites / villages at Saula, Baguran Jalpai, Majilapur, Aladarput, Junput etc. - the agitation concentrated on the issue of proposed Nuclear power plant.
- As a part of the above-mentioned agitation, thousands of fishworkers marched through Contai and blockaded all major crossings resulting in stoppage of all traffic for two hours.
- When a high power team of experts from NPCIL arrived on 17th November 2006, accompanied by battalions of armed police, the local residents blockaded the road and prevented them from entering the area.
- On 18 November 2006 - i.e. the next day - the team attempted to enter Haripur again. Thousands of men, women and children from villages around the proposed site blockaded all entry points and the Central team, along with the police, once again beat a retreat. It needs to be mentioned that not only fishworkers but local peasants and artisans also joined the resistance in large numbers. The NPCIL high power team was compelled to retire and the Government beat a retreat for the moment. The Chief Minister however declared his resolve to carry on the project, and in this he was seconded by the NPCIL chairman.
- On 21 November, 2006, Vishwa Matsyajibi Dibas (World Fishworkers Day), about ten thousand fishworkers marched through Contai to the city Town Hall to attend the Peoples' Convention against the proposed nuclear power plant.
- On 28 November there was a mammoth rally of about fifteen thousand people at the Junput Bus Stand. The rally and meeting were attended by a number of local organisations and anti-nuclear activists from Kolkata and elsewhere. It was in this meeting that Haripur Paramanu Vidyut Prakalpa Pratirodh Andolan (Movement against Nuclear Power Project at Haripur) was formed.
- 8 December - Padayatra (Procession) of some twenty thousand people from Junput to Contai.
- 17 December - Another People's Convention at Town Hall where a large team of citizens from Kolkata, consisting of intellectuals and activists, as well as the local MLA, participated.
- 19 December - the transport minister Subhas Chakraborty and the local CPI(M) leader from Tamluk, Mr. Lakshman Seth, arrive at the Recreation Club grounds to hold a meeting in favour of the Nuclear Power Plant. The meeting was attended by less than a thousand people but it faced tremendous agitation from eight to ten thousand local residents, led by the local MLA.
- 28 December - Mahasweta Debi visited Haripur and delivered an address against the proposed nuclear power plant.
- 1 January, 2007 - Mashal Michil (Torch Procession) of ten thousand people in the evening, led by the local MLA
- 5 January, 2007 - People's Convention at Municipality Grounds Dr. Meher Engineer (Ex-Director, Bose Institute), Sujato Bhadra (APDR), Pradip Datta (Anti-Nuclear Activist), Jaya Mitra (litterateur) and other intellectuals and activists attended and spoke against Nuclear Power.
- 28 December 2006 to 5 January 2007 - Book Stall with Poster Exhibition by Haripur Paramanu Vidyut Prakalpa Pratirodh Andolan (HPVPPA) at Contai Book Fair.
- Paush Mela in January (at Junput) - Book Stall, Digital Film shows etc.
- 14 February 2007 - scientists and anti-nuclear activists from different parts of India visit Kolkata to attend a day-long deliberation against nuclear power. The deliberation ends with a resounding

declaration against the proposed nuclear plant at Haripur.

- The next day, on 15 February 2006, a large team of anti-nuclear activists from different states go on a visit to Haripur. They reach Contai and hold a meeting there, which was attended by Sisir Adhikary, the chairman of the Contai municipality. Thereafter they go on to Haripur, where they address a massive gathering on the Haripur beach. The meeting continued late into the evening and a large crowd remained till the end.
- 17 November - Haripur to Junput Torch Procession led by the fishworkers' leaders Ratna Majhi and Lakshmi Paunda.
- 18 November - Candlelight

procession in Baguran Jalpai led by Enamul Hossain, fishworkers' leader from Junput, and Birndranath Shyamal and Rashid Ali, fishworkers' leaders from Baguran Jalpai.

- Throughout 2007, the HPVPPA continued its preparations and vigil. The locality bubbled with events and activities. Discussions, debates, talks and video shows were held all over the locality, and the molecular processes of resistance continued to gather momentum.
- However 2007 was also the year of the Nandigram resistance and by 2008, particularly after the resounding left defeat in the Panchayat elections of Purba Medinipur, it appeared that the government no longer had the gumption to take on

another hub of resistance.

- Given the situation the people of Haripur and adjoining villages gradually came to feel that the nuclear plant was no longer a near possibility. Therefore for the last one year or so the HPVPPA has seen little activity.
- However, the basic idea of resistance is still in place and it appears that the movement would once again gather momentum if the authorities once again decide to go forward with their nuclear plans.

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## VII. Jadugoda Tribals Live under the Shadow of Nuclear Terror

**Tarun Kanti Bose\***

ON the basis of available information today, around 7000 people work at the Jadugoda mining complex. Hundred percent of the contract workers are tribal<sup>1</sup>. Ninety five percent of them are underground miners. In the top management or first grade posts of UCIL no tribal people are employed. A study conducted by Anumukti, (Liberation from the Atom) a journal started in 1987) is the leading anti-nuclear journal in India, in its January 2004 issue (Volume 13, Number 1), points out that as high as 55.3%

of the household in the villages have at least one person in regular employment with the UCIL. In addition Sadans, dalits and other backward castes work in the UCIL mills and mines.

Most of them work dressed in cotton uniforms and leather gloves are directly exposed to high levels of radon gas, dust and highest radiation. Once a week, these workers carry their uniforms home to be hand washed by their wives and children, exposing the entire family.

In the absence of any independent study, anecdotal evi-

dence suggests that the mineworkers are suffering an epidemic of lung cancer, skin disease and other chronic ailments. Nobody knows how many of have died.

Guria born crippled "No standards have been met in the tailing ponds construction and no measures instituted to control the radon emissions from it. As a result, they continually pose a constant threat to Dungridih, Chatijkocha, Telaitand, Mecchua, Matigora and other surrounding villages within 10-15 Kms. Even Jamshedpur, just

20 kms is not free from it. It is on the dried up tailing ponds that Dr. Arjun Soren, who is the first doctor from Jaduguda's Santhal adivasi community, once played football as a child unaware of the dangers. Today, he is fighting cancer undergoing treatment in Mumbai for 'acute myeloid leukaemia' His family cannot afford a possible life saving bone-marrow transplant. During his medical studies he continued to visit Bhatin throughout his medical studies, assuring us and other Santhals that he would return to work with us," said Ghanshyam Biruli, President, Jharkhandis' Organisation Against Radiation (JOAR) "While working in uranium mines I handled the ore during drilling operation. Mostly I was in survey work. The geologist, whom I accompanied, used to tell us at what depth the uranium would be available after inspection. All this affected my health and I developed gastric trouble, as we could never take our meals in time. The doctors kept on telling me that I had Tuberculosis (TB). Then I consulted a private doctor in Jamshedpur who told me that I did not have TB. But by then the UCIL doctors had already administered 90 injections and gave some medicine, as a consequence of which my eyes and ears have been damaged. I got my eyes treated by Dr. Mustafa of Bistupur, I now feel as if some insect is moving in my ear. I still feel sick because of drinking uranium-contaminated water; I am taking medicines for

the last 15 years. They took my blood, stool, urine and even semen samples but the result was never shown to me. They kept telling me I have TB," said Mangal Majhi of Matigora village Further, he said, "No one told us that we became sick by drinking uranium - contaminated water. We have witnessed of it on plants and animal here. There used to be 'kendu' fruits grown in the vicinity of UCIL and the tailing ponds, have turned seedless. The fish in the stream have developed all kinds of diseases and started dying. Cows and goats have also died. The buffaloes have shortened tail. Still, I am a sick person and one-fourth of my body is useless, even after taking medicines for 15 years." Radiation affected Father and Son This is in contravention of the Guidelines of the International Committee of Radiological Protection (ICRP). M M Bhagat, former Working President, UCIL Kamgar Union, said, "Gloves and masks are not provided to staff that pack the yellow cakes in drums. Nothing special is being done for uranium miners who are exposed to grave dangers. In addition, their families are exposed to slow poisoning on account of UCIL's unsafe waste management practices."

Jadugoda uranium mining has adversely affected more than 30,000 people in 15 villages within the 5km radius of the mining complex. These villages are in the radiation zone. Prominent among them are Telaitand, Matigora, Mechhua,

Bhatin, Rohimbeda, Chatijkocha, Surda, Narua, Dumridih, Dungridih, Sosoghutu, Sitadanga and Bhusabani. People in these and other villages suffer from physical deformities and a variety of illnesses such as lung cancer, skin disease and other chronic ailments. However, UCIL claims that it has not seen any effects of radiation on its workforce; notwithstanding the record of death toll- 17 workers died in 1994, 14 in 1995, 19 in 1996 and 21 in 1997. Mangal Majhi from village Matigora, just half kilometre from Jadugoda mines remembers how all this began- "Officials from Delhi used to come to Santhali villages to give training and employment. We adivasis were not interested. Persistent in their effort, the Englishmen continued to come to our houses to take us to work drop us back home in the evening. Some of us went to Rajasthan and other parts of the country with the same company. The non-tribals working with us became big shots in the company but our adivasis status remained the same. After working in different parts of the country I was sent back to Jadugoda where I worked for UCIL. In the beginning we did not know what was being mined and our Santhal community was never informed about it. When we joined the company, we had to take an oath of secrecy". The Majhi continued, "These mines the government built forcibly over our 'Jaher' (holy places). We did not like this. We did not want

them to defile our sacred places. We people were not considered human being. There was no one to protect us."

"At that point in time", the Majhi said, "Jadugoda was a grove of the castor oil tree. That what the term means. It was dense forest situated on the indigenous Santhal and Ho tribal lands in the Singhbhum East district of Jharkhand. Now it is man-made hell." All of the uranium for India's ten Pressurised Heavy Water Reactors (PHWRs) comes from single uranium mining and processing plant at Jaduguda, started by Uranium Corporation of India Limited (UCIL) in 1967.

Tailing Pond It is fed on the one hand by three underground uranium mines at Jadugoda, Narwapahar and Bhatin all within a 5 km radius, and on the other hand by the by-product from three nearby copper mines uranium recovery plants at Rakha, Surda and Musabani. This enterprise brings to the surface, from a depth of 1600-2000 feet, a low-grade ore (0.06%), not worth recovering in other countries.

Outside Jharkhand UCIL controls Domiasiat mill and mine project (West Khasi Hills district, Meghalaya); Lambapur-Peddagattu project (Nalgonda district, Andhra Pradesh). It plans to start new open cast mining at Turamdih and Bhanduhurung, just 20 kms from Jaduguda. Uranium ore is brought to the Jaduguda mill in open trucks along narrow roads linking the mines from Bhatin

four kms and Narwapahar twelve kms west of Jadugoda. These trucks are sometimes partly covered by tarpaulins and occasionally carry workers perched on top of the ore load. These dusty roads run through villages littered with loose rock fallen from these overloaded trucks. Seeing children and livestock picking through piles of uranium ore<sup>2</sup> is enough to give the casual visitor a glimpse of safety standards being observed.

This ore is crushed to a fine powder in the Jadugoda mill and is then chemically treated (an acid leach process) to extract the uranium. Jadugoda produces around 200 tonnes of uranium in the form of yellow cake (uranium concentrate) a year. It has a processing capacity of around 1000 tonnes of ore per day. By rough calculation, this means that UCIL is mining, crushing and then dumping around 330,000 - 360,000 tonnes of rock every year. The 'yellow cake' manufactured at plant is transported to the Nuclear Fuel Complex (NFC) in Hyderabad, where they used to fabricate fuel rods.

Uranium is not the only radioactive element found in the ore. There are a dozen or so others known as uranium decay products; among them, thorium-230, radium-226, and radon-222. Each of these presents a unique hazard to people and other living creatures coming into contact with them. These wastes are radioactive for around 250,000 years; in human terms this might as well be forever. In addition to

the radiological hazard, uranium ores commonly contain varying concentrations of zinc, lead, manganese, cadmium and arsenic. None of these other elements are removed during processing; all remain in the tailings along with residues of the process chemicals used to extract the uranium.

What is left are eighty five percent other radioactive products. These are made into slurry and pumped into 'tailing' ponds. The waste, known as tailings, is treated with lime to neutralise the acidity, and then separated into coarse and fine particles. The coarse tailings, making up about 50% of the volume of the waste, are backfilled into the mine cavities. The remaining fine tailings are mixed with water and pumped through a pipeline over the rooftops of Jadugoda village into the tailings dam, their final resting place. There are now three large tailing ponds at Jadugoda, impounding tens of millions of tonnes of radioactive waste and covering more than 100 acres. They are unlined and uncovered; liquids, gases and fine dust particles are rapidly cycled into the environment. During the dry season, ponds run dry, the wind picks up the loose tailings and blows them around; in the monsoon rains, the dams overflow into the river.

People have also used the ponds to graze livestock and play soccer. They regularly cross them on their way from one place to another. The ponds are constructed on traditional routes to the forest and beyond, con-

necting people with their relatives. Tailings have been used for landfill and construction materials. The complex has gradually encroached peoples agricultural land and their living space. They continue to live within 30 metres of the tailings structures, and without any source for livelihood. Jadugoda is also 'India's radioactive dump yard'. Xavier Dias pointed out "Wastes from the Nuclear Fuel Complex in Hyderabad and the BARC Rare Materials Plant in Mumbai, Mysore, Gopalpur on sea, as well as medical radio wastes from an unknown number of sources are being returned to Jadugoda. This came to light when local people began to find syringes, bags and IV pipes from hospital wastes buried in the tailings<sup>3</sup>. It is now widely understood that the company still imports this waste, and is feeding it through the mill, crushing it before discharging it into the ponds. It is likely that some of these materials are gamma radiation emitters, adding to the radiation hazard suffered by everyone in the area".

The first intervention was in 1979 when Indian Federation of Trade Union (IFTU), a labour wing of Communist Party of India (Marxist Leninist) called for a strike in Rakha Copper Mines. In this strike, IFTU demanded only 'radiation allowances' for the workers exposed to radioactive rays. No political party or a trade union raised the these issue confronting the mining community and those living in the vicinity of

the mining site, " said Shamit Carr, now a researcher and member, Bharatiya Shramik Sabha. Earlier he worked with IFTU.

At this point in time Singhbhumi Ekta (Singhbhum's Unity), a Trade Union engaged in AJSU activities, developed a special relation with IFTU. Xavier Dias who at this point in time member of AJSU-Singhbhumi Ekta front got involved with this labour struggles in Jadugoda. According to Xavier Dias "The 1979 strike, was unsuccessful but it brought the issue of radiation to the fore. It inspired and partially politicised several educated tribal youth, who were until then unconcerned with radiation and its adverse impact on the adivasis living in Jadugoda".

In 1980s All Jharkhand Students Union (AJSU) led an upsurge on the identity question. Militant bandhs for two-three days were staged by urban youth. AJSU called for elections boycott. However, its associate, Jharkhand Peoples' Party jumped into electoral politics. The result was unrecoverable disaster. Disenchanted, most of the front ranking AJSU functionaries from the Ghatshila and Potka blocks in East Singhbhum district broke away from the organization in 1989 and launched an independent struggle against displacement and unemployment in Jadugoda. They formed Jharkhand Adivasi Berojgar Visthapit Sangh (JABVS) or the Jharkhand Tribal Unemployed Displaced Committee.

"At that time we knew nothing about radiation. We knew there was radiation but we didn't take it as a serious issue" recollected Xavier. Over a period of time Ghanshyam Biruli, now the President of JOAR, points out that 'people slowly started to notice rashes, deformities on fellow beings, cows were being born without tails, fish with unknown skin diseases were being discovered, small animals, including mice, monkeys and rabbits were disappearance from the area, Kendu fruits had become seedless... "In 1991 when the preparations for the World Uranium Hearings had started, we read literature on the consequences of uranium mining- we were shocked", recollected Xavier Dias. We decided to set up an organization to take this struggle forward. Xavier set up the Jharkhandis Organisation Against Radiation (JOAR) in 1991/92 to pressurise UCIL management to reform its operations. This organisation worked together with the All- Jharkhand Students Union that had started an organisation of displaced and unemployed tribal people.

At the World Uranium Hearing<sup>4</sup>, 400 delegates and observers from across the world participated. Xavier Dias represented JOAR at the hearing. Along with him there were other three delegates and an observer from India. The deliberations and interactive sessions in the Hearing helped Xavier to understand the politics behind the uranium production. "In the World Uranium Hearing, I was

astounded by the fact that eighty percent of uranium in the world was being dug out from indigenous lands. The indigenous people are worst victims on the altar of world's nuclear weapons development programme. Not only in India, even in Canada, USA, Latin America, Australia and in Africa. In India Jadugoda and Domisiat in Meghalaya, were tribal area, where rich deposit of uranium was found", said Xavier Dias Participation in the World Uranium Hearing made it clear, pointed out Xavier, that the State by design was smothering tribal identity. This was genocide an integral part of India's nuclear development programme. The deployment of CRPF, CISF and other paramilitary forces at Jadugoda ensured secrecy keeping tribals from knowing what happens in the process of mining uranium and transporting it to other places Truck with uranium without any cover In the absence of any official initiative to find out the health of the people living around the mine, in 1993, Bindrai Institute for Research Study and Action (BIRSA) in collaboration with JAVBS (now JOAR) conducted a survey in seven villages within 1km of the mining site (specifically tailings dams, described later). [BIRSA was started in 1989 It was planned as a research, training and documentation centre by a group of intellectuals and activists connected with the various People's movements of Jharkhand BIRSA set its goal to nurture its own leadership from

amongst the Jharkhandi activists and in the ten years of its history is has achieved this to a good extent.] Dr. Imrana Qadir of Centre for Social Medicines, Jawaharlal Nehru University (JNU), New Delhi trained midwives, who were also village level health workers, for field investigation. The survey was designed to find out instances of stillborns, deformed children and other new ailments and explain to the people the harmful effects of radiation. It took two years to complete the survey.

"The report revealed that 47% of women suffered disruptions in their menstrual cycle, 18% said they had suffered miscarriages or given birth to stillborn babies in the last 5 years. 30% suffered fertility problem. Nearly all women complained of fatigue, weakness and depression. Further, the survey found a high incidence of chronic skin disease, cancers, TB, bone, brain kidney damage, nervous system disorders, congenital deformities, nausea, blood disorders and other chronic diseases. Children were the most affected-born with skeletal distortions, partially formed skulls, blood disorders and a broad variety of physical deformities. Most common is missing eyes or toes, fused fingers or limbs incapable of supporting them. Brain damage often compounds these physical disabilities." In addition, the researchers found that 30,000 people within 5 km of the mining area were being exposed to abnormally high levels of radiation." said Ajitha George of

BIRSA, who was co-ordinating the BIRSA/JOAR study.

These damages from low-level radiation slowly degrade the DNA material destroying the inheritance upon which the whole human race depends. Once the genes have been damaged there is no hope of repair.

It is impossible to gauge how much radioactive material is circulating within the environment and how it is being taken into the food chain. The little that is known is frightening.

For nine years after UCIL served notice in 1985 to the villagers of Chatijkocha that their land would be acquired for construction of the third tailings pond, nothing happened. Then suddenly in 1994 the villagers were directed to appear at the UCIL offices to collect their compensation for their land that had been acquired. Crude concrete markers about the size and shape of gravestones appeared in the area where the new waste dump was about to appear.

Most families were deeply offended by the pitiful compensation offered by UCIL and refused to accept. Instead they made a set of demands, which were ignored. On January 27, 1996 UCIL, backed by district police and paramilitary units, entered the village and began the process of bulldozing their houses. Thirty houses were destroyed, fields were flattened, sacred 'sarnas' (groves of worship) and graveyards were levelled out.

The demands were as follows:

1. Bringing radioactive wastes into their area and dumping them in their villages should stop forthwith.
2. International norms and standards for storing radioactive waste that has already been dumped should be meticulously observed
3. All the villages around the already existing tailings ponds should be resettled at a safe distance and complete rehabilitation should be undertaken.
4. All the families whose active working members have either died or been incapacitated and the families which have children with serious physical and/or mental disabilities should be adequately compensated and the company should take the responsibility for their treatment.
5. The company should set up a public dispensary manned by medical personnel qualified to treat radiation related diseases, and its functioning should be under the direction of the traditional tribal leadership of the Majhi/Pargana. In response, within three days Santhal people mobilised a large number of people from nearby villages in support of the people of Chatijkocho. Women lay down in front of bulldozers; the local press broadcast the action to national and international human rights groups. As a result the demolition was temporarily suspended. The

villagers demanded that they be realistically compensated for their lands and rehabilitated to a habitable area.

People approached the Ranchi Bench of the Bihar High Court in mid-1996 seeking to stop UCIL from destroying their villages. The court suggested the villagers' dialogue with the mining management. The negotiations was fruitless, the tribal people ended up walking out.

Work to construct tailings dam was quietly recommenced in February 1997. On 25th February, tribal people blocked the construction work. In response, UCIL deployed police and the arrests began. Repressive measures were adopted to silence the tribal people. "In 1997, my brother Jairam also raised his voice along with other Santhals. He was brutally beaten by the police with rifle butts on the buttocks. There was bleeding and since then he has been suffering," said Dumka Murmu, General Secretary, JOAR. Broader support from surrounding villages and other Jharkhandis struggling group started pouring in. On March 9, a Parganas<sup>5</sup> of all the Santhal Tribal people arrived in support and UCIL were again forced into negotiations. UCIL made lot of promises, including improved radiation monitoring, realistic cash payments, employment for the displaced males and improved healthcare for radiation-affected people.

JOAR's movement forced negotiations and achieved com-

pensation from the powerful and secretive nuclear operation. The movement swelled since 1997 and became known around the country.

'The most mobile element in the tailings is Radon-222, a heavy radioactive gas with a half-life of 3.8 days. (With a steady 10km per hour wind, the gas could travel nearly 1000 km before half has decayed.) This gas presents a major threat to mine workers and nearby residents alike; it emits alpha radiation as it decays into radioactive bismuth, polonium and lead. Inhaling or ingesting radon (it is water soluble) poses a unique health hazard as the body becomes exposed to the chemical properties of the various decay products as well as their radioactivity, according to the paper titled 'Radiological pollution from uranium mines at Jaduguda' submitted by Xavier Dias at a 'Conference on Health Environment' organised by Centre for Science Environment in New Delhi 6th-9th July 1998.

As part of protests against the construction of the third tailings dam, JOAR demanded that the State of Bihar conduct its own survey on the health impacts of the mine. The environment committee of the Bihar Vidhan Parishad (Legislative Council) spent two years on the study, and filed its last report in December 1998. A medical team sampled water around the tailings dams and examined 54 people suspected of suffering from radiation-related illness.

The report confirmed what

the people already knew; that UCIL was dumping nuclear waste from other sites into the tailings dams, that uranium was leaching into the river, and that people were living too close to the mine. The team expressed concern at the fact that the tails dams were unfenced, that waste water was returning to the treatment plant in open drains, and that there were no warning signs around the plant. But overall the findings were ambivalent. KK Beri, then UCIL Technical Director, had written to the deputy commissioner's office informing him that the 54 people identified by the medical team were not suffering from diseases caused by uranium radioactivity, and they are dismissed in the final report: "As regards the cause-effect relationship of these diseases with radioactivity, we can neither establish nor exclude the same at this stage." The committee recommended a complete health survey to be undertaken. A medical team dominated by doctors from BARC and the UCIL chief medical officer duly carried this out. It found, perhaps not surprisingly, that the diseases found in Jadugoda were not related to radiation, blaming instead poor nutrition, malaria, alcoholism and genetic abnormalities.

Contrary to these findings "There is no radiation or any related health problems in Jadugoda and its surrounding areas", says J.L Bhasin, former chairperson and Managing Director of UCIL. The 'no radiation' argument, when pushed,

becomes 'no radiation beyond permitted international limits'. Mine management also denies dumping nuclear waste at Jadugoda, other than "a small amount of raffinate cake" from Hyderabad. It denies any health effects from elevated levels of radiation and insists it holds that its workforce is healthy.

The environment committee however made a recommendation that echoed one of the key demands of JOAR: that people be evacuated to a distance of 5 km from the mines and tailing ponds. UCIL and the government alike ignored this recommendation, like much of the bulk of the report.

This is the standard practice for the nuclear industry worldwide. The Indian nuclear industry is able to hide behind an oppressive 'Official Secrets Act' and is not directly accountable to the people for its actions. All nuclear research including health physics and health test of affected populations are hidden by this Act.

All this workers gradually got to know. This led them to protest. On account of unrest and discontent among the workforce UCIL looked towards private labour companies to hire contract labourers, who were dismissed as soon as they showed any signs of illness. Regular employees started to wear radiation-measuring devices inside the plant and underground, but they are never told what doses are recorded, and if they fell sick they were treated at the plant hospital. Their medical records were kept

a closely guarded secret.

JOAR continued to be busy with court proceedings; building up the campaign, labour unrest and the movement became stronger than ever. However, Xavier Dias in an interview to Scott Ludlam in November 1999, said, "From here I think, UCIL is either going to sabotage or break the movement by buying up the leadership, or have some clandestine operation like what normal governments do. These are the only two options available."

In 2002, JOAR membership had touched 3000 but after that it took a downward trend. It had formed village committees under the leadership Manjis (headman). JOAR had also roped in Haripada Pargana as one of its front ranking members. Since its inception JOAR had collaborated with other organisations such as BIRSA, Anumukti etc. to undertake health surveys, legal action, awareness building programmes, political lobbying and direct action in defence of the tribals.

"JOAR's struggle had definitely inspired the movement at Banduhurung<sup>6</sup> against UCIL's open cast mining. The UCIL plans to start a uranium processing and power plant at Turamdih, close to Banduhurung. JOAR and media, especially national newspapers and magazines played an exemplary role in making people aware about uranium mines and its radioactive effect. Rana S Gautam, of the Times of India's wrote series of stories on

Jadugoda. It had been successful in making people aware about radiation though at a quite slower pace," said Shamit Carr.

Two years later the UCIL succeeded in dividing the movement. JOAR split on 24th February 2004, when UCIL organised a 'Jan Sunwayi' (Public Hearing) at Banduhurung to garner support of the people in favour of open cast mining in Banduhurung "JOAR supported UCIL and BIRSA opposed UCIL" said Shamit Carr. Prior to this public hearing a leader of JOAR went around the villages telling the villagers that they should support UCIL, which would get them the jobs. Paradoxically, JOAR is a major partner in the MUAP (Movement Against Uranium Project) raising voice against UCIL projects in Nalgonda (Andhra Pradesh) and Domiasiat (Meghalaya).

"Seventeen tribal organisations have formed a co-ordination committee to oppose uranium open cast mining in Banduhurung. The co-ordination committee had distanced itself from JOAR, as it had supported Uranium Corporation of India Limited (UCIL) to begin its operations in Banduhurung." Alleged, "Rich dividends were paid by UCIL to Ghanshyam Biruli, President, JOAR for total 'sell out'. UCIL gave him money to get his house refurbished in Jadugoda. UCIL also paid him money to get a pond dug nearby his house. The president is a full time activist. But where does he get money for leading a lavish lifestyle" said Surai Hansda<sup>7</sup>,

Chief Functionary, Adivasi Moolvasi Bhumi Suraksha Samiti (AMBSS) Surai Hansda decided to launch AMBSS when they saw JOAR work in support of open cast mining in Banduhurung. AMBSS upholds tribal exclusive rights to their traditional lands and their resources. It emphasizes that where the lands and resources of the tribals have been taken away by UCIL without their free and informed consent, it should provide jobs. It objects to and protests against UCIL not keeping its promise<sup>8</sup>. AMBSS has 700 members. Most of them are men; they plan to induct women in their struggle. Surai thinks, "Women had been at the forefront of the tribal struggles. Without their participation, it's quite difficult to organise the movement." The organisation generates its own resources. Whenever there are programmes, people donate generously. During their mobilisation drive against globalisation, they saw that youths wanted to disengage off the land but elders oppose. They are not interested in any reunion with JOAR. Their potential allies in the struggle are the affected community, villagers and BIRSA. BIRSA has supported and assisted the movement through legal advice, arranging for documents, dissemination of information and financial support. UCIL tried to divide this organisation, but in vain. Sukumar Murmu, Chairperson, Talsa village Assembly said, "Ghanshyam Biruli is acting like a broker of UCIL. Suresh Purti of village Barahata paid Ghanshyam Biruli

Rs. 75,000 for getting him a job. But till date he has not got a job and Rs. 23,000 was returned back to him. Manki Gunduwara of Barahata village also paid Rs.75, 000 and Dusrath Jojo gave Ghanshyam Biruli Rs. 50,000 for job in UCIL."

As UCIL is going on a faster pace for operationalising open cast mining in Banduhurung so 17- organisation co-ordination committee is intensifying its struggle. They are less dependent on external facilitator. They encourage participation and transparency and make an effort to generate their own resources. Growing intensity and broader base of the struggle in Banduhurung, will force UCIL to soften its stand. UCIL has been assiduously trying to brand the struggle as anti-national and anti- development by roping in JOAR but the people affected by the project see it as a genuine struggle and therefore take it seriously. Some of the senior functionaries of JOAR are silent and slowly distancing from its activities. Of all the mining in Jharkhand nuclear mining at Jadugoda is the most lethal.

It is difficult to say how this conflict will unfold and what will be its consequences for the people. The problem is difficult-should one accept the Nuclear programme and then struggle over implementation of appropriate employment policy and safety measures or should the struggle focus on questioning nuclearisation as such?

On the one hand, India is the first Asian country to devel-

op a nuclear programme. The process of becoming nuclear began before the devastation of Hiroshima and Nagasaki, and in spite of the chill of the Cold War. As early as 1944, Dr Homi J Bhabha played a decisive role in Indian nuclear affairs. He wrote to the government asking for money to set up an institute for studying the subject, so that "when nuclear energy has been successfully applied for power production in, say a couple of decades from now, India will not have to look abroad for its experts, but will find them ready at hand". India's first pacifist Prime Minister, Jawaharlal Nehru wrote to his defence minister shortly after independence that not only did the "future belong to those who produce atomic energy", but "Defence (was) intimately connected with this."

In 1948, a year after independence the Indian Atomic Energy Commission (AEC) was set up. It would work under the direct control of the prime minister. This was the beginning of the Nuclear Industry. It began with meagre resources. An early geological survey of India had revealed a vast thorium resource but few uranium deposits. The earliest resource estimate amounted to only 15,000 tonnes. For an independent nuclear program to be 'sustainable' with this meagre resource, an ambitious it was decided that the first generation of reactors would be Canadian-designed CANDU reactors, which run on natural (i.e. non-enriched) uranium and

use 'heavy' water as the moderator. The plutonium thus generated would provide fuel for a second generation of fast-breeder reactors, which would provide yet more plutonium to mix with the abundant thorium resource and theoretically supply free energy forever.

In August 1954, six years later the Department of Atomic Energy (DAE) was set up. The prime minister operates through this Commission and the Department. The AEC has overall control of all activities relating to commercial use of nuclear energy. It formulates policies for the DAE, prepares its budget, and ensures the policies are implemented. It also has the ultimate responsibility for safety. For insuring this it works through the AERB. [The President of India constituted the Atomic Energy Regulatory Board (AERB) on November 15, 1983 by exercising the powers conferred by Section 27 of the Atomic Energy Act, 1962 (33 of 1962) to carry out certain regulatory and safety functions under the Act. The regulatory authority of AERB is derived from the rules and notifications promulgated under the Atomic Energy Act, 1962 and the Environmental (Protection) Act, 1986.]

The mission of the Board is to ensure that the use of ionising radiation and nuclear energy in India does not cause undue risk to health and the environment. Currently, the Board consists of a full-time Chairman, an ex-officio Member, three part-time

Members and a Secretary.

The Department of Atomic Energy (DAE) was and has full executive powers to implement the policies of the AEC. It supports and regulates the activities of two main research centres and the other research institutions; the Nuclear Power Corporation; the heavy water projects; and fuel-chain undertakings.

The AERB, which is responsible to the AEC, formulates safety standards and regulations. It approves the commissioning of nuclear stations on the basis of its own safety assessments and on information provided by the Safety Review Committee of the DAE. The AERB, which in an ideal world would perhaps be an independent body reporting directly to parliament, has no power to truly regulate the industry and reports to the AEC behind closed doors. The DAE maintains a monopoly on research, suppressing heretical views as efficiently as any medieval inquisition.

Uranium mines in Jadugoda are the foundation of the Indian nuclear fuel chain. It is wholly State monopoly. The DAE owns UCIL and its operations are covered under Atomic Energy Act, which makes accurate information about the mine somewhat tortuous to obtain. There is no requirement for public participation at any stage of the process of sighting, designing or building nuclear facilities. In an article for the Bulletin of the Atomic Scientists (1999), T.S. Gopi Rethinaraj writes: "The depart-

ment [of atomic energy] has happily exploited the ignorance of India's judiciary and political establishment on nuclear issues. In the past, it has even used the Atomic Energy Act to prevent nuclear plant workers from accessing their own health records. While nuclear establishments everywhere have been notorious for suppressing information, nowhere is there an equivalent of India's Atomic Energy Act in operation. Over the years, in the comfort of secrecy, India's nuclear establishment has grown into a monolithic and autocratic entity that sets the nuclear agenda of the country and yet remains virtually unaccountable for its actions."

On the other hand the struggles in the Jharkhand have protested against expropriation of Natural Resources<sup>9</sup> for over three hundred years. The modern composition of Jharkhand was developed in reaction against British colonialism despite the fact that conducive integrated economic structure based on geographic features, backward agriculture and forests, and integral cultural heritage, unique inter-tribal relations etc., were present for this. Tensions were sparked off in the society due to new polarisations caused by the growing pressures on land by the state at the time of colonial subjugation and the consequent transfer of the land constantly into the hands of usurers as well as due to other external pressures. As a result, revolts in this region took the form of tradition and culture developed under resistance. In

the initial period these revolts were of religious and retrograde form, which is a special feature of peasant revolts. But progressively the development of these struggles took place in the form of looking for a new system against the colonial fetters, zamindari and usury. The Munda resistance from 1789 to 1820, the Kol revolt of 1830-31, the Bhumij revolt of 1834, the Santhal revolt of 1855-56, the Sepoy Mutiny of 1856-57, the upsurge under the leadership of Birsa Munda during 1895-1901 etc., kept the entire region agitated with a series of revolts spanning over more than a century. If the people faced the repression together, they also enjoyed the fruits of victory together. The laws that were made under compulsion were the achievements of these struggles. The Chotanagpur-Santhal Parganas Tenants Act (1872, 1886, 1903, 1908) that put a check on land sales in Chotanagpur and Santhal Parganas etc., were enacted under the pressure of these struggles. The spontaneous struggles in Jharkhand have laid the foundation for a tradition of resistance.

In Conclusion IFTU, which called for a strike in Rakha Copper mines in 1979, demanded only 'radiation allowances' for the workers exposed to it. But neither any political party nor mass organisations raised the issue of 'uranium radiation' affecting the mining community or those living in the vicinity of the tailing ponds. However, radiation is a serious issue which cannot be a part of any social

organisation or project-driven NGOs. It was a serious political issue. Uranium, which had been used for manufacturing had killed thousands in Nagasaki and Hiroshima. In Jaduguda it is daily killing people those living near the mines.

In 1989, when JOAR was taking its roots, the organisations which came to forward to take up the issue, followed principles of democratic centralism. The democratic centralism has two parts - ideological centralism and organisational centralism. The ideological centralism grows out of the struggle to develop one process of thinking, uniformity of thinking, oneness in approach and singleness of purpose. Organisational centralism is built up on the basis of the ideological centralism, which gives the real structural shape to the principle of democratic centralism. In the movement against radiation in the post-1989 era, there was convergence of political movements such as AJSU, trade union struggles like Singhbhumi Ekta, traditional Manji Pargana System, NGOs, professionals like journalists, academicians, legal practitioners, scientists, film-makers etc. The convergence took place at the time when there was a paradigm shift in the movement, as it started drifting away from the principles of democratic centralism.

However, in the struggle there were networking among different players, who cut out their role. To take ahead the movement, the activities were research, lobbying, mobilisation, discussion, strategy planning,

awareness building, information dissemination, finance etc. The support groups had convergence of interests but had no uniformity in approach. Majority of those forming the support group came from middle class background whose desire was to strengthen the movement but had not declassified them. An amateurish videographer turned filmmaker whose documentary had been successful in bringing the 'radiation issue' at the fore in national and international arena. Though he was politically aware but had no ideological grounding. Quite overenthusiastic, he started interfering in the day-to-day activities of JOAR. JOAR leadership had pinned their hopes on support group, for resources and skills too. But it was not quite competent enough to tackle those who mobilised resources and used their skills for building the struggle.

#### Notes:

1. Socially, Jadugoda and nearby villages, which is inside the radiation zone may be divided into two broad swaths as the dominant being the Santhals, the largest tribe in Jharkhand: The Austro-Asiatic tribes, especially Santhal and Ho live in Jadugoda and nearby villages. Most of these tribals are peasants but some of them work as miners in UCIL mills and plants. 95% of underground miners are tribals. In the top management or first grade posts of UCIL no tribals are employed, while 100% of the contract workers are tribals. The major occupation of the villagers is agriculture and animal

husbandry. In a study conducted by Anumukti, a journal devoted to non-nuclear, it is stated that, as high as 55.3% of the household in the villages have at least having regular employment with the UCIL either as casual mill workers. The Mixed category [Comprises a broader category, mostly Sadans, dalits and other castes work in the UCIL mills and mines as workers and wage labourers]. The Santhals, a dominant tribe in Jadugoda and nearby villages have a century old, traditional system of local self-governance known as Manjhi-Pargana System (MPS) at the village and intermediate level responsible for the overall development of the Santhal communities.

2. Uranium is not the only radioactive element found in the ore. There are a dozen or so others known as uranium decay products; among them are, Thorium-230, Radium-226, and Radon-222. Each of these presents a unique hazard to people and other living creatures coming into contact with them. These wastes are radioactive for around 250,000 years; in human terms this might as well be forever. In addition to the radiological hazard, uranium ores commonly contain varying concentrations of zinc, lead, manganese, cadmium and arsenic. None of these other elements are removed during processing; all remain in the tailings along with residues of the process chemicals used to extract the uranium.

3. It was an early demand of

theirs that this practice be stopped, which UCIL eventually agreed to.

4. The World Uranium Hearing (WUH) took place from 13-19 September 1992 in Salzburg, Austria. Founded by Claus Biegert in December and it is registered as a non-profit organisation in Munich, Germany. It was an unprecedented gathering of indigenous people affected by the nuclear industry, with focus on uranium mining. In the Hearing, about 80 indigenous and 30 non-Indigenous people, representing 25 indigenous nations and 27 countries, made testimonies. All continents were represented. It was a massive indictment against the nuclear industry for contaminating water and land and for disregard of human rights.

The World Uranium was Based on testimonies and experiences from around the world, Based on the evidence of damage to indigenous people, culture, economy, land, water, and air, Based on indigenous people's respect for spiritual values, beliefs, and practices, and their opposition to the destruction of their existence. The 'Council of Jurists' consisted of scholars with commitment and expertise in human rights and environmental law at the international and national levels, as well as lawyers who have worked to promote sustainable develop-

ment to protect the interest of Indigenous peoples, and to protect the public from nuclear risks. A six-page leaflet suitable for mailings was available in German. Also helping to promote the WUH was a video, "The Death that Creeps from the Earth" (in English, German and Russian), and the first European Group Show of the Atomic Photographers Guild. This photo exhibition remained in Europe until the end of 1993. In the Hearing there were testimonies from around the world by the peoples of the mountains, the forests, the deserts and the oceans, who suffer daily from uranium mining, nuclear weapons testing, nuclear power generation and radioactive waste. These testimonies showed the peoples' intimate relationship with the Earth and the destruction of the natural environment they depended upon, culturally, spiritually and materially. It became clear that each phase of the nuclear process - civilian or military - has a deadly impact on all forms of life. Delegates heard testimonies from around the world by the peoples of the mountains, the forests, the deserts and the oceans, who suffer daily from uranium mining, nuclear weapons testing, nuclear power generation and radioactive waste. These testimonies showed the peoples' intimate relationship with the Earth and the destruction of the natural environment they depend upon, culturally, spiritually and materially. It became clear that each phase of the

nuclear process - civilian or military - has a deadly impact on all forms of life. It was realised that the inhabitants of this planet, responsible for the generations to come, have to live with consequences of our radioactive heritage from now on. Together, the delegates stood and said: No more exploitation of lands and peoples by uranium mining, nuclear power generation, nuclear testing, and radioactive waste dumping; Clean up and restore all homelands; End the secrecy and fully disclose all information about the nuclear industry and its dangers; Provide full and fair compensation for damage to: peoples, families and communities, cultures and economies, homelands, water, air, and all living things; Provide independent and objective monitoring of human health and the well being of all living things affected by the nuclear chain. In view of the unity of humanity and the world, they made an appeal on behalf of future generations to use sustainable, renewable, and life-enhancing energy alternatives.

5. Historically, the Manjhi Pargana system started losing its authority with the advent of the British colonial power. Even in Jadugoda and its villages, the Manjhi Pargana System became redundant. This process continued after the independence. Various legislations made the system ineffective and dysfunctional. The 'Movement for

Tribal self-rule' launched in 1996 resulted in the enactment of Provisions of Panchayat (extended to the Scheduled Areas) Act 1996 (PESA-96) by the Parliament. Manjhi Pargana System, which had become redundant in Jadugoda, he said, "When we were dispossessed from our land by UCIL, the Pargana did not even stand against it and unite his tribal brethren against it. He miserably failed in performing his duty. In Santhal history, you would see that Parganas have stood along with his tribal brethren like an unfaltering rock whenever the 'intruders' attempted to dispossess of their land. Jadugoda, Bhatin and Narwapahar were built on Santhali land. Bihar Government leased this land to UCIL. But, according to SNT, Chotanagpur Tenancy Act, Fifth Schedule Area Act and Traditional Self-rule system, the land belongs to Santhal community. Bihar Government violated all the acts and flouted all the norms in the air. In the name of 'national development' adivasis dispossessed of their land did not receive any compensation. As a Pargana, Haripada failed to perform, as he was not aware of the acts and his role. First, the land was acquired by Atomic Energy Commission (AEC), directly under Prime Minister,

and later on transferred it to UCIL. Traditional self-ruling system was non-operational due to direct intervention of the Government."

The fundamental and the basic tenet of the Act empowered the traditional village councils under Manjhi Pargana System to govern themselves on their own in accordance with their traditions and customs in all matters pertaining to their own socio-political, economic and cultural development. The Jharkhand Government ratified this Act in 2001. The PESA-96 provides adivasis for self-governance and now they have legal and Constitutional power to organise themselves, plan, implement, review and monitor their own programmes of development. In Jaduguda and nearby villages, as Dumka Murmu, General Secretary, Jharkhandis Organisation Against Radiation (JOAR) said, "Being a part of the 'Movement for tribal self-rule', it was our historical obligation to revive the Manjhi Pargana System in our areas of operation. Manjhi were headman of the village and Pargana had control over them. A Pargana has a control over 60 villages. Identity cards were issued by JOAR to the Manjhis and Parganas. It was by strengthening of Manjhi Pargana System, that the advantage regarding mass consciousness on radiation issues surfaced and spread."

6. Banduhurung is 25 kms from Jaduguda and 10 Kms from Jamshedpur.
7. He mobilised people in support of JOAR's direct action at Chatjkocho, in 1996 and 1997, when third tailing pond was constructed, said, "
8. In 1984, when mining started in Turamdih, the houses of 375 families were demolished and land acquired by UCIL but they have not got any job. UCIL's compensation followed the 1970 package. According to 1970 package, if an acre is acquired the UCIL pays a compensation of Rs. 12,000, Rs.15,000 and Rs.18,000 based on the fertility of the land.
9. Of 45 major minerals such as coal, iron ore, magnetite, manganese, bauxite, graphite, limestone, dolomite, uranium etc are found in tribal areas contributing some 56% of the national total mineral earnings in terms of value. Of the 4,175 working mines reported by the Indian Bureau of Mines in 1991-92, approximately 3500 could be assumed to be in the tribal areas. Income to the government from forests rose from Rs.5.6 million in 1969-70 to more than Rs.13 billions in the 1970s. The bulk of the nation's productive wealth

lay in the tribal territories. Yet the tribals have been driven out, marginalised and robbed of dignity by the very process of 'national development'.

Jharkhand is estimated to have more than a third of India's total mineral wealth. It has more than a third of the coal deposits in the country and the only region for the mining of coking coal. The state has half of the country's reserves of mica, 23 percent of iron ore and 34 percent of copper reserves. Fireclay, manganese ore, uranium, bauxite, kyanite, china clay etc. are also abundantly found in Jharkhand. Large-scale mining of major minerals started in Jharkhand as early as 1890. Coal mining in Jharia began its operations in 1886, iron ore mining started at Gurumahisini in 1911, Badampahar and Sulaipet in 1923, Noamundi in 1926, bauxite mining in Palamau and Lohardaga in 1940, mica mines in Hazaribagh and Koderma in 1930. Presently there are about 398 working mines in the state.

**\* Tarun Kanti Bose is a veteran development journalist who has done seminal works on various social issues including radiation hazards related to uranium mining.**

[Source:  
<http://jadugoda.jharkhand.org.in/2009/05/adivasi-live-under-nuclear-terror-in.html>]



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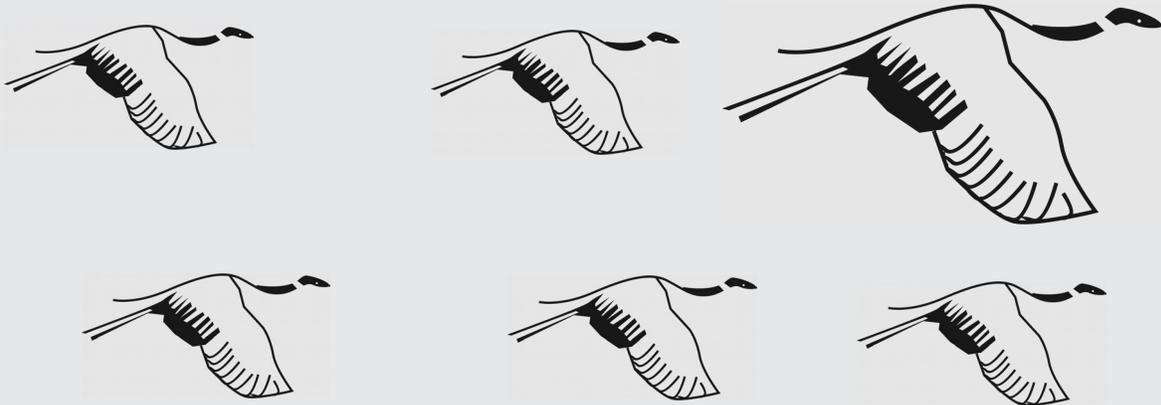
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