

In this context, it may be pertinent to recall that in a recent interview with the Journal "Science", the Prime Minister had questioned the bona fides of the NGOs and activists, who had raised doubts about the motives of the government decisions on sensitive issues, such as genetically modified (GM) foods and nuclear energy. Reacting to the Prime Minister's petulant remarks, a number of eminent citizens sent a fitting rejoinder, which is reproduced below:

March 04, 2012

YOUR COMMENTS ON THE OPPOSITION TO GM CROPS AND NUCLEAR POWER PLANTS

Dear Mr. Prime Minister,

There has been wide coverage of your interview with the journal 'Science', on February 24, 2012 concerning the opposition to nuclear power plants and GM crops in India. You choose to resurrect the old bogeyman of a 'foreign-hand', this time pointing to external funding of NGOs to oppose Indian development, as if they are some sort of a 5th columnist operating to undermine the nation's interest. This we feel, is a highly inappropriate misrepresentation of facts. The misdemeanours of these NGOs, if any, may well be only minor infringements of the letter of a restrictive law that enables government to harass them as is now being undertaken. In reality, what we are all fighting against is indeed a foreign-hand operating at the behest of and from within your government, supported by Indian and foreign commercial entities, to corporatise Indian agriculture & farming practices and the energy sector, without in-depth and impartial analyses which prioritise the country's security and safety. If this is their sin, it is ours too. Your remarks, in essence, indict every signatory to this letter. Our individual and collective "unthinking state", an unlikely charge as that is, does not unduly perturb us; on the other hand, your charge that all those who voice dissent of your government's policy on GM crops and nuclear power do not belong to the "thinking segment" of society is an indictment of a large section of our citizenry. It betrays an inappropriate distinction between "thinkers" and "non-thinkers" solely on the basis of agreement or disagreement with government policy. Surely, this cannot be. Informed dissent and a healthy response to it by our government through trusted dialogue are vital for a functioning democracy. We are not China. The absurdity of this position is therefore, self-evident and it absolutely requires us to make a measured and robust response through addressing the key issues surrounding GM crops and the nuclear power sector.

The prominently visible foreign hand of the US, in these two greatly important issues with ramifications for our country far into the future (and with regard to GM crops, irreversibly so), is squarely created and abetted by the UPA government. One indication of such collusion is the line-up of support your government has sought or received thus far, from ABLE (the Association of Biotechnology Led Enterprises), the Indo-US Knowledge Initiative on Agriculture, the Indo-US CEOs Forum, the Indo-US Business Council, etc., all of which expose the distinct foreign influence deliberately brought into these critical policy areas. Along with your investigations of the so-called anti-national misdeeds of the NGOs, why is your government not probing the influence peddled by these agencies and entities who are primarily furthering the interests of foreign governments and private multinational corporations? Or, is it that only those who support your policies are helping the nation, while those raising legitimate and scientifically-based dissent are all branded as traitors working against the national interest?

Furthermore, several important communications on key issues have been submitted to you in writing over the last two to three years, without even the courtesy of an acknowledgement from the PMO. We must assume from your remarks to the 'Science' journal that the evidence, which has hitherto been offered on the significant gaps in safety and liability surrounding both these technologies, by well informed and deeply concerned individuals and groups in the nation's interest, has not been seen by you, or else you would surely have taken cognisance of it.

In the attached Annexure, we have presented some key issues on both these technologies and their profound implications for our country. Based on this, we urge the UPA government to initiate a truly inclusive process of deliberations with all stake-holders in civil society to help formulate a rational public policy with regard to both the nuclear power sector and GM crops.

With Regards,

Sincerely Yours,

1. 

Justice VR Krishna Iyer, former Judge, Supreme Court of India

2. Dr.A.Gopalakrishnan, Former Chairman, Atomic Energy Regulatory Board
3. E.A.S.Sarma, Former Union Power Secretary, GOI
4. Admiral Vishnu Bhagwat, former Chief of Naval Staff, Mumbai
5. Dr.Pushpa Mitra Bhargava, Former Vice-Chairman, National Knowledge Commission
6. Praful Bidwai, Writer, Columnist and Researcher
7. Mr. J.M. Lyngdoh, Former Chief Election Commissioner
8. Medha Patkar, Convenor, National Alliance of People's Movements
9. Admiral L.Ramdas, Former Chief of Naval Staff and Magsaysay awardee, Alibag
10. Lalita Ramdas, former Board Chair Greenpeace International, Bhaimala, Alibag
11. Dr Vandana Shiva, Director, Research Foundation for Science, Technology and Ecology
12. Admiral R.H. Tahiliani (Retd.), Former Chief of Naval Staff & former Chairman Transparency International
13. Prof. Romila Thapar, Professor Emeritus, Jawaharlal Nehru University
14. Aruna Roy, Social activist, MKSS
15. Dr.V.S.Vijayan, Chairman, Sálim Ali Foundation; former Chairman, Kerala State Biodiversity Board; Thrissur
16. Aruna Rodrigues, Lead Petitioner GMO PIL in the Supreme Court
17. Prashant Bhushan, Advocate, Supreme Court

Cc Smt. Sonia Gandhi, Chairperson, United Progressive Alliance (UPA)

Cc J Jayalalithaa, the Hon'ble Chief Minister of Tamil Nadu

ANNEXURE

REASONS WHY THERE IS OPPOSITION TO GM CROPS AND NUCLEAR POWER PLANTS

Genetically Engineered (GE) Crops

- **Brief background:** GE crops were invented by the US; given their raison d'être of profit for the Industry by patent laws in that country and their commercialisation promoted at the behest of the White House to "*foster the biotech Industry*" led by Monsanto, the international market leader holding 90% of crop patents. No GM crop is approved 'as safe' by US regulatory agencies in the US when they are put to market (GM cotton, Soy and Cotton, all of which are animal feeds). The Industry has held sway; there is little regulatory oversight.
- **The KIA (Indo-US Knowledge Initiative in Agriculture) and the conflict of interest within government agencies and our public sector agri-institutions:** India is singled out for the commercialisation of GM crops by the US and Monsanto, an objective that *is actively facilitated by the* Indian regulators. This is well attested to in court documents. This conflict of interest found official expression in the KIA, which the UPA government sought fit to ink with the USA. The ICAR (the signatory partner for India), along with its affiliates, provided Monsanto with access to India's genetic resources (Monsanto was elected to its Board, a company that stands formally indicted for fraud, bribes, hounding farmers and some of the worst crimes against humanity). Though this agreement has since lapsed, formal public-private partnership agreements between the biotech Industry and our agri institutions fully supported by the Department of Biotechnology are accelerating this process. The official push for GM in Indian agriculture means that we are the only country extensively testing untested GM crops in open field trials in virtually all our food, ie our staples in grains, our vegetables, oilseeds and fruit with great risk of contamination. In the matter of brinjal, Monsanto stands accused by the NBA (National Biodiversity Authority) of pirating an Indian brinjal gene.
- **Bt brinjal and Monsanto's safety dossier:** Bt brinjal was self-attested by Monsanto for safety, clearly an approach that invalidates it. Subsequent appraisals of that dossier by scientists which included globally eminent GM scientists concluded that the dossier was gravely deficient, with many safety issues not addressed at all and which remain unresolved, yet the apex regulator, the GEAC approved it for commercialisation. Shri Jairam Ramesh our erstwhile Minister, MoEF, has himself, very quickly following on from your statement, clarified the basis of the moratorium imposed by him in an open statement, citing the need for independent and long term scientific studies
- **The PMO and the UPA are briefed by Industry sources and deeply conflicted Regulators.** On the 8 February 2010, two letters were addressed to the Prime Minister by first, 17 international and independent academic scientists and secondly, sent in a sign-on letter to the PM (by civil society spokesmen and prominent persons). Judging from the PM's comments to the 'Science' journal, we doubt whether he has indeed seen them, and yet, these letters are so important for their implications that we request the PM to kindly access them. They pertain to a letter written by Shri Prithviraj Chauhan in 2009, when he was MOS in the PMO to Dr A Ramadoss who had expressed his grave reservations on the safety of Bt brinjal. In his reply, Shri Prithviraj Chauhan said "*the various issues raised in your letter have been examined carefully and by applying the best scientific evidence available today—*". In short, he went on to fully support the safety testing regulations for GM crops and Bt brinjal in particular, pronouncing Bt brinjal comprehensively safe. However, the source of Shri Chauhan's letter was the biotech industry;

sections of it were excerpted directly from promotional materials from the Industry, in particular ISAAA, (the International Service for the Acquisition of Agri-Biotech Applications), an organisation that at best can be described as pseudo-scientific, funded primarily by Monsanto and other biotechnology multinational companies and whose admitted purpose is to promote and facilitate the commercial introduction of GM crops in the developing world. Shri Prithviraj Chauhan is not a scientist; but when six National Academies of Sciences similarly encourage the government to vacate the moratorium on GM crops without first addressing safety concerns, through a document that is purportedly scientific, that instead turns out to be similar cut & paste exercise from Industry sources, then it becomes clear that public policy and the basis for it on GM crops is in tatters and our situation is precarious indeed. The information flowing to the Prime Minister is quite simply erroneous. It is pertinent to add that Monsanto and our regulators cannot uphold their extravagant claims of the success of Bt cotton since no attempt has been made by an unconscionable regulator to undertake a post market monitoring of it over the last eight years; but based on official statistics of cotton production, there is reason to believe that current yield is falling to pre-Bt cotton years and the reasons for this have been predicted from empirical evidence of the performance of Bt cotton in other countries, including resistance. We request the PM to kindly take note of this..

Finally, the evidence against GM crops is overwhelming in that it will not feed the world because it has failed to deliver on yield, traits and sustainability; that evidence is in favour of modern organics and small farmers in the developing world, if only our government will heed and redirect investment into these agro-ecological alternatives. This evidence comes from the UN, the FAO, the World Watch Institute and from the World Bank and UN-led IAASTD (International Assessment of Agricultural Knowledge, Science and Technology for Development). Twice peer-reviewed, this was a rigorous four-year process in which 400 scientists conducted the most comprehensive assessment of international agricultural technology and the path forward for agriculture for the next 50 years. India is a signatory to the IAASTD. The ability of agroecology to double food production within 10 years was recently re-affirmed by the U.N. Special Rapporteur on the Right to Food.

Nuclear Power Plants

The Prime Minister similarly criticised NGOs for protesting against the Kudankulam Nuclear Power Project and stalling development in India, placing the blame on NGOs receiving support from abroad. These are serious charges. We hope very much that there will be no misplaced zeal through a witch hunt of NGOs as a result of your statement. On the other hand, there is genuine and increasing public concern over the potential dangers of nuclear technology, particularly because the Indian nuclear establishment is directed by the government to expand their nuclear power activity on the basis of the import of untested reactors and in the absence of an independent & transparent nuclear safety regulator. No nuclear power plant is 100% safe and for the government to make such statements, as have been made only recently, stretch credulity and come across as glib assurances in the backdrop of especially the Fukushima (2011) accident, which has been particularly devastating and is fresh in people's minds. The accidents at Three Mile Island (1979) & Chernobyl (1986) also involved human error and weak nuclear safety regulation. Japan is a technologically savvy country. Despite this, they have not been able to respond till date to the sheer scale of the Fukushima disaster to contain its impacts. In India, with our dense population, our lack of management skills, the unilateral decision-making at the highest political levels on the purchase of very complex and hitherto

untested nuclear reactors and technology systems without involving the national safety evaluation process, refusal to constitute a totally independent and transparent nuclear safety regulatory system in the country, and our singularly inefficient disaster mitigation abilities, etc. could altogether land us in a major nuclear disaster soon, if these deficiencies are not immediately corrected. Cost estimates of the Fukushima accident are currently placed at more than US\$16 billion and it is still rising. It will take decades to clean up Fukushima and the significant stretch of surrounding areas of radioactive contamination; and the clean up may never be complete, as evident from the Chernobyl experience where the Russians are setting up a sarcophagus to shield the stricken reactors from humanity and the environment.

- **Conflict of Interest:** Despite an assurance given by the Prime Minister's office on April 26, 2011 that "*Action taken on previous safety reviews will be put in the public domain*", neither the DAE nor NPCIL have complied till date, thereby reinforcing public concern about the safety of nuclear plants. NPCIL seems to make a mockery of the spirit of Article 19 of the Constitution that entitles every citizen, as a fundamental right, to be informed about the functioning of any public authority, to the extent that its acts of omission and commission affect individual life. AERB, which is required to oversee and regulate the activities of DAE and NPCIL, continues to be subordinate to DAE and the new regulatory authority bill introduced by DAE before Parliament, furthermore, does not ensure the independence of the regulator from the executive that controls it.
- **EIA (Environmental Impact Assessment) and secrecy:** At many of our nuclear sites, including Kudankulam, no truthful and comprehensive EIAs have been made and associated public hearings conducted as stipulated by law. Where representatives of the local population have prepared scientific reports to the best of their ability, on their own, on pertinent safety deficiencies of a nuclear plant, the DAE has ignored those reports and not responded to the concerns expressed. A typical example is the recent PMANE Expert Group's Report dated Feb. 12, 2012, which the Kudankulam protest groups prepared and submitted to the DAE. This report highlights serious questions about the safety of the Kudankulam site based on geotechnical and oceanographic considerations, backed by independent and scientific data and publications from academic and research institutions. Through all this, the AERB which must come forth and defend the safety of these plants, has maintained a stony silence, whereas, in any civilized country, it is the regulator's duty to defend what they have approved as safe. In India, it is because the AERB is a captive regulator who seeks permission of the DAE before they speak publicly on any issue.
- **Safety Issues:** Let us be clear that nuclear power, like most other power technologies, is not 100% safe and can never be. But, given that the downside risk of a nuclear accident can be immeasurable and the empirical evidence from the past three core meltdowns the world has witnessed reinforces such a possibility, how safe it can be will depend on the integrity of our regulators and our leaders who on the other hand are constantly manipulating the system, including the safety regulator. Our government has not yet realised that there is a strong positive correlation between the transparency of a safety regulator and the degree of eventual safety obtained. While the public is kept entirely in the dark on how safety is assured, the Prime Minister personally continues to endorse the relentless claims of the DAE and NPCIL that nuclear power technology is 100% safe. On that basis there is little reason for comfort. The enactment of the current civil liability law by the government betrays the

PM's stance on safety claims. The government has gone out of its way to bow to the pressures and demands exerted by the US and western MNCs to ensure that the Civil Nuclear Liability Law shields reactor suppliers from accident liability in excess of the ridiculously low cap of Rs. 1500 crores (equivalent to US\$ 300 million). Evidently, foreign reactor suppliers themselves are not as confident as the PM seems to be of the safety of their own reactors and want the Indian tax payer to bear what could be an astronomical part of the liability in case of a nuclear accident. The latest estimate of the Fukushima liability has touched US\$16 billion, compared to the cap of US\$300 million imposed by the civil nuclear liability law that the Indian government has enacted. Furthermore, yielding further to MNCs' pressures, the government has framed the rules under the liability law, exceeding the limits set by the law itself, imposing limitations on the definition of "consequential" costs and the time span within which the Indian operator can prefer accident claims against reactor suppliers. The easy terms that the Indian government has agreed to in this matter are truly a national betrayal; a constitutional aberration in letter and spirit.

As far as Kudankulam – Units 1 & 2 are concerned, the sketchy EIA report completed several years ago does not contain a comprehensive risk analysis, estimation of the probabilities of core-meltdown or major radioactive releases, the factoring in of potential human errors, or a proper site evaluation from the geotechnical & oceanography points of view. We believe not even a cursory examination of such issues was done when the site was finalised, or thereafter. Even if NPCIL claims that such an analysis has been carried out, they have not placed it in the public domain. When DAE & NPCIL choose to function in a shroud of secrecy with the implicit approval of the Prime Minister, it hardly seems fair or prudent on the part of the government to demand that the people who are going to be directly affected should refrain from raising their concerns. Why should this be? If the government has decided to investigate NGOs who have allegedly received foreign funding, it is appropriate and even more necessary to investigate thoroughly, the circumstances under which unusual accommodation with western MNCs has been made by the same government.

- **Contracts, procedural flaws:** We have reason to believe that established procedures for awarding contracts to MNCs for the supply of reactors and fuel to Jaitapur, Kovvada and other "nuclear parks" are being flouted under a cloak of secrecy. We understand that the AERB, which is subordinate ultimately to the PMO, through the AEC, had no say in these purchase decisions and they were never asked to evaluate the safety of these reactors. These are serious matters which require to be scrutinised.
- **Sources of power for India and the German example:** The German government, heeding the lessons of Fukushima and a citizenry that demanded the required response, has already decided to totally exit nuclear power. With a current share of nuclear energy of 26%, Germany will move to a nuclear share of zero in ten years, substituting instead renewables like wind, PV and solar thermal. India's share of nuclear by contrast is currently 2.5%, and may rise to a maximum of around 7% or 64,000 MW by 2032. The contrast with Germany between our nature-endowed potential for renewables excluding big hydro, and of course nuclear, is even greater. A further insight into the energy equation demonstrates that we are one of the least efficient producers and users of electricity. On one dimension alone ie T&D losses, if we move to limit these to 10% in the next ten years (which is still higher than South Korea and the developed countries, where it is about 5%), we will save over 150,000 MW of power, completely dwarfing the meagre 64,000 MW that nuclear will produce in aggregate. The key question is

why has our government not produced a comprehensive White Paper on India's Energy Policy, including Nuclear Power? The blame for this rests entirely at the Prime Minister's doorstep, because he is not only the PM, but also the responsible Cabinet Minister for Atomic Energy. But, with the serious collusions taking place in this sector between the government, foreign & Indian corporate entities, a handful of bought-out senior nuclear scientists & bureaucrats, and others, the Prime Minister finds it convenient NOT to have a nuclear power policy on paper, but run this sector to suit everyone's whims and fancies. By acceding to importing reactors and fuel on such a large scale from France and other countries, has the government not jeopardised India's national, and especially energy, security? Which NGO will the PM point a finger at for this unpardonable lapse? Would the Prime Minister consider initiating a thorough investigation of the omissions and commissions of officials in the PMO, the Chairmen & Members of the Atomic Energy Commissions and the corporate business federations in India and their foreign collaborators and others, during the 2005-2011, period when feverish in-camera proceedings were taken up by the UPA governments on the Indo-US Nuclear Deal and its implementation?
