Death Dealers- Nuclear Power Programmes- outsource Gulf Stream to kill millions of Indian Infants

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Summary
The nuclear disasters of Windscale/Sellafield as reported by Greenpeace are correlated with Indian Infant Mortality during those fateful years-1971to 1978 and 1983 to 1984 and it is found that like the atmospheric weapons tests and Chernobyl, they have taken away the lives of millions of Indian infants. Does dose as a concept of internal radioactivity have any meaning left for human rights violations by the meanest?

Evidence from narratives of historical discharges
The peak of radioactivity releases from atmospheric nuclear weapons tests coincides with the peak of Annual Infant Mortality of India during the test years (See Table 137 & Figures 137 & IMIANT below) and the correlation with UNSCEAR dose is logarithmic and extremely significant (r=0.696,p=3.5E-9). This quality of correlation is also true of the Chernobyl accident (Figure IIMNA4589). The peak annual radioactive discharges from Sellafield and the peak annual infant mortalities in India occur synchronously as brought out here in my analysis of extracts from two reports: May J. The Greenpeace Book of the Nuclear Age (1989) and Martiniussen E. 2003. Report No. 8. The Bellona Foundation. Not only this but the dose response(ICRP-UNSCEAR 2000) of India infant mortality is logarithmic and extremely significant(r= 0.883,p=2.48E-7) (Figure IIMNA4589). Of particular significance in the context of cell damages, also at the DNA level, is the finding below that in *percent terms*, annual mean total source point radiation discharges (using Becquerels) and the risk of annual India excess infant mortalities and stillbirths are the same (Chi-square Sum 8.2, p (Chi-square Sum) 0.9755 for 1971-89(Figure RTRD7189). Here a new dose concept called The Meanest or Annual Total Source Point Radiation -is developed and used. The nuclear age figures for the annual infant mortalities are confirmed by the values for the annual under 5 mortalities (Both over the pre-nuclear controls). See http://indiaimrandnucleartests.blogspot.com/ . There is abundant extremely significant evidence of the repair process in action as well. With 1971-89 total radioactivity strength of sources at Sellafield and Chernobyl simulated during 1911-1945, no correlation is found between infant mortality and radioactivity(ICRP-UNSCEAR 2000) during the pre-nuclear era. It is significant that the percent annual worldwide infant mortality as well as the percent annual India infant mortality both correlate highly to extremely significantly with the percent total radioactive discharge due to Sellafield and Chernobyl(r=0.64,p=0.003 and r= 0.807, p=2.93E-5 respectively). Further, % World Infant Mortality, % India Infant Mortality and Mean % Total Radiation Discharge due to Sellafield and Chernobyl all come from the same population as determined by the F- Test (See Table F-Test). In both cases the meanest dose is the cause, applying the precautionary principle, in view of a number of workers having found a correlation connecting cause and effect regarding infant mortality and radiation exposure in several countries. Including the strength of strontium 90(Sr90) in the liquid effluent of Sellafield brings out the resonance effect of strontium 90 on the peaks of the worldwide infant mortalities and of India's(Figure IRIM7189). Biphasic cell response is shown here to be a cell property rather than being unique to internal radioactive element contamination. Transgenerational echoes (evidence provided here for India infant mortality rate, World infant mortality rate, India Still birth Rate and Karnataka State infant mortality rate) lend further eloquent support to revise the pre DNA Radiation Protection Standards in the direction of ensuring safety to all life without delay, as the ECRR 2003 Recommendations do.

Figure 137: Resonance Response of India and World Infant Mortality Rates to Atmospheric Nuclear Weapons Test UNSCEAR 2000 Northern Hemisphere Average Annual Effective Ingestion and Inhalation Doses.

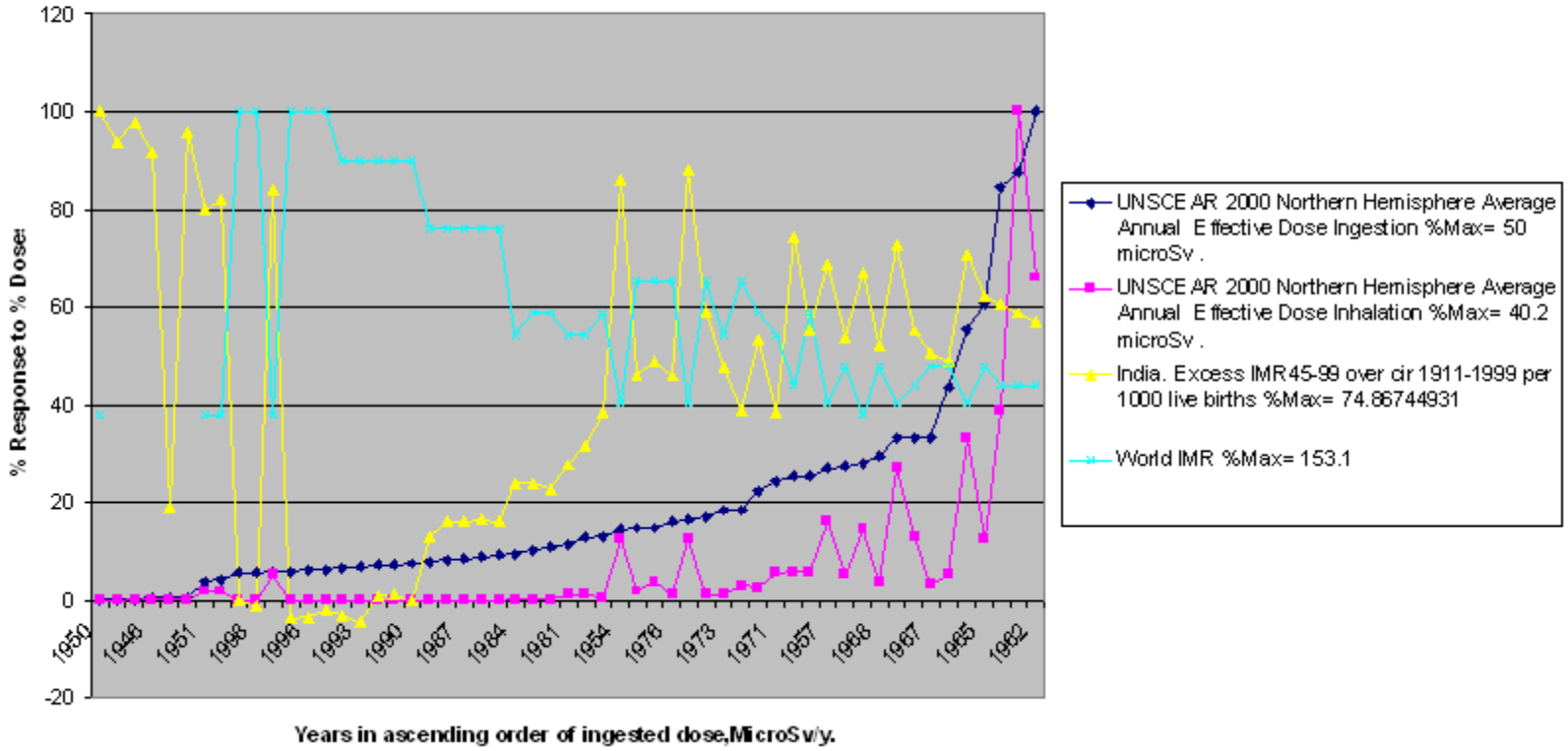


Table 137: Biphasic Response of India and World Infant Mortalities to Northern Hemisphere(NH)		Internal Radioactive Contamination: 1945-99.		
The Nuclear	UNSCEAR	UNSCEAR	India.	**World**
Age, Years.	2000	2000	Excess	**IMR**
	Average	Average	IMR45-99	%Max=
	Annual	Annual	over cir	153.1
	Effective	Effective	1911-1999	
	Dose	Dose	per 1000	
	Ingestion	Inhalation	live births	
	%Max=	%Max=	%Max=	
	50 microSv	40.2 microSv	74.867449	
	(NH).	(NH).	.	
1945	0.54	0.298507463	18.926513	
1946	0.42	0.21641791	91.611391	
1947	0.05	0.011442786	93.746093	
1948	0.62	0.273631841	95.855564	
1949	0.2	0.067164179	97.940102	
1950	0.028	0.0039801	100	37.81841933
1951	3.8	1.791044776	79.916459	37.81841933
1952	4.04	1.990049751	81.927949	37.81841933
1953	5.84	5	83.915665	37.81841933
1954	14.34	12.31343284	85.879885	40.16982364
1955	16.52	12.51243781	87.820889	40.16982364
1956	28	14.32835821	66.914612	37.81841933
1957	27	15.92039801	68.810002	40.16982364
1958	55.4	32.8358209	70.682989	40.16982364
1959	33.2	26.86567164	72.533838	40.16982364
1960	25.2	5.721393035	74.36281	43.95819726
1961	33.4	13.00995025	55.089707	43.95819726
1962	100	65.92039801	56.875698	43.95819726
1963	87.4	100	58.640578	43.95819726
1964	84.6	38.80597015	60.384599	43.95819726
1965	60.8	12.53731343	62.108005	47.74657087
1966	43.6	5.149253731	48.793138	47.74657087
1967	33.4	3.059701493	50.476044	47.74657087
1968	29.2	3.532338308	52.139059	47.74657087
1969	27.2	5.248756219	53.782416	47.74657087
1970	25.4	5.92039801	55.40635	58.78510777
1971	24.4	5.597014925	38.142969	54.01698236
1972	22.4	2.487562189	53.085679	58.78510777
1973	18.34	1.069651741	47.974237	54.01698236
1974	18.54	2.885572139	38.83719	65.51273677
1975	17.02	1.144278607	59.067108	65.51273677
1976	15.94	1.019900498	45.88659	65.51273677
1977	14.86	3.955223881	48.716526	65.51273677
1978	14.78	1.965174129	46.186025	65.51273677
1979	13.12	0.52238806	38.295295	58.78510777
1980	12.92	1.019900498	31.723012	54.01698236
1981	11.54	1.293532338	27.805074	54.01698236
1982	10.82	0.206467662	22.534601	58.78510777
1983	10.02	0.099502488	23.925956	58.78510777
1984	9.58	0.149253731	23.965171	54.01698236
1985	9.14	0.021641791	16.241109	76.02873939
1986	8.72	0.001492537	16.515153	76.02873939
1987	8.38	0.000746269	15.97191	76.02873939
1988	8.08	0	15.947264	76.02873939
1989	7.8	0	13.235733	76.02873939

Table continued on next page.

Table 137: Biphasic Response of India and World Infant Mortalities to Northern Hemisphere(NH) Internal Radioactive Contamination: 1945-99. (continued).				
The Nuclear	UNSCEAR	UNSCEAR	India.	**World**
Age, Years.	2000	2000	Excess	**IMR**
	Average	Average	IMR45-99	%Max=
	Annual	Annual	over cir	153.1
	Effective	Effective	1911-1999	
	Dose	Dose	per 1000	
	Ingestion	Inhalation	live births	
	%Max=	%Max=	%Max=	
	50 microSv	40.2 microSv	74.86744931	
	(NH).	(NH).		
1990	7.52	0	-0.176663132	89.74526453
1991	7.26	0	1.088442381	89.74526453
1992	7	0	1.002900561	89.74526453
1993	6.74	0	-4.440193733	89.74526453
1994	6.52	0	-3.219420183	89.74526453
1995	6.28	0	-2.013076008	100
1996	6.06	0	-3.492378577	100
1997	5.84	0	-3.650077467	100
1998	5.62	0	-1.150312172	100
1999	5.42	0	2.47E-13	100

A New Dose Concept

A New Dose Concept for the Black Box whose Input is Radioactive Strength of Source and Output is for example Percent Infant Mortality is proposed.

The Meanest:

The radioactive source strengths of Sellafield and Chernobyl are used to construct a new radiation dose measure called the Meanest. The objective is to be able to describe the detriment at the molecular level for internal radiation. It is the Annual % Total Radioactive Discharge Strength or simply %Total Radioactive Discharge. See Table SACREDM below:

Using the Meanest(Table SACREDM) as a measure of dose, a detailed nuclear discharge plot for Sellafield and Chernobyl is set against the excess annual infant mortality and annual still births for India in Figure NDSC: Note the coincidence of the peaks of India infant mortality with the discharge peaks. Also note how the still births reach their peak one to two years after the peaks for the discharges. First the children are born defective to die within a year; thereafter they are born still. This shows a quick deterioration in the condition of the mother and the child in the womb brought about by internal radioactivity exposure(infant mortality going down is made up by increased still births). And see the impact on fertility: It has reduced from 100 percent in 1971 to 63.5% by 1997! Is this phenomenon also exhibited by the individual States of which India is composed?

A typical State in India, chosen at random, Karnataka, shows striking similarities to the ALL-INDIA picture(Figure 120 & Figure BR7189WIK) : The resonances of the Karnataka Infant Mortality and its Rate with the %Total Radioactive Discharge from Sellafield and Chernobyl and with the % Sr 90 Liquid Discharge Sellafield's are too glaring! The phenomenon of simultaneous infant mortalities in Karnataka, India and the World is extremely significant in their correlations to the percent Total Radioactive source discharge strength from Sellafield and Chernobyl.

In some Figures below the Total Radioactive Discharge is shown as 535.72 instead of the 614.6 of Table SACREDM. Such figures have not taken 14C discharges and 3H aerial discharges from Sellafield. The resonance of the peaks of Total Radioactivity Strength with Infant Mortality remains unaffected by the omission.

Table SACREDM: Evaluating the Meanest: Sellafield and Chernobyl: Total Radioactive Discharge												% of Maximum=614.612.					The
					The Meanest												Meanest:
Years	<---------	Sellafield	-------->	Chernobyl/	Chernobyl/	<----------							Sellafield				Total
of	Liquid	Liquid	Aerial	Mumbai Air	Mumbai	Tritium	Ru-106.	Tc-99	Pu-239	Am-241	Kr-85	Pu 239	14C Air	14C	3H	Total	Radioactive
Nuke	90Sr	Cs137	Cs137	Ground Level	Ground	Liquid	Liquid	Liquid	Liquid	Liquid	Aerial	Aerial		Liquid	Aerial	:Sum of	Discharge:
Age	Percent	Percent	Percent		Deposition	Percent	Percent	Percent	Percent	Percent	Syner-	Percent	% of	% of	Percent	percents	% of Max
	of Max.	of Max.	of Max.	Cs137	Cs137	of Max=	of Max=	of Max=	of Max=	of Max=	gistic	of Max=	Max=	Max=	of Max=	of nuclide	.Max=
	Max.=	Max.=	Max.=	Max.=	Max.=	3000	1450	190	55	120	v*10^3	100	32.3	12	860	strength.	614.612553
	597	5200	450	4.07	182.09						TBQ/y					incl14C	incl14C
	TBQ/y	TBQ/y	TBQ/y	Bq/1000m^3	Bq/Km^2	TBQ/y	TBQ/y	TBQ/y	TBQ/y	TBQ/y	Max=100	GBq/y	TBQ/y	TBQ/y	TBQ/y	Air+Liq.	Air+Liq.
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	& 3H Air	& 3H Air
1969		8.65385	8.8889	0	0	29.167	60.345	5.7895	47.273	12.5		100				272.6164	44.3558188
1970	38.526	23.0769	88.889	0	0	41.667	68.966	5.7895	63.636	16.667		65	27.864	8.333	51.512	499.9252	81.3398943
1971	77.0519	21.1538	12.222	0	0	41.667	100	21.053	83.636	33.333		30	30.96	8.333	51.512	510.9217	83.1290706
1972	94.1374	21.1538	27.778	0	0	41.667	82.759	21.053	87.273	66.667		75	53.56	8.333	35.233	614.6126	100
1973	46.9012	15.3846	2.2222	0	0	25	100	21.053	100	91.667	40	25	75.232	8.333	51.512	602.3045	97.9974237
1974	65.3266	76.9231	0	0	0	41.667	20.69	21.053	69.091	100		30	53.56	8.333	51.512	538.1549	87.560025
1975	78.057	100	0	0	0	46	51.724	21.053	63.636	29.167		30	62.848	8.333	51.628	542.4463	88.2582508
1976	63.8191	81.7308	0	0	0	41.667	55.172	21.053	69.091	8.3333	50	18	100	8.333	51.628	568.8271	92.5505111
1977	71.5243	84.6154	0	0	0	30	60.69	21.053	54.545	3.3333	50	9	81.424	8.333	34.419	508.9368	82.8061242
1978	100	77.8846	51.111	0	0	33.333	55.172	94.737	81.818	6.6667	30	5	26.625	8.333	25.814	596.4958	97.0523356
1979	41.876	50	53.333	0	0	40	24.138	27.368	68.182	6.6667	25	7	22.601	8.333	33.721	408.2191	66.418933
1980	58.9615	57.6923	53.333	0	0	43.333	20.69	30	36.364	6.6667	40	8	26.316	8.333	29.302	418.9919	68.1717047
1981	46.3987	46.1538	100	0	0	66.667	34.483	2.6316	27.273	7.5	35	5	59.752	8.333	53.372	492.564	80.1421942
1982	53.4338	38.4615	17.778	0	0	60	31.034	1.5789	30.909	5	50	6	29.412	8.333	41.86	373.8012	60.8190045
1983	34.1709	19.2308	4.4444	0	0	60	34.483	2.1053	18.182	1.6667	45	0	22.601	8.333	31.163	281.3793	45.7815768
1984	12.0603	8.65385	1.1111	0	0	53.333	31.034	2.1053	18.182	1.6667	40	0	22.601	8.333	40.581	239.6622	38.9940247
1985	8.71022	7.69231	0.4444	0	0	36.667	3.4483	1.0526	4.5455	0.8333	35	0	22.601	10.83	31.163	162.9901	26.5191582
1986	3.06533	0	0	100	100	73.333	0	2.6316	0	0	25	0	17.647	21.67	19.884	363.2277	59.0986441
1987	2.51256	0	0	58.96805897	56.4171564	45.833	0	1.5789	0	0	60	0	30.341	17.5	9.1047	282.2553	45.9240973
1988	1.69179	0	0	0	0	56.667	0	1.5789	0	0	40	0	11.146	25	21.628	157.7108	25.6602022
1989	1.54104	0	0	0	0	70.833	0	1.5789	0	0	45	0	13.003	16.67	78.721	227.344	36.9898094
1990	0.70352	0	0	0	0	56.667	0	1.5789	0	0	60	0	12.693	16.67	68.953	217.2628	35.3495522
1991	0.68677	0	0	0	0	60	0	1.0526	0	0	45	0	17.957	20	71.977	216.6728	35.253559
1992	0.70352	0	0	0	0	40	0	1.5789	0	0	50	0	7.7399	6.667	37.674	144.3635	23.4885356
1993	2.86432	0	0	0	0	76.667	0	2.6316	0	0	25	0	35.294	16.67	100	259.1234	42.1604392
1994	4.84087	0	0	0	0	56.667	0	31.579	0	0	60	0	13.003	68.33	63.953	298.3764	48.5470727
1995	4.69012	0	0	0	0	90	0	100	0	0	40	0	13.003	100	67.442	415.1351	67.5441905
1996	2.68007	0	0	0	0	100	0	68.421	0	0	95	0	11.765	91.67	61.628	431.1604	70.1515771
1997	6.19765	0	0	0	0	86.667	0	42.105	0	0	100	0	5.5728	36.67	19.767	296.9764	48.3192944
1998		0	0	0	0	76.667	0	28.947	0	0	95	0				200.614	32.6407318
1999		0	0	0	0	0	0	0	100	100	100	0				300	48.8112386
Sources for Raw Data:																614.6126	
1. L. Leon Vintro et al. Chap.10. SELLAFIELD. In http://www.ancia.be/radio/(4 sur 6)04/08/2005 16.27:24 in																	
Radioactivity from Military Installation Sites and Effects on Population Health in SCOPE-RADSITE.																	
Eds. Rene' J. C. Kirchmann & Arrigo A. Cigna.																	
2. Misl U. C. 1990. Comparison of Radionuclides Levels from the Chernobyl Nuclear Accident and from Global Fallout.																	
Article: Vol.138.No.1(1990Journal of Radioanalytical and Nuclear Chemistry																	
3.UNSCEAR 2000. Exposures to the public from man-made sources of radiation.Annexe C. Table 40. For Sr90 Liquid effluents from Sellafield Reprocessing Plant.																	
					http://nucleargulfstreamconnect.blogspot.com/												
Link: Sheet4: 120707copy24May07 the effects onlifebychernob					El501:EZ551												

Figure NDSC: Nuclear Discharges Sellafield and Chernobyl and India Infant Mortality and Still Births. Infant mortality is Excess over prenuclear annual mean, 1911-45. The holocaust effects of low-level radiation.

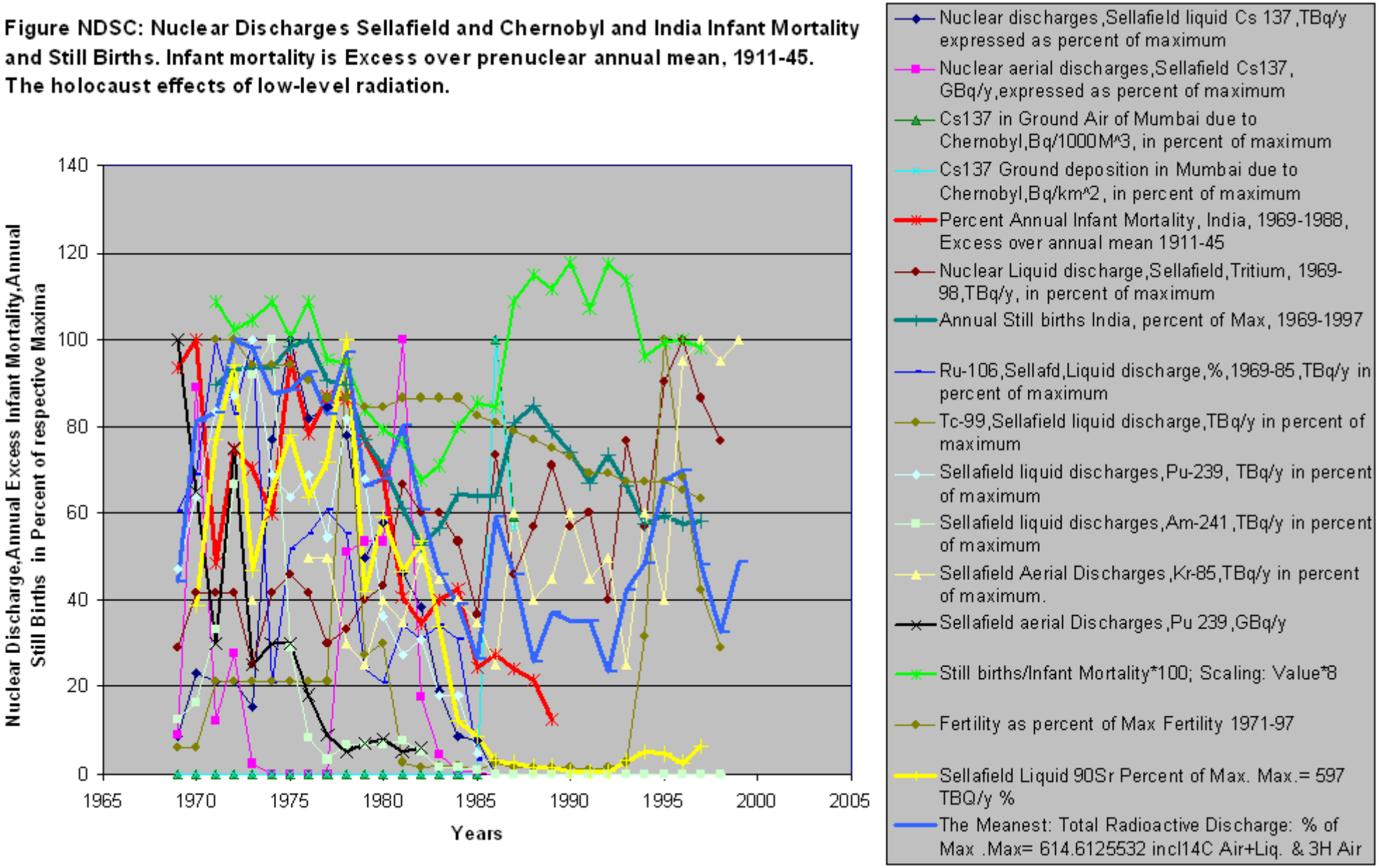
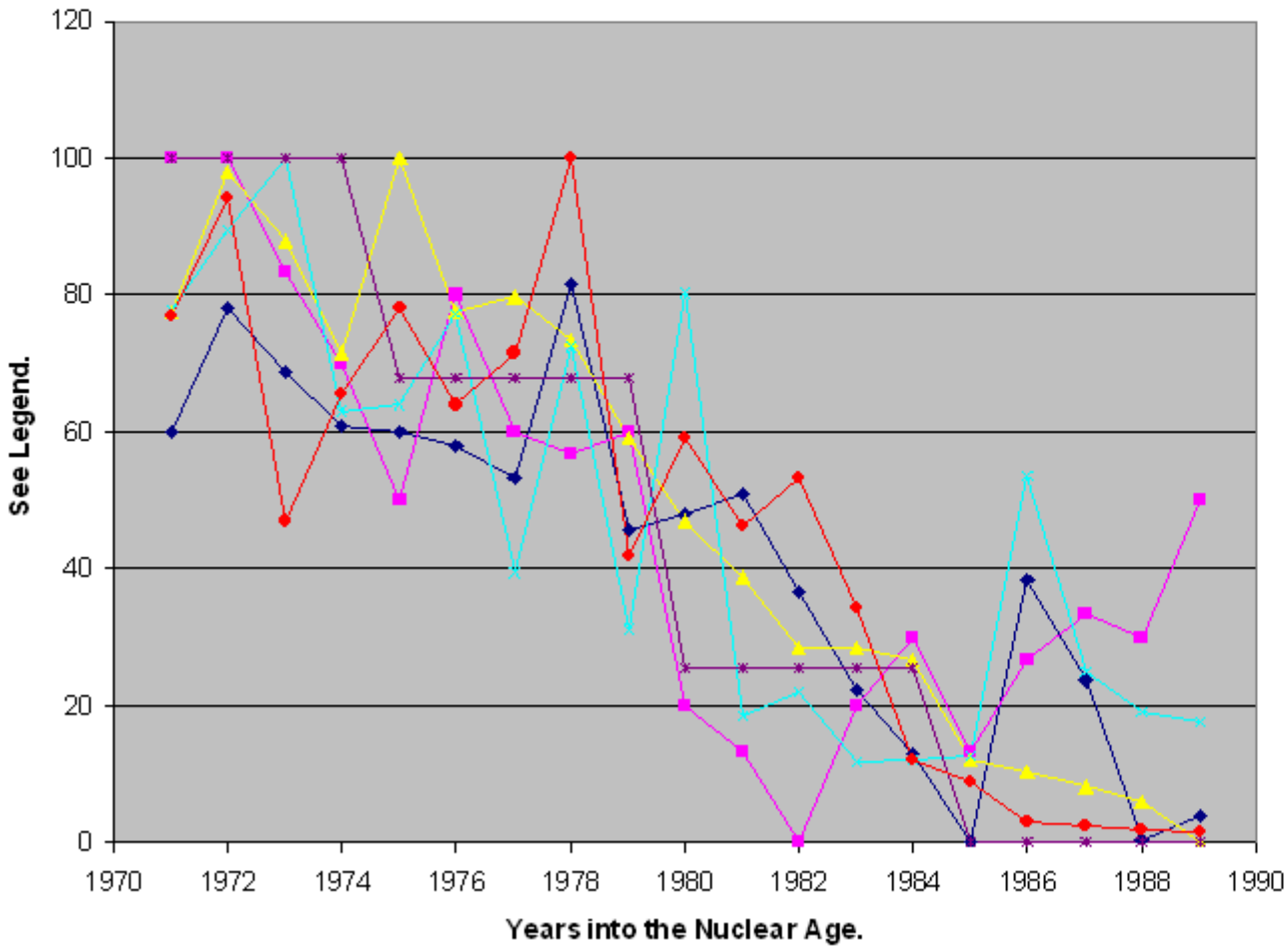


Figure 120: Biphasic Response of Pregnancy Outcomes of Karnataka, India and World to Total Radioactive Discharge Strength (%) from Sellafield and Chernobyl & Sellafield Sr90 Liquid Discharge(%),1971-89.



- % Total Radioactive Discharge Strength, %TRD : The meanest dose. % of max= 535.7231642 Value-Min Min=18.37%.
- Kamataka IMR /1000 live births %of Max .Max=95 Value-Min %Max= 31.57894737 ;r(%TRD)= 0.626437147 ;p = 0.004.
- IMR India Value-Min as % of its Max=35.
- India IMR+SBR in % of Max= 43.53953. Here IMR+SBR denotes (IMR+SBR per 1000 live births- MeanIMR+ SBR, 1911-45: 10.53108321 ,both over cir1999/1911 .r(%Sr90Liquid) =0.84; r(%TRD)= 0.839.)
- Annual World Infant Mortality Rate, A= WIMR-MinWIMR / Max(WIMR-MinWIMR) *100 MinWIMR=67.3; Max A=22.7 .Source UN.
- UNSCEAR 2000: Sellafield Liquid Discharge: 90Sr Percent of Max. Max.= 597 (Derived from TBq/y). %

Figure BR7189WIK: Simultaneous Biphasic Responses of World, India and Karnataka Infant Mortality to Internal Radionuclide Contamination. Extremely significant phenomenon. 1971-89. Notice the transgenerational echo at 1984 & 1988. Refer Figure IMIANT also.

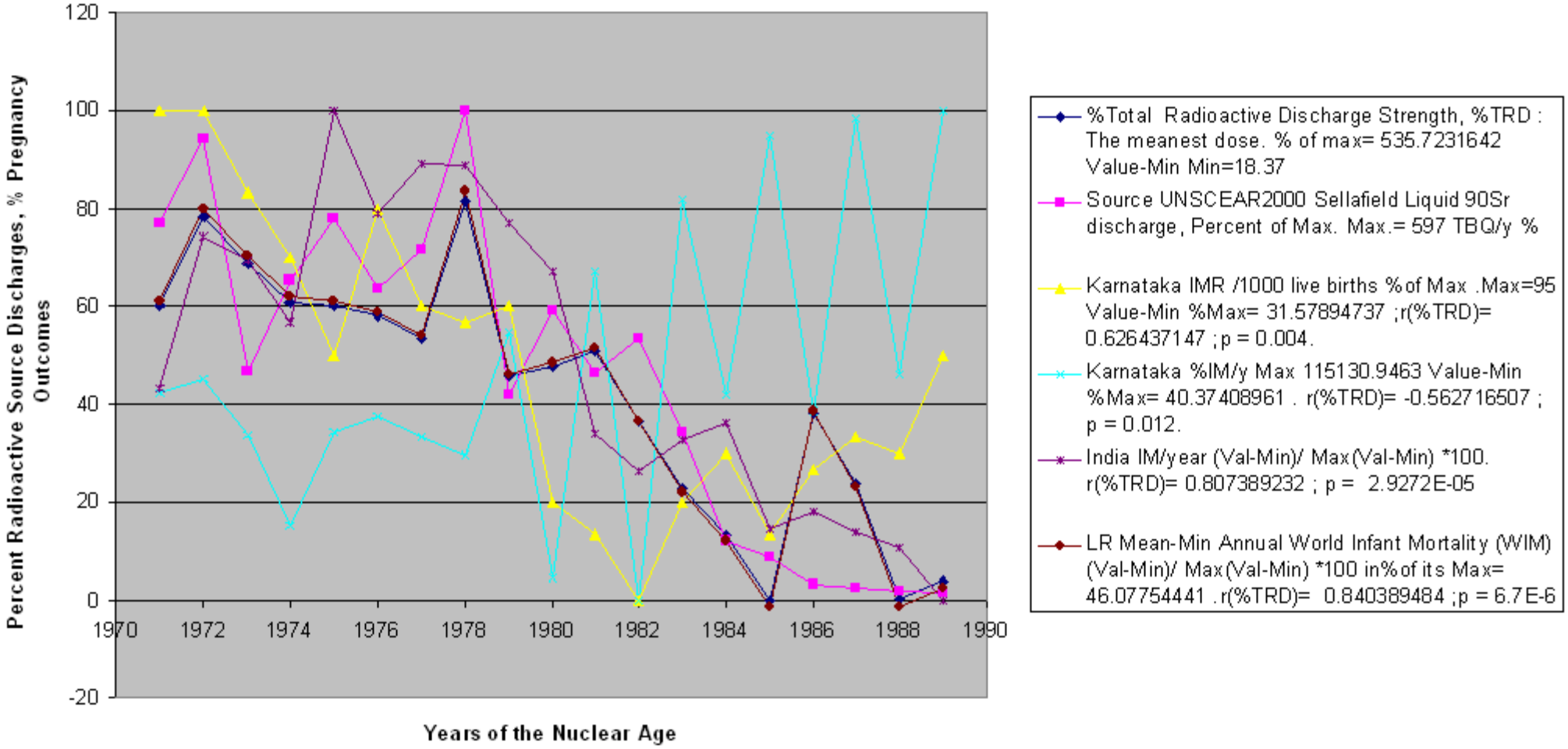


Figure IRIM7189: 1971-89 %Total Radioactive discharge from Sellafield(incl.Sr90) and Chernobyl(accident) and consequent Infant Mortalities in India and the World. Note Resonance of infant mortalities with source point radioactive strengths(See legend).

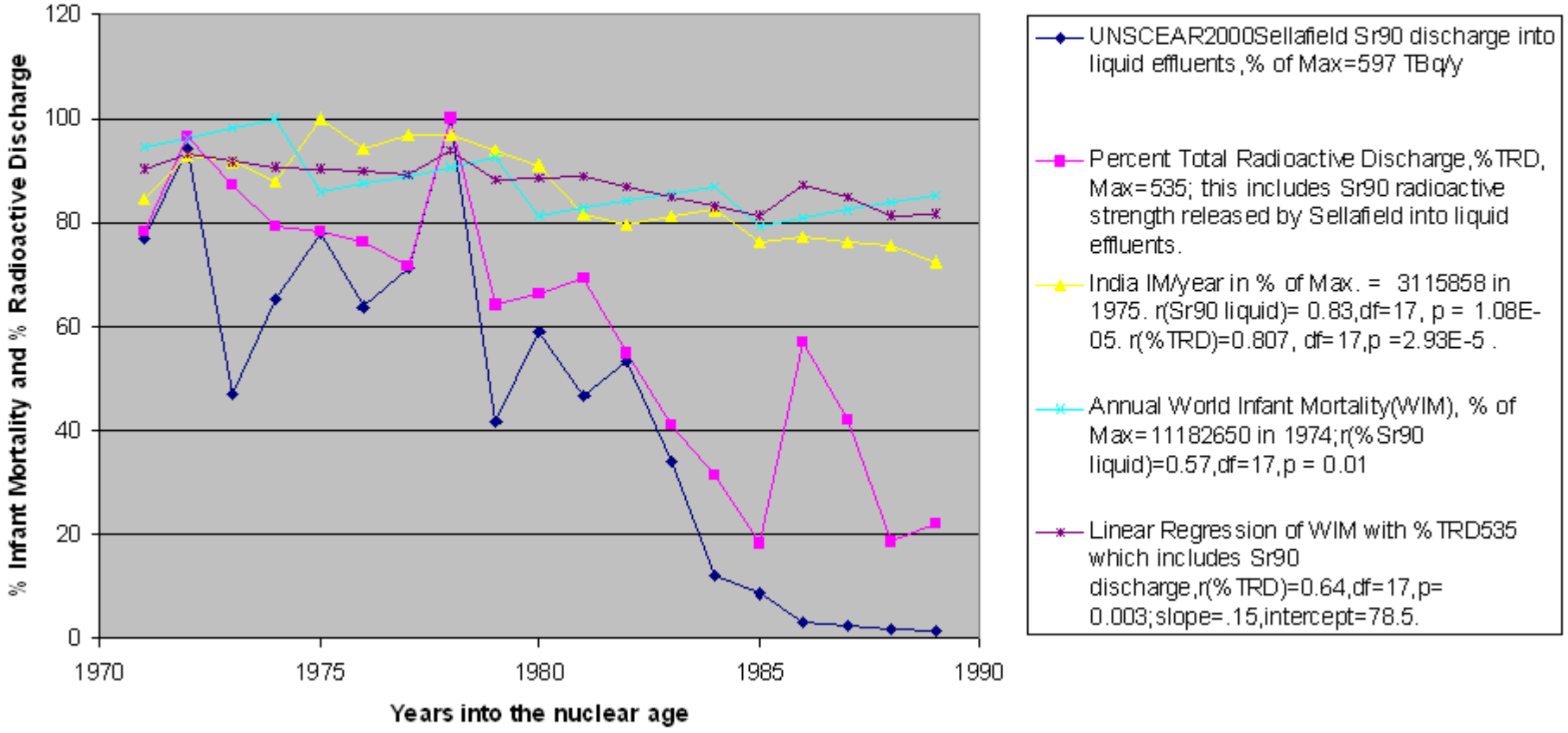
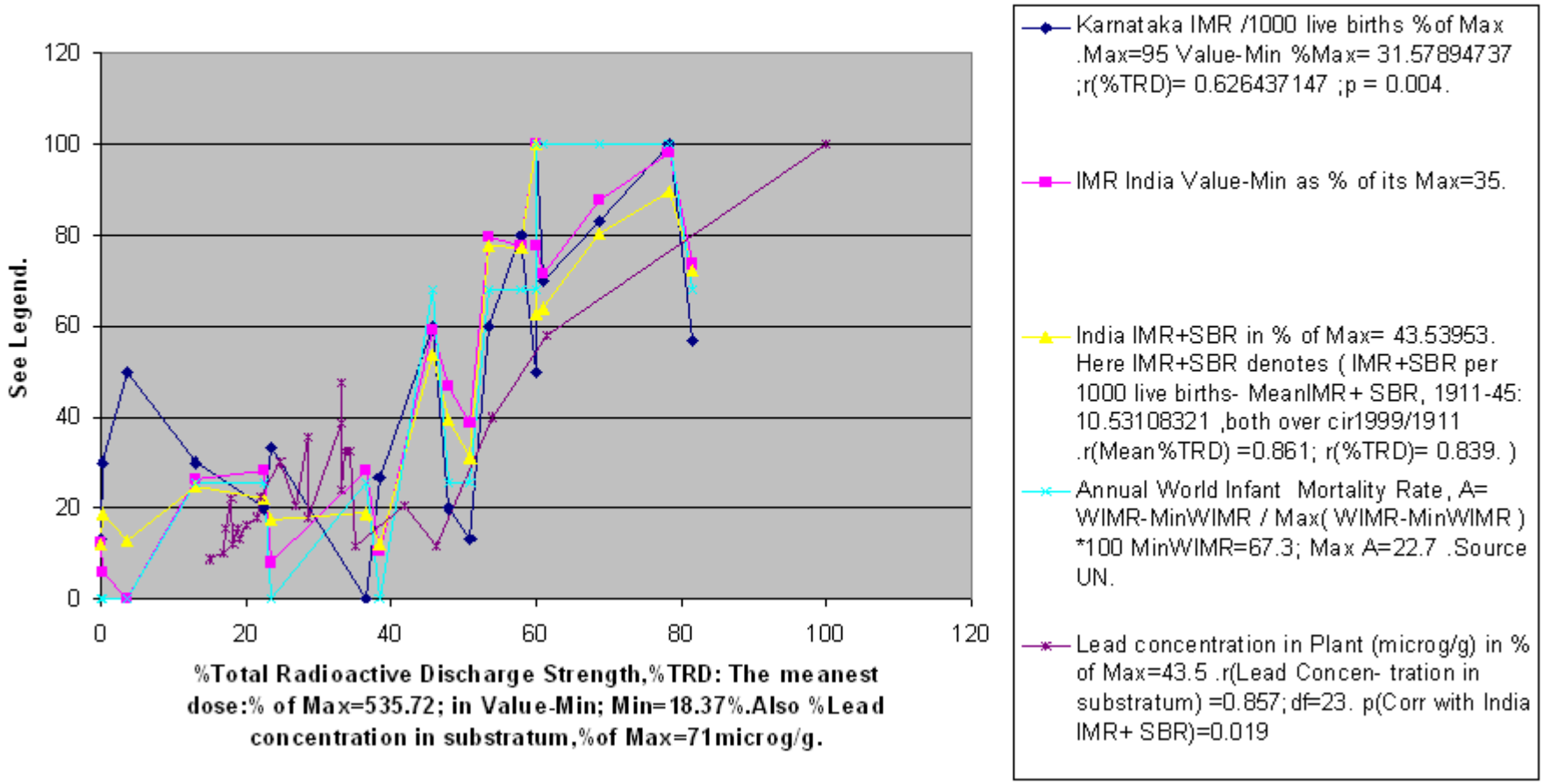


Figure CCR:Unique cell property: Biphasic Response 1) of Pregnancy Outcomes of India and the World to Radioactive Discharges from Sellafield and Chernobyl: 1971-1989; & 2) % Lead uptake in mosses in response to % Lead concentration in substratum.



Biphasic Response of the cell is a typical characteristic property of the cell in response to any internal contamination as illustrated by the evidence above (Figure CCR):

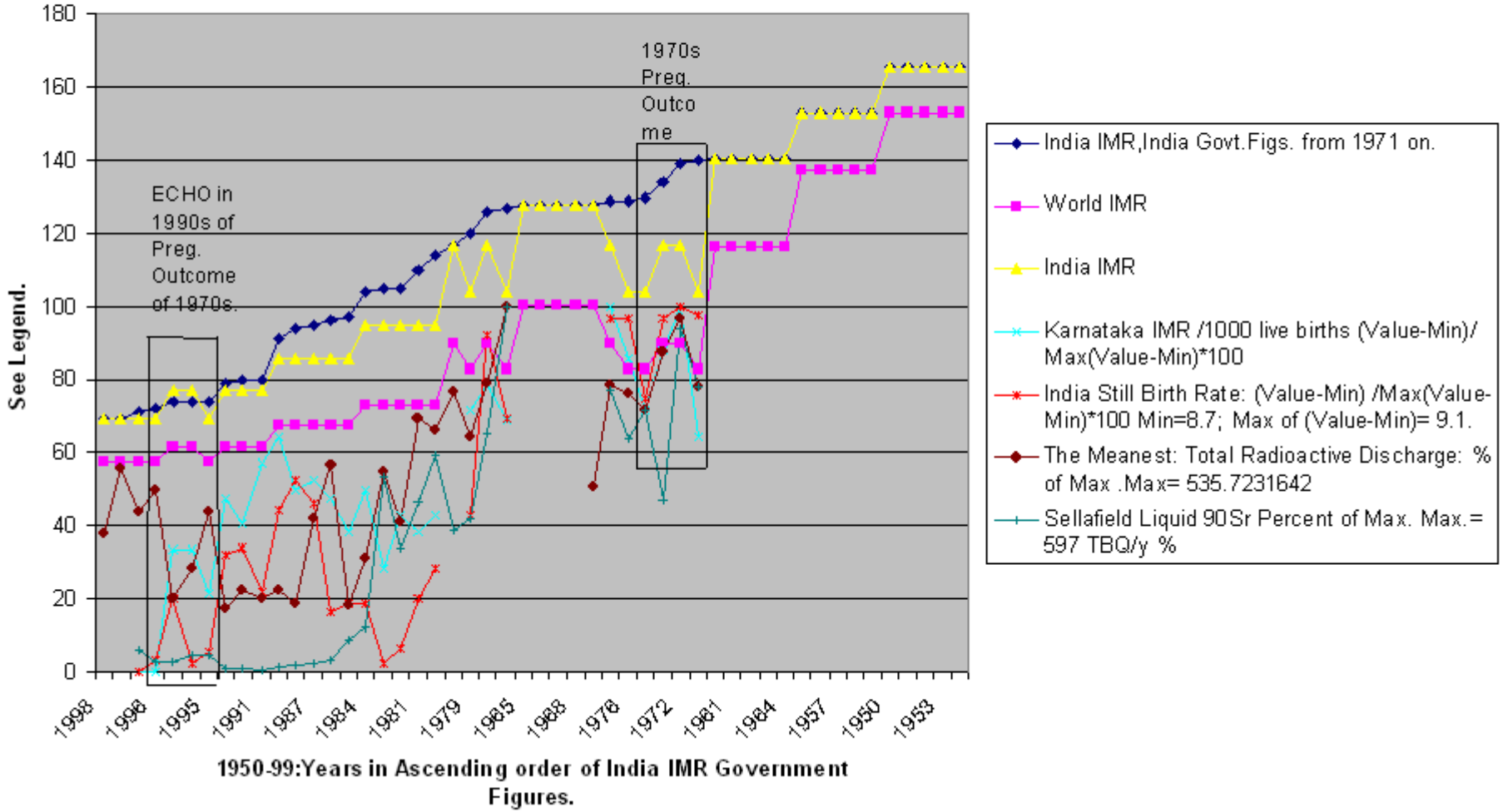
The toxicity of lead in plants depicts similar behaviour to internal contamination of living beings (ex: humans).

Thus see Figure CCR: Two opposing effects are seen in both the uptake of lead into mosses and of pregnancy outcomes in India in response to internal radionuclide contamination:

One effect is the toxicity due to lead accumulation in nucleii of the cells of plants and the other is the response of the cell to combat it. This is a series of biphasic responses as the lead dose from the substratum increases. Similarly in humans, the deposition of energy in the cell as the Sr90 radionucleii(and others) decay causes induction of cell repair/mutation effects and the battle between these two opposing effects causes a biphasic response. In such a chaotic setting, it is wise to apply the precautionary principle. And note that as the dose increases, of highly toxic lead due to coal fired plants or the release of radionuclides by both coal fired plants and nuclear power plants, the health of all life adversely degenerates with time. This is illustrated by lead poisoning, where above a certain limit (about 46% in lead in mosses) the living being exerts no more resistance to the toxicity. The precautionary principle means that when we are unsure about the risks of a certain industrial process we should not allow it to proceed until we can be sure that it is safe.
For a discussion of the biphasic response with data from studies conducted with mosses on lead uptake see the URL:
http://www.geocities.com/rakumra/chamalpuragoisothermala.pdf
For new recommendations on Radiation Risk due to internal contaminants see 2003 Recommendations of the European Committee on Radiation Risk: Health Effects of Ionising Radiation Exposure at Low Doses for Radiation Protection Purposes. Regulators' Edition: Brussels,2003. Eds. Chris Busby et al.Website: www.euradcom.org

Transgenerational echo of the 1970s in the 1990s is clearly seen dramatically in the following figure (Figure 125):

Figure 125: Transgenerational Echo of the 1970s in the 1990s: World Infant Mortality Rate(IMR), India IMR, India Still Birth Rate and Karnataka IMR in Response to % Radioactive Discharge:Total, Sellafield & Chernobyl & Sr90 liquid discharge Sellafield's.



Significant correlations exist between all the pregnancy outcomes with Sr90 Liquid Discharges from Sellafield (Figure 135):

Figure 135: Biphasic Response of Pregnancy outcomes(with echos of 70s in the 90s) of India and the World to Sellafield Sr90 Liquid discharge and Total Radioactive discharge from Sellafield and Chernobyl:1971-97.

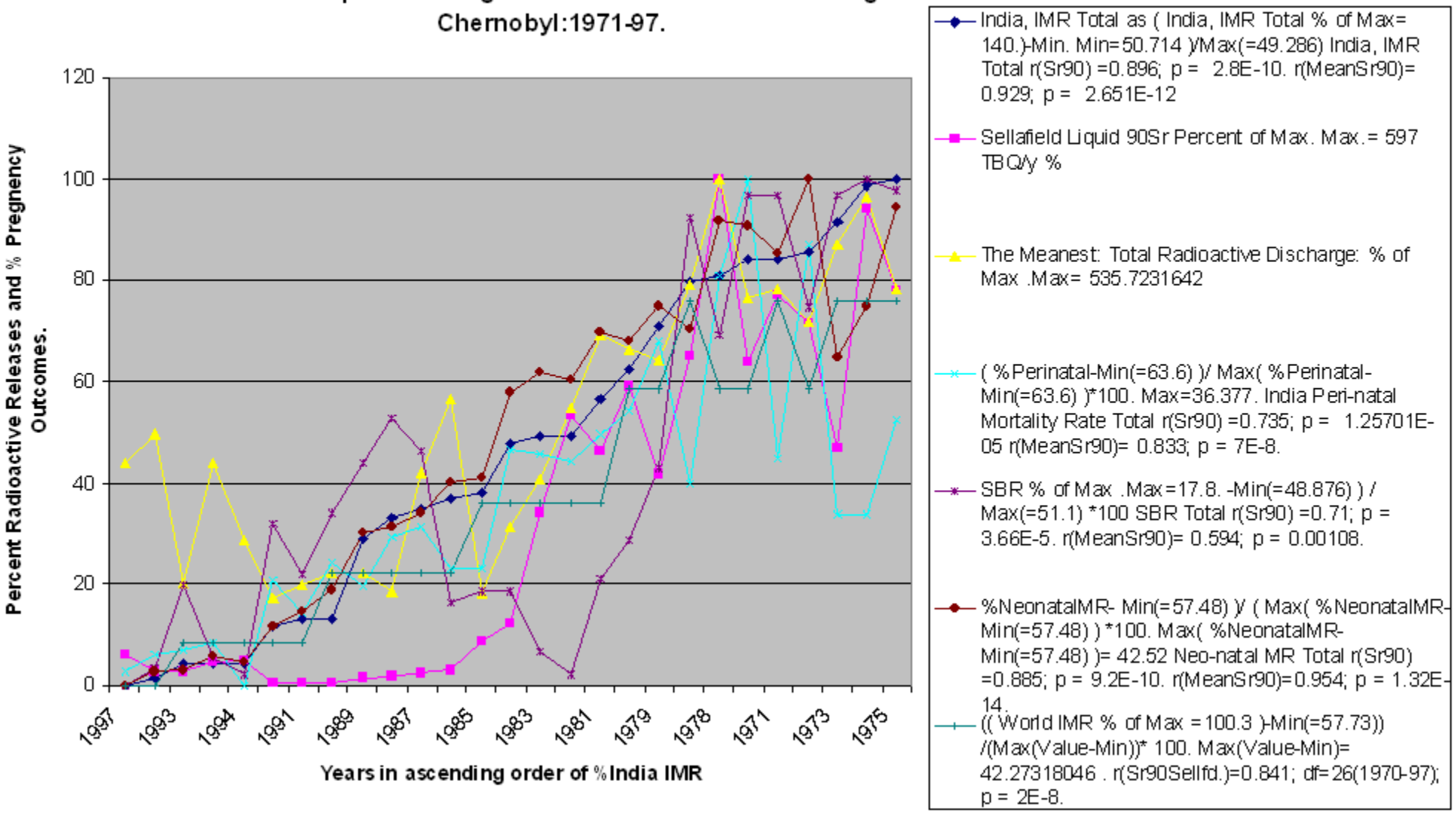
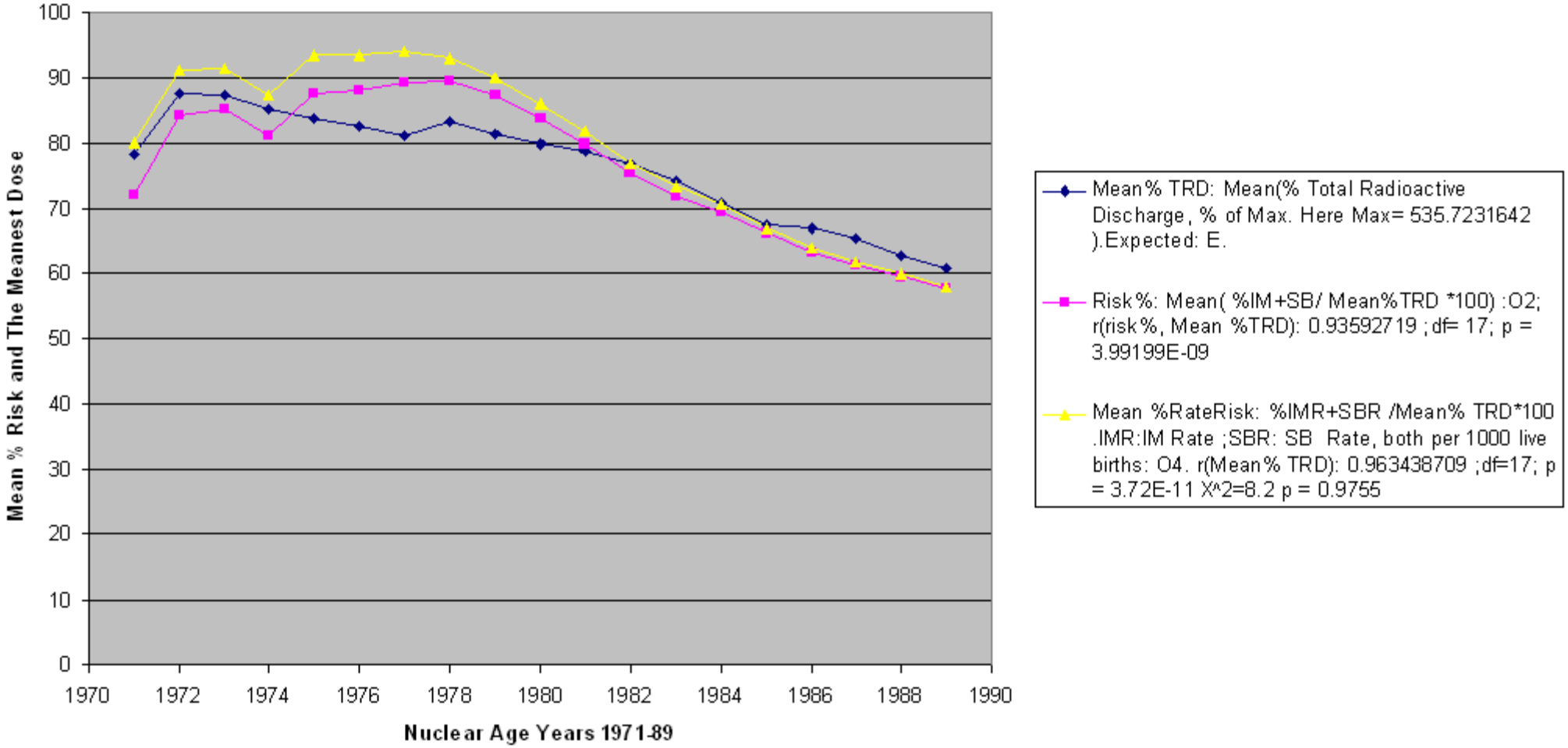


Figure RTRD7189: % Risk of Infant Mortality(IM) and Stillbirth(SB) and the Mean of the Meanest Dose, Mean % Total Radioactive Discharge(Strength) are equal:Chi-square Sum, X^2= 8.2, p = 0.9755: 1971-89.



There is no significant difference in the annual means for %Risk and % Total Radioactive Discharge (%TRD). The Chi-square distribution: X^2=8.2 and p= 0.9755. For the Sum of Infant Mortality Rate and Stillbirth Rate in percent of its Maximum, less than 8% of the variations in the regression of its Mean with Mean % Total Radioactive Discharge Strength remain to be explained: Extremely significant correlations between Mean % Rate Risk and Mean %TRD as well as between % Risk and Mean % TRD exist. For correlation coefficients, their probabilities and definitions of the % Risk terms used here see the legend in Figure RTRD7189 above.

The Total Toll 1971-89 and during the Chernobyl Years 1986-89.

The total toll of infant mortality and still births in India during 1971-89 due to Sellafield operations, Chernobyl accident, nuclear weapons tests and normal operations of nuclear fuel cycle is given in Table MIMSB7189A. The total toll as given in Table Deaths is 8785245. The toll of infant mortality and still births due to Chernobyl is included in the toll for 1986-89, titled Chernobyl. The 1986-89 toll equals 664234 deaths.

Table MIMSB7189A: The implications of the meanest dose on pregnancy outcomes on the subcontinent:

Infant Mortality + Still Births: An Assessment 1971-89.

	Years into the Nuclear Age.	The meanest % TRD: Total Radioactive Discharge % of Max. Here Max= 535.7231642	dose: Mean % TRD: Mean% Total Radioactive Discharge % of Max. Here Max= 535.7231642 Expected: E.	IMR:Infant Mortality Rate SBR: Stillbirth Rate IMR+SBR per 1000 live births	cir1997/ 1911	IMR+SBR per 1000 live births cir1997/ 1911	Mean IMR+SBR, 1911-45: 10.53108	IMR+SBR per 1000 live births- Mean IMR+SBR, 1911-45: 10.53108321 ,both over cir1999/1911	live births	IM: Infant Mortality. SB: Stillbirths. IM+SB with IMR+SBR over mean 11-45,both over cir 1999/1911 ; % of Max.=	Max of IM+SB: 969021	% IM+SB with IMR+SBR over mean IMR+SBR 11-45,both over cir 1999/1911
1	1971	78.42053843	78.42053843	146.5	108.5723353	37.9276647	10.53108	27.39658152	20375213	558211.2	969021	57.6056738
2	1972	96.59583994	87.50818919	156.8	107.2890253	49.5109747	10.53108	38.97989146	20829988	811950.7	969021	83.7908058
3	1973	87.21431881	87.4102324	151.5	106.0208839	45.4791161	10.53108	34.94803284	21294913	744215.3	969021	76.8007275
4	1974	79.28527287	85.37899252	143.1	104.7677318	38.3322682	10.53108	27.80118498	21770215	605237.8	969021	62.4586745
5	1975	78.33089537	83.96937309	157.6	103.5293918	54.0706082	10.53108	43.53952503	22256127	969021.2	969021	100
6	1976	76.32035471	82.69453669	146.5	102.3056887	44.1943113	10.53108	33.66322807	22752883	765935.5	969021	79.0421836
7	1977	71.82081587	81.141148	145.5	101.0964497	44.4035503	10.53108	33.87246711	23260728	787898.2	969021	81.30867
8	1978	100	83.4985045	142	99.90150368	42.0984963	10.53108	31.56741311	23779907	750670.2	969021	77.4668467
9	1979	64.13092435	81.34655115	132.6	98.72068177	33.8793182	10.53108	23.34823502	24310675	567611.3	969021	58.5757419
10	1980	66.27311087	79.83920712	125.3	97.55381702	27.746183	10.53108	17.21509978	24853289	427851.8	969021	44.1529924
11	1981	69.2720163	78.87855341	120.5	96.40074444	24.0992556	10.53108	13.56817235	23154078	314158.5	969021	32.4201908
12	1982	54.91561552	76.88164192	113.9	95.26130102	18.638699	10.53108	8.107615773	23653725	191775.3	969021	19.7906216
13	1983	40.93206888	74.11629015	114.3	94.13532567	20.1646743	10.53108	9.63359113	24164155	232787.6	969021	24.0229618
14	1984	31.38688675	71.06418991	114.4	93.02265918	21.3773408	10.53108	10.84625761	24685599	267746.4	969021	27.6306002
15	1985	18.36645089	67.55100731	107.6	91.92314426	15.6768557	10.53108	5.145772534	24474393	125939.7	969021	12.996585
16	1986	56.75137071	66.87603002	106.6	90.83662545	15.7633745	10.53108	5.23229134	25002532	130820.5	969021	13.500276
17	1987	42.05718063	65.4160977	107.9	89.76294915	18.1370509	10.53108	7.605967646	24998620	190138.7	969021	19.6217275
18	1988	18.65467335	62.81824079	107.5	88.70196355	18.7980365	10.53108	8.266953246	24982896	206532.4	969021	21.3135108
19	1989	22.20425159	60.68066241	103.7	87.65351865	16.0464813	10.53108	5.515398144	24792808	136742.2	969021	14.1113744
	1990	76.60473614	8.484907713	91.8	86.61746623	5.18253377		0.860701704		8785245	969021	0.83109583
	1991		71.9936589	90.7	85.5936598	5.1063402		0.838545081		664233.9		0.85735815
	1992			90.6	84.58195462	6.01804538				3.8		29.1471332
	1993			84.5	83.58220766	0.91779234				4321011		
	1994			82.9	82.59427756	0.30572244						
	1995			83.2	81.61802466	1.58197534						
	1996			81	80.65331094	0.34668906						
	1997			79.7	79.7	1.4211E-13						

Mean IMR+SBR 1971-89	30.86022419
Mean RR46-89/ 11-45 (assumed same as for IMR)	2.930394109
Mean IMR+SBR 1911-45	10.53108321
Mean live births/y,1911-45	12640543.09

Table Deaths:		IM+SB
1971-89	Total	8785245
1986-89	Chernobyl	664234

1997/1911 compound interest IMR	in 1911	221.5909
1971/1911 compound interest IMR	in 1971	108.5723
1999/1911 compound interest rate IMR		0.98818

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The Mortalities could have been more than 25% higher but for the body's Repair Process.

In Figure MDIMSBR7189(and Table MIMSB7189) below, notice that the congruence even though almost 100 percent between *% Risk* (See definition in the figure referred to here) of fatal pregnancy outcomes and the Mean of the Meanest Dose: Mean % Total Radioactive Discharge Strength, established by the Chi-squared test, there is a *steady state difference* between *the annual mean % Infant Mortality plus Stillbirths (India) and the Annual Mean of the Meanest Dose*. This I hypothesize is because of the *cell repair* that takes place in nature. The difference for 1971-89 between the Annual Mean of Percent Total Radioactive Discharge and Annual Mean Percent Excess Infant Mortality + Stillbirths (calculated with the Infant Mortality plus Stillbirth Rate over the pre-nuclear Mean Rate for 1911-45 and both over the compound interest rate 1999/1911) is 3.67 standard errors of the mean with 36 degrees of freedom and is extremely significant (p=0 .00079). There is no difference in the statistical significance as determined by the chi-square distribution and the T distribution. The chi-square distribution shows that the steady state difference is significant: Chi-square sum= 38, p = 0.00383. The estimated excess infant deaths including stillbirths during 1971-89 is 8 million seven hundred eighty five thousand two hundred forty five due to radioactive discharges during this period(Table MIMSB7189A). The *Repair Mechanisms* seem to have prevented during 1971-89 a total of three million infant mortalities and stillbirths during the period or 25 % of the total twelve million fatalities of infants including still births expected during the period on the basis of the assumption that the mortalities would follow the radioactive discharge in percent terms without a difference between them in the steady state. The basis for this contention is that the electron tracks through cell nuclei created by internal radioactivity are described by a poisson distribution. Similarly, the difference in the means attributed to cell repair is a poisson distribution with mean of 12.997 and variance 10.2 for the *mean cell repair*. The mean % Total Radioactive Discharge(Strength) is also a poisson distribution: mean 76.6 and variance 71.99. And this matches the poisson frequency for zero cell repairs(Figure TRDZCR and Table TRDZCR).

This body response to radioactive contamination is similar to plant response to lead toxicity(Fig. 130).

Table MIMSB7189:			The implications of the meanest dose on pregnancy outcomes on the subcontinent:									
			Infant Mortality + Stillbirths: An assessment.				India	1971-89.			Risk%:	
		The meanest	dose:				Mean				Mean(	
				IMR+SBR	%IM+SB		IMR+SBR	Cell	%IM+SB/	(O-E)^2/E	%IM+SB/	
		% Total		per 1000	with		per 1000	Repair:	Mean		Mean%TRD	
	Years	Radioactive	Mean%	live births-	IMR+SBR		live births	Mean	%TRD		*100)	
	into	Discharge	TRD:	MeanIMR+	over mean	Mean	over	%TRD	*100		:O2;	
	the	Strength,	Mean(%	SBR,	IMR+SBR	%IM+SB	cir1999/	-	O1		r(risk%,	
	Nuclear	%TRD	Total	1911-45:	11-45,both	Observed:	1911-	Mean			Mean	
	Age.	: The	Radioactive	10.53108321	over cir	O	MeanIMR+	%IM+SB			%TRD):	
		meanest	Discharge,	,both over	1999/1911		SBR,				0.935927 19	(O2-E)^2/E
		dose.	%of Max.	cir1999/1911	;% of Max.=		1911-45:				;df=	
		% of max=	Here Max=	.r(Mean%TRD)	969021.1817		10.53108				17;	
		535.7231642	535.7231642	=0.861;	.r(Mean%TRD)		/Mean				p =	
		.	).Expected:	r(%TRD)=	=0.857;		%TRD				3.992E-09	
			E.	0.839.	r(%TRD):0.831		*100				.	
1	1971	78.42053843	78.42053843	27.39658152	57.60567375	57.60567	34.31007	20.81486	72.14239	5.52481	72.1423892	0.5026127
2	1972	96.59583994	87.50818919	38.97989146	83.79080582	70.69824	39.67414	16.80995	96.81373	3.229119	84.4780574	0.1049239
3	1973	87.21431881	87.4102324	34.94803284	76.8007275	72.7324	39.69509	14.67783	87.32476	2.464685	85.426959	0.044999
4	1974	79.28527287	85.37899252	27.80118498	62.45867448	70.16397	37.41225	15.21502	68.66511	2.711403	81.2364967	0.2009894
5	1975	78.33089537	83.96937309	43.53952503	100	76.13118	39.75113	7.838197	112.7863	0.731664	87.5464538	0.152383
6	1976	76.32035471	82.69453669	33.66322807	79.04218362	76.61634	39.61719	6.078192	91.44979	0.446758	88.1970093	0.3661331
7	1977	71.82081587	81.141148	33.87246711	81.30866996	77.28668	39.71398	3.854472	96.72492	0.1831	89.415282	0.8437309
8	1978	100	83.4985045	31.56741311	77.46684667	77.3092	39.3393	6.189307	90.10296	0.458781	89.5012412	0.4315388
9	1979	64.13092435	81.34655115	23.34823502	58.57574187	75.2277	38.05889	6.118849	69.78344	0.460257	87.3103741	0.4372304
10	1980	66.27311087	79.83920712	17.21509978	44.15299243	72.12023	36.34829	7.718976	53.73963	0.746282	83.9532993	0.211998
11	1981	69.2720163	78.87855341	13.56817235	32.42019075	68.51114	34.5599	10.36742	39.84607	1.362643	79.9435514	0.0143793
12	1982	54.91561552	76.88164192	8.107615773	19.79062165	64.45109	32.53226	12.43055	24.96684	2.009823	75.3621588	0.030031
13	1983	40.93206888	74.11629015	9.63359113	24.02296178	61.34124	31.00302	12.77505	31.55036	2.201972	71.9920201	0.0608844
14	1984	31.38688675	71.06418991	10.84625761	27.63060019	58.93334	29.84718	12.13085	37.75685	2.070771	69.5466508	0.0324063
15	1985	18.36645089	67.55100731	5.145772534	12.99658498	55.87089	28.35062	11.68012	18.68685	2.019589	66.1559972	0.0288086
16	1986	56.75137071	66.87603002	5.23229134	13.500276	53.22272	27.05475	13.65331	19.65257	2.787438	63.2495333	0.1966546
17	1987	42.05718063	65.4160977	7.605967646	19.62172749	51.24619	26.12722	14.1699	29.1172	3.06937	61.2417489	0.2663746
18	1988	18.65467335	62.81824079	8.266953246	21.31351077	49.58327	25.38602	13.23497	32.96326	2.788435	59.6707215	0.157707
19	1989	22.20425159	60.68066241	5.515398144	14.11137444	47.71632	24.51403	12.96434	22.56199	2.769813	57.7176304	0.1446846
		Mean	76.60473614	0.860701704	0.857358154	10.27537	r(Mean%	11.51169	0.832949	X^2 Sum:	r(risk%,	X^2 Sum:
		sdp	8.484907713	0.838545081	0.831095827	0.42446	TRD):	4.299221	0.815389	38.03671	Mean	3.7258569
			71.9936589	43.53952503	pooledsdp	9.680966	0.973025	18.4833		df	%TRD):	df
MeanIMR+SBR			30.86022419		sem	3.14092	r(%TRD):			18	0.935927 19	18
1971-89 over cir 1997/1911					dm/sem	3.665071	0.880011			p(X^2):	df	p(X^2):
MeanRR46-89/			2.930394109		p(dm/sem)	0.000791				0.00383	17	0.9998586
11-45					mean	65.09304					Tdist p	
(assumed					Note: dm: difference of means						10.9568352	
same as for					(Cell Repair); sem: standard						3.992E-09	
IMR)					error of the mean.					Note: df: degrees of freedom.		
1911-45:				1997/1911 compound interest IMR			in 1911	221.5909			1-r^2=	
MeanIMR+SBR			10.53108321	1971/1911 compound interest IMR			in 1971	108.5723			0.87595971	
Live births/y			12640543.09	1999/1911 compound interest rate IMR				0.98818			0.12404029	
Sheet4:120707copy24May07theeffectsonlifebychernobylp				© 2007 Ramaswami Ashok Kumar				http://nucleargulfstreamconnect.blogspot.com/				

Figure MDIMSBR7189: The implications of the meanest dose on pregnancy outcomes on the subcontinent. India. 1971-89. It would have caused about 12 million infant deaths including stillbirths; repair(Pink-Red) saved about 3 million of these.

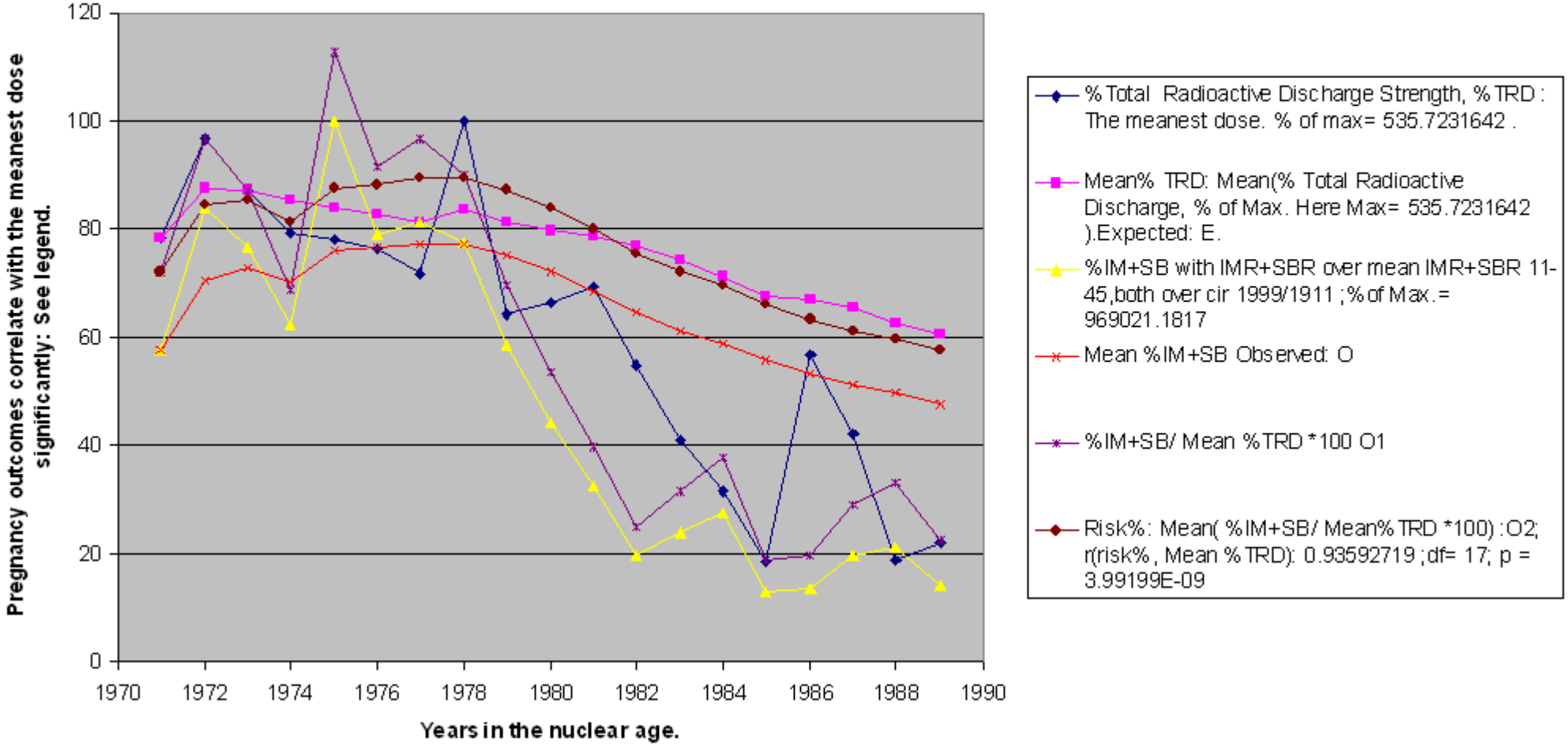


Figure 130: Similarity in Biphasic Responses of Pregnancy Outcome to Internal Radioactive Contamination and of Lead Uptake in Mosses. Difference in Steady State between Mean Response & Mean Internal Contamination/ Substrate concentration.

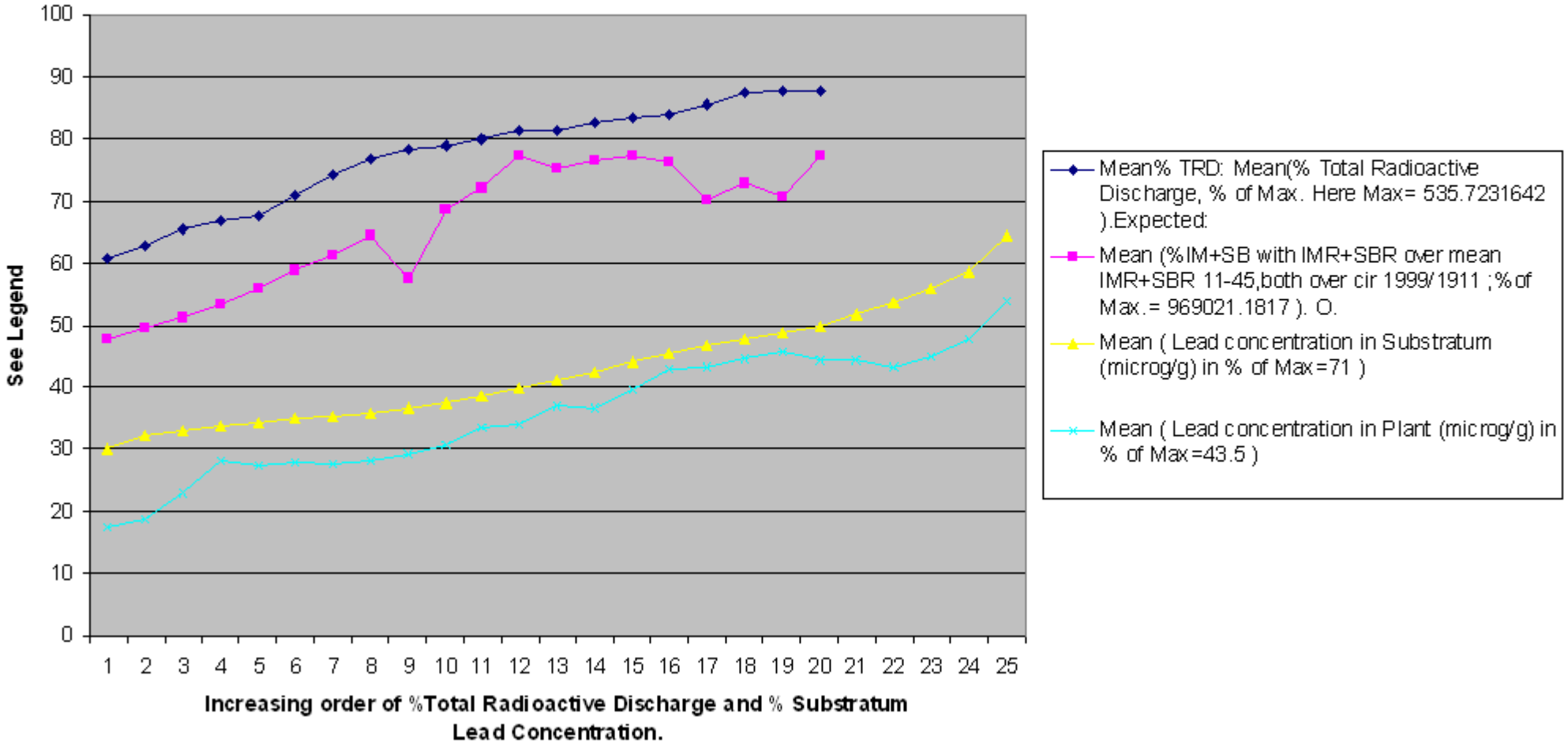


Figure TRDZCR: Poisson Frequency for Zero Cell Repair: 1971-89

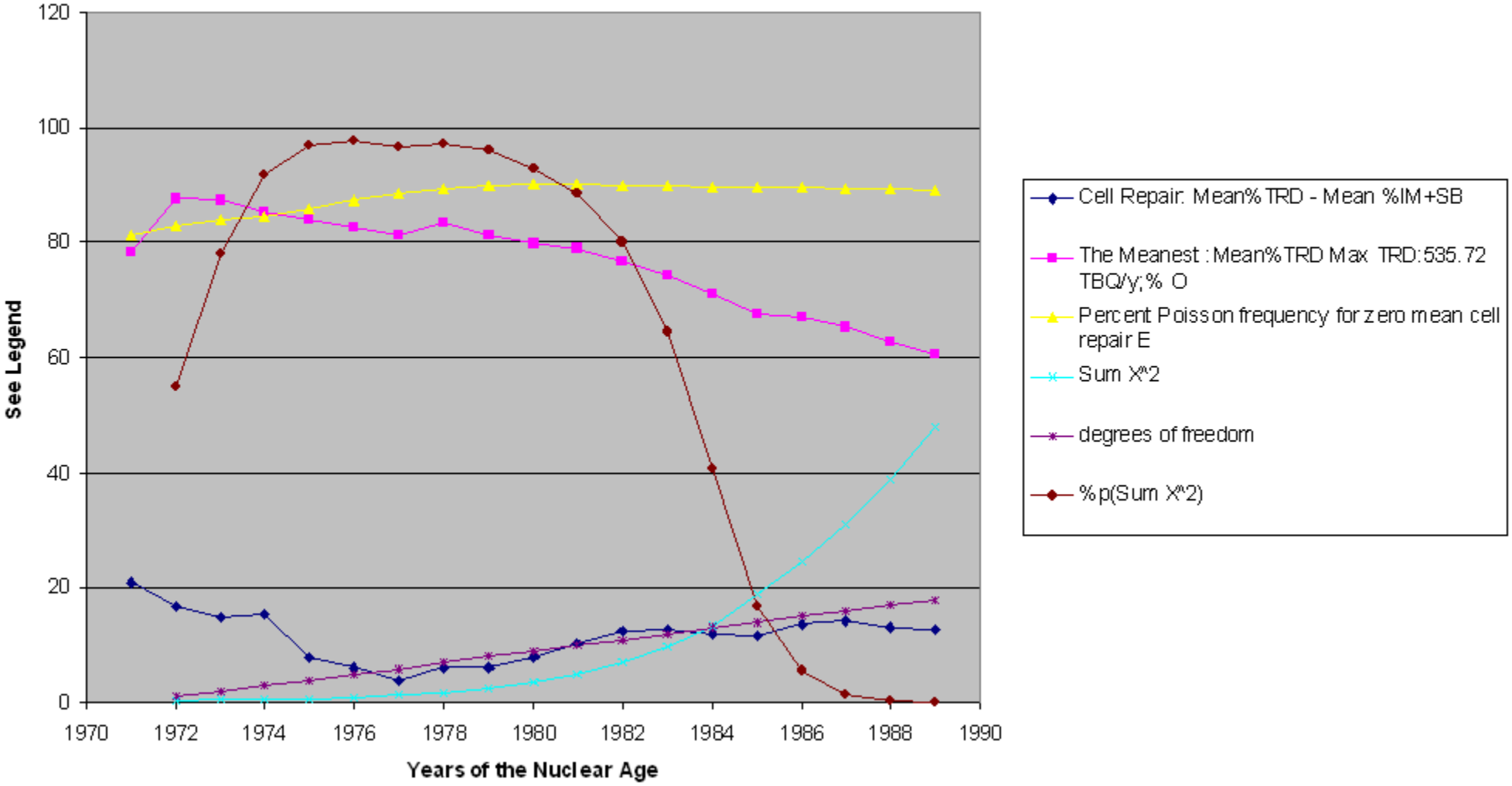


Table TRDZCR: 1971-89: Zero Cell Repair Poisson Frequency equals the meanest!									
(Including Sr90 liquid effluent Sellafield's)									
Chart 109					Percent				
		Cell			Poisson				
		Repair:	Poisson	The Meanest	frequency				
		Mean%TR	frequency	:Mean%TRD	for zero				
		-	for zero	Max TRD: 53	mean cell			degrees	
		Mean	**mean cell**	TBQ/y;%	repair	X^2		of	
		%IM+SB	repair	O	E	(O-E)^2/E	Sum X^2	freedom	%p(Sum X^2)
1	1971	20.81486	0.812086314	78.4205384	81.20863	0.095722			
2	1972	16.80995	0.828511907	87.5081892	82.85119	0.261766	0.3574882	1	54.99045226
3	1973	14.67783	0.840009442	87.4102324	84.00094	0.13837	0.4958587	2	78.04150921
4	1974	15.21502	0.84468275	85.3789925	84.46828	0.009819	0.5056778	3	91.76422626
5	1975	7.838197	0.860095606	83.9693731	86.00956	0.048394	0.554072	4	96.80280306
6	1976	6.078192	0.873084072	82.6945367	87.30841	0.243823	0.7978951	5	97.71674094
7	1977	3.854472	0.885289337	81.141148	88.52893	0.616515	1.4144096	6	96.49759945
8	1978	6.189307	0.891948135	83.4985045	89.19481	0.363787	1.7781969	7	97.10913526
9	1979	6.118849	0.897232047	81.3465512	89.7232	0.782053	2.5602501	8	95.88621273
10	1980	7.718976	0.900040373	79.8392071	90.00404	1.14799	3.7082406	9	92.95453842
11	1981	10.36742	0.900174693	78.8785534	90.01747	1.378349	5.0865891	10	88.53191741
12	1982	12.43055	0.89874013	76.8816419	89.87401	1.878204	6.9647928	11	80.19274408
13	1983	12.77505	0.897290238	74.1162901	89.72902	2.716595	9.6813882	12	64.38896381
14	1984	12.13085	0.89646174	71.0641899	89.64617	3.8517	13.533088	13	40.75273956
15	1985	11.68012	0.896013528	67.5510073	89.60135	5.426455	18.959543	14	16.65008848
16	1986	13.65331	0.89451769	66.87603	89.45177	5.69764	24.657183	15	5.474110853
17	1987	14.1699	0.892928522	65.4160977	89.29285	6.384603	31.041786	16	1.329187124
18	1988	13.23497	0.891981478	62.8182408	89.19815	7.801726	38.843512	17	0.187910772
19	1989	12.96434	0.891261918	60.6806624	89.12619	9.07868	47.922192	18	0.01546247
				http://nucleargulfstream.connect.blogspot.com/				naturalecologies	
Ref: Sh4120707copy24May07theeffectsonlifebychernobylp.xls									

Defining *for our purpose*, % Cell repair as (Mean% Total Radioactive Discharge- Mean % Infant Mortality)/Mean% Total Radioactive Discharge*100, % Infant Mortality and its connection to Nuclear Pollution is studied. The percent values in the above definition are with respect to the maxima of the quantities concerned.
Cell repair in the radioactive pollution context is displayed in the nuclear age but not in the pre-nuclear(1911-45). See Figure PNIM.

The radioactive holocaust

The radioactive discharge is the cause of the perfect holocaust of India Excess Infant Mortalities, Excess Stillbirths and Excess Under Five Mortalities over pre-nuclear age values as shown by inferences from the discussions of the data exhibited here. I consider now excesses of infant mortality over the compound interest rate 1999/1911. This enables us to compare like with like in the nuclear and pre-nuclear eras. The plausibility of cell repairs in the nuclear age is confirmed by the following observations:

1. There is extremely significant correlation of percent excess infant mortality computed by taking the IMR over the pre-nuclear mean rate 1911-45 (values over the compound interest rate (cir) for infant mortality rate between 1999 and 1911) with percent total nuclear discharge from Sellafield and Chernobyl($r = 0.812$, $p = 2.44E\text{-}5$) during 1971-89 but none for percent excess infant mortality (over the above cir) during 1911-29 when in a simulation, the percent total nuclear discharge for 1971-89 is impressed between 1911-29($r = 0.3379$, $p = 0.161$). See Figure IMNAPNA.

2. Figures IMSBMD7189 and IMRMD illustrate the extremely significant exponential regressions between Mean percent Total Radioactive Discharge Strength and %(IM+SB) and % IM respectively:

Figure IMSBMD7189: Extremely significant exponential regression of Percent Infant Mortality plus Stillbirths with the Meanest Dose: 1971-89. India. Less than 20% of the variations unexplained.

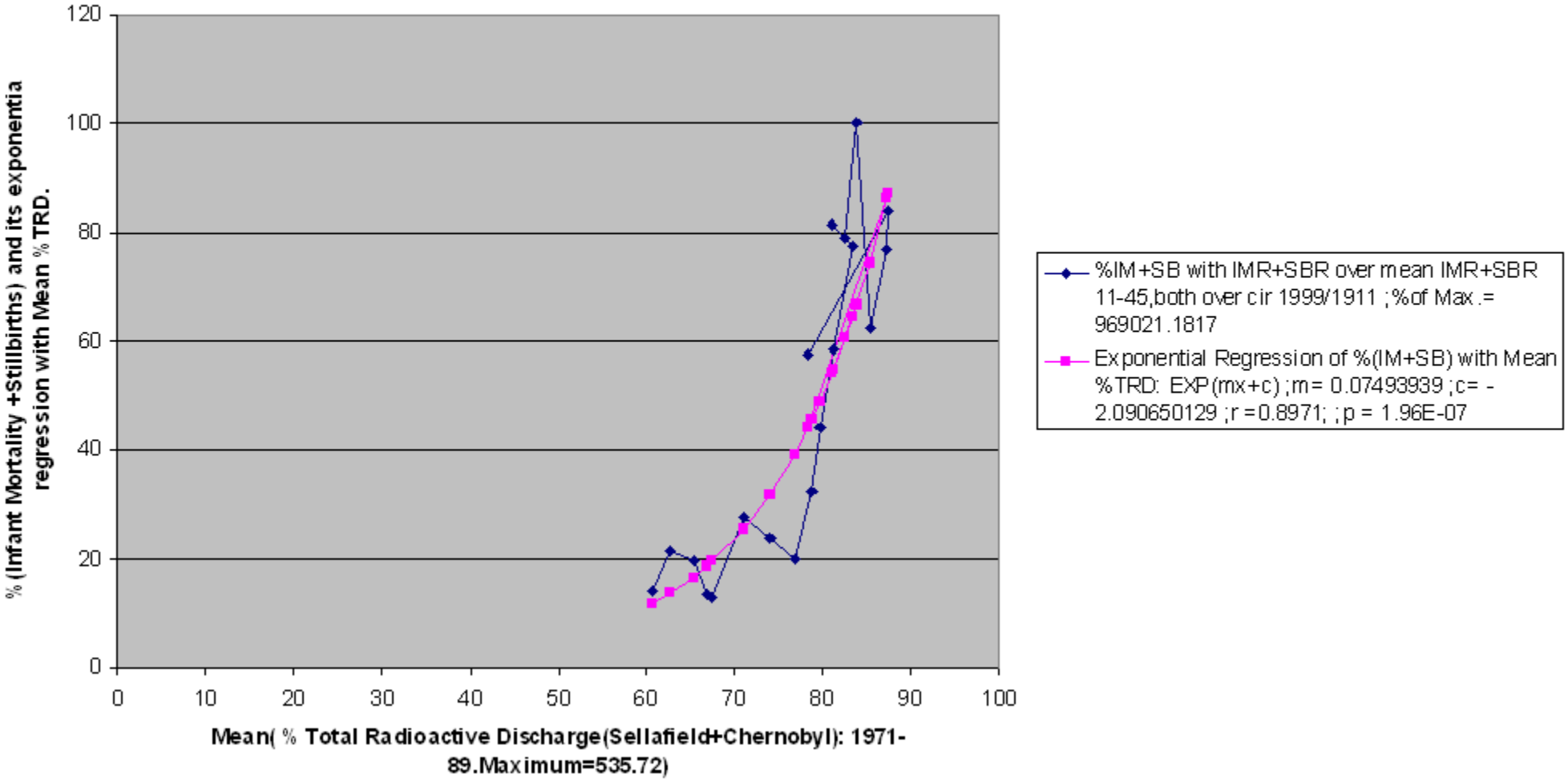


Figure IMRMD: 90 percent of variations of %Infant Mortality(%IM) variations during 1971 to 1989 explained by exponential regression with the Meanest Dose:Mean % Total Radioactivity Discharge(incl. Sr 90 liquid). See legend.

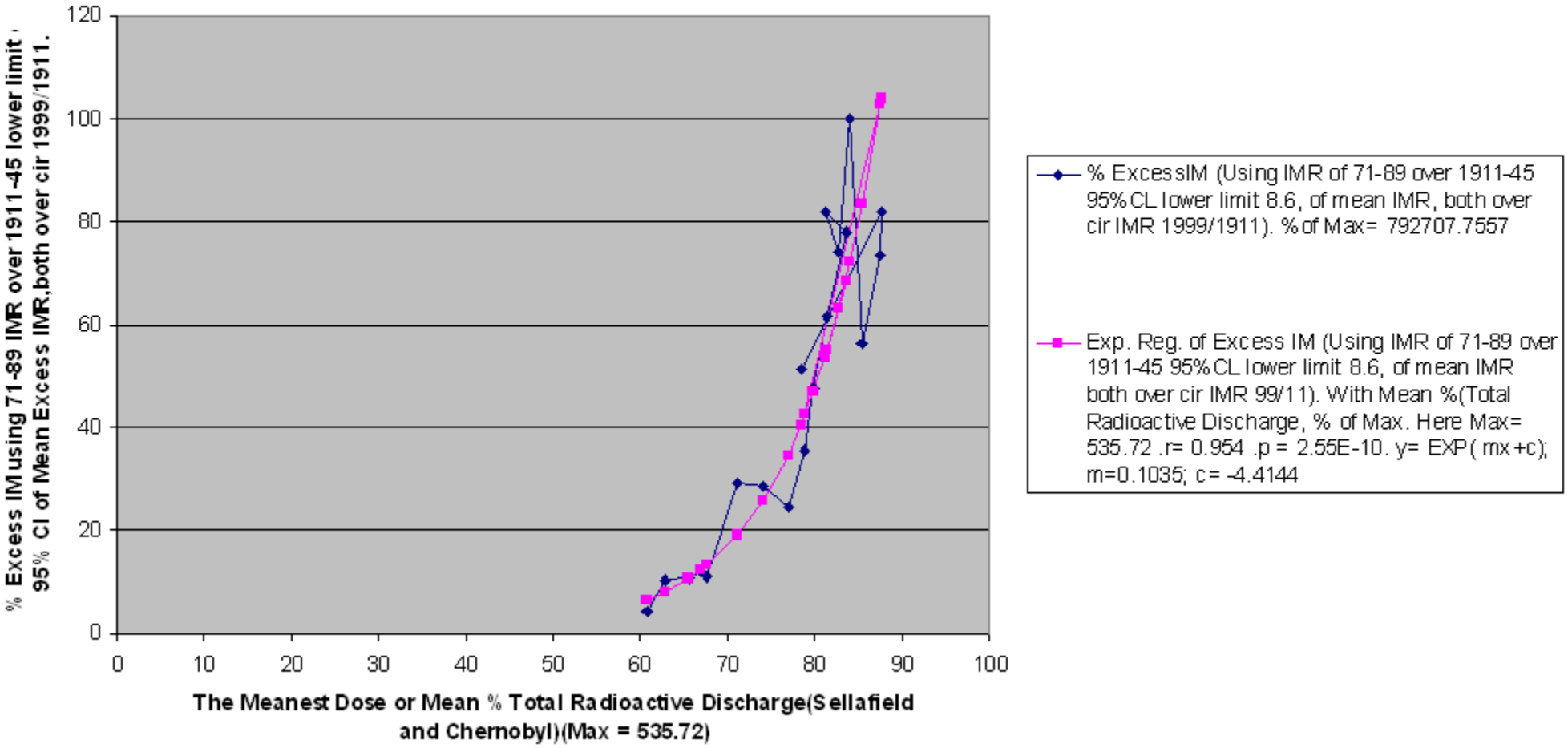
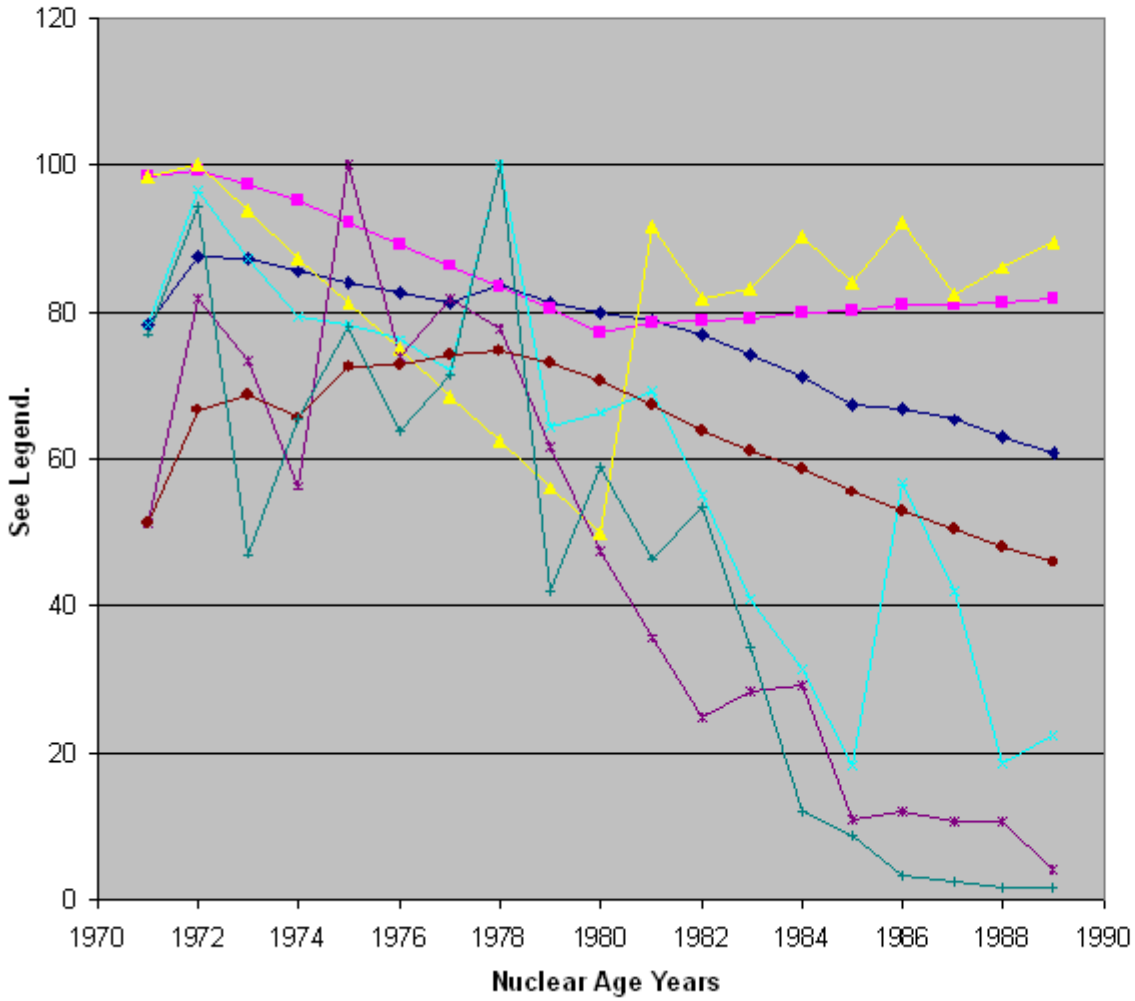


Table F-Test:	% World Infant Mortality, % India Infant Mortality and the Mean of the Meanest Dose					
	all come from the same parent population.					
	Array 1, array 2	Probability,p				
		of variations				
		significantly				
		same(F-test)				
1971-89	%WIM,%IndiaIM	0.14880975	%WIM	Derived from UN Data.		
1971-89	%IndiaIM,Mean%TRD	0.91833279	%India IM	Derived from	1971-89 original India Govt. Data	
1971-89	%WIM,Mean%TRD	0.122794	%TRD	See Table SACREDM for radiation discharge data		
1971-89	Joint p	0.93902161				
Note: The UN Data appears in blocks of five years. This smoothing appears to remove a lot of the truth!						
Partitioning the data into two parts: 1971-85 and 1985-89 brings out the truth:						
1971-85	%WIM,%IndiaIM	0.557957709				
1971-85	%IndiaIM,Mean%TRD	0.469266854				
1971-85	%WIM,Mean%TRD	0.889563318				
1971-85	Joint p	0.974090837				
1985-89	%WIM,%IndiaIM	0.723888568				
1985-89	%IndiaIM,Mean%TRD	0.421244772				
1985-89	%WIM,Mean%TRD	0.64598664				
1985-89	Joint p	0.943428334				
Joint p(Joint p71-85,Joint p 85-89)		0.998534275				
Note: References: 1) UN Data: http://esa.un.org/unpp						
2) India Infant Mortality Data:						
1)Office of the Registrar General,Sample Registration Bulletin,Ministry of Home Affairs, New Delhi;Various Issues.						
2)Office of the Registrar General, Registrar General's Newsletter,Ministry of Home Affairs, New Delhi, Various Issues.						
Ref: Sh4.theeffectsonlifebychernobyl.xls						
			http://nuclearqulfstreamconnect.blogspot.com			

Figure PNIM: Prenuclear, 1911-29 % Infant Mortality in % of its Maximum compared with 1971-89 % Total Radioactive Discharge from Sellafield and Chernobyl. Not significant.



Mean %TRD: Mean (Total Radioactive Discharge % of Max. Here Max= 535.7231642)

Mean Percent 1911-29 Infant Mortality Percent of Max 11-29 . Correlation with Mean % Total Radioactive Discharge, r = 0.51; p = 0.026. . Mean %Repair= -10.45494217 .95%CI: -16.2618043 to -4.64808005

Percent 1911-29 Infant Mortality Percent of Max 11-29 Correlation with % Total Radioactive Discharge, r = -0.115; p = 0.639. And r(Mean%TRD) =-0.186;p = 0.446.

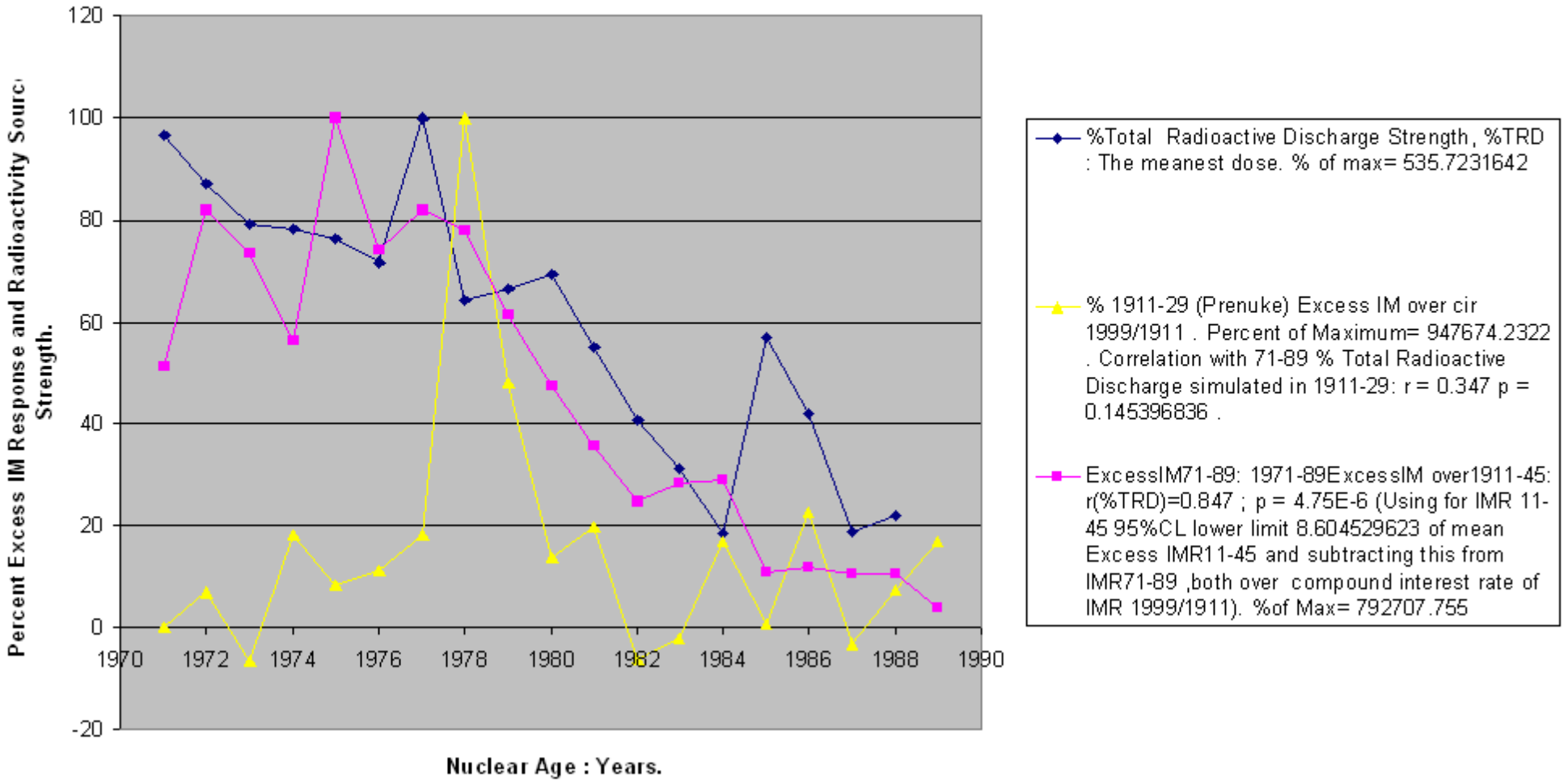
: The meanest dose. % of max= 535.7231642

ExcessIM71-89: 1971-89ExcessIM over1911-45: r(%TRD)=0.847 ; p = 4.75E-6 (Using for IMR 11-45 95%CL lower limit 8.604529623 of mean Excess IMR11-45 and subtracting this from IMR71-89 ,both over compound interest rate of IMR 1999/1911). %of Max= 792707.755

Mean % ExcessIM7189 O1. r(Mean%TRD)= 0.857094692 . (For Info: %Repair: Mean= 18.19; 95%CI: 14.91 to 21.47. Also %Repair's Corr: r(Mean%ExcessIM)= -.7525).

UNSCEAR2000 Sellafield Liquid 90Sr Discharge Percent of Max. Max.= 597 TBQ/y %

Figure IMNAPNA: India Infant Mortality correlates extremely significantly with Source Radioactivity Strength in 1971-89. No significant correlation in 1911-29 with 71-89 radioactivity simulated.



Virtuous or Virtual Behaviour

What is true of purity is true of all other virtues
We are the makers of our own destiny
Truth penetrates even the deaf

Haikus on Internal Contaminants

Poison distributes
As poisson frequency
For zero cell repairs

This distribution
Matches percent frequency
Of source becquerels

A becquerel is
Radioactive decay
Once every second

We ingest inhale
Involuntary poisons
They lodge in our cells

Infant mass murders
World and India's resonate
With Sr90 peaks

Cause? Clearly nuclear!
Strontium is calcium
Poor living Trojan!

Nuke activities
Sellafield or Chernobyl
Perfect murderers!

Policy at fault-
Inviolability:
Body's right transgressed

Nuke activities
Contaminate body cells
Causing foetal deaths

Thus ICRP's
Safety standards are deadly
Pre-DNA stuff.

Concentration on
Cancer as the main outcome
Disregards nature

Governments must change
They must protect the public
Implement the truth!

Till you follow truth
Stop nuke contamination
Life's not from your grace.

You foolish rulers!
Transgenerational crimes
Await due justice.

If you will have laws
Obeyed without mutiny
God Almighty's they!

Else all atom bombs
Will not keep down mutiny
Be just virtuous!

Coal or nuke power
Are perfect mass murderers
To the far future!

Use living power
It's isothermal power
It's natural nuke!

Living energy!
Uses soil, rain, sun, wind
On the land it stands!

Can you make this claim
Of coal or nuke energy?
They destroy all life.

Living power's worth:
Preserves power wastelessly
Produce, use return!

Yogins renouncing
All attachment perform work
By spirit, body

This is always PURE!
This is truly virtuous.
Reverdure your call.

Reforest the earth
Cooperate all of you
To live, reforest!

Perform actions right!
Using least power, urja
Reproduce in health!

Do not disregard
This wheel of life eternal
Else you all perish!

End of Haiku set
By Sarvodaya Mandal's
Member Ashoka.

The narratives of historical discharges from Sellafield: An extract.

1973-1979
() Windscale, Sellafield, UK, Part 2 Source: Greenpeace Books: The Greenpeace Book of the Nuclear Age

During the 1970s, the Windscale reprocessing plant at Sellafield continued to be plagued by a series of incidents and accidents, starting in 1973 with a major setback to plans to increase the facility's capacity to handle spent fuel from overseas. The B205 reprocessing plant for Magnox fuel had gone into operation in the mid-1960s, and was soon found to have excess capacity. The plant's operators foresaw a prosperous future in the reprocessing of spent uranium oxide fuel from the new generation of AGRs and light-water reactors, but B205 was not designed to cope with this material in the form in which it arrived. A disused neighbouring building, B204, was therefore proposed as a treatment plant in which the spent uranium oxide fuel would be dissolved in Butex, an organic solvent, in preparation for reprocessing in B205. After extensive decontamination and rebuilding, this 'Head End Plant' went into operation in August 1969 and ran until mid-1972, when building B205 was shut down for one year for repairs..When the Head End Plant started up again, on 26 September 1973, an unpleasant surprise was in store. Unknown to the operators, previous batches of dissolved fuel had been depositing granules of insoluble radioactive fission products in the process vessel. The heat
produced by these granules had boiled away the last of the liquid and had heated up the floor of the vessel. When the new batch of solvent was poured in, it reacted violently on the hot surface and produced a steam explosion that sent a burst of radioactive gas out into the air of the plant. Alarms sounded, but a report on the incident by the Nuclear Installations Inspectorate (NII) later revealed that these alarms frequently went off for no reason and staff initially ignored them (The NII was set up in 1960 as a result of the 1957 Windscale fire). When senior staff finally realised that there was radioactivity in the 10-storey building, the general order to evacuate was given by personnel running from floor to floor shouting at everyone to get out. During this time, the air was potentially lethal, but since no record was kept of who was working where, it took half an hour to find and evacuate the last of theworkers. In all, 35 members of staff were found to have skin and lung contamination, mostly from ruthenium-106. Inside the building, levels of contamination were found up to 100 times the maximum permitted level. For two years British Nuclear Fuels Ltd (BNFL) continued to claim that all was well and that the plant would soon be back in action, but after four years they had to concede that it could not be used again. The plant that had been designed to handle 300 tonnes of fuel a year only ever processed a total of 100 tonnes. During excavation work in 1975, high levels of radiation were detected in the soil - so high that the driver

of the mechanical digger had to work in a lead-lined cab. It was finally realised, on 10 October 1976, that radioactive water was leaking from the nearby silo B38, in which Magnox fuel cladding was stored. An NII inquiry, published in 1980, found that the leak may have started as far back as 1972 and had resulted in 50,000 curies of radioactivity escaping. One of those involved in the excavation work was 21-year-old David Berry, an engineering student on industrial training. 15 months later he died from a type of lymphatic cancer. At the inquest, no one mentioned the excavation work, and an open verdict was returned. BNFL did not even inform the government of the silo leak until a month after his death. The B38 leak had come at a sensitive time for BNFL. Public outcry at proposals for the expansion of reprocessing facilities and the building of a new Thermal Oxide Reprocessing Plant (THORP) had led to pressure for a public inquiry into the plans, and now Windscale was.on the front pages again. In March 1977, the UK Environment Secretary announced the setting up of the public Windscale Inquiry which, under the chairmanship of Mr Justice Parker, sat from 14 June for 100 days. In the course of the inquiry, during which evidence was given under oath, 194 significant events were revealed to have occurred at the Windscale plant up until 1977. It is known that this list is not exhaustive, but it is more realistic than the 27 incidents that had previously been made public. The inquiry, which was later accused of ignoring all arguments put forward by objectors, found in favour of the proposed reprocessing expansion, although the government bowed to pressure for a parliamentary debate before a decision was taken. The debate ended with a vote in favour of THORP, but the vote against was the largest ever recorded in opposition to a nuclear decision in Britain.In 1979, in the course of sinking bore holes to determine how far the radioactivity from B38 had spread, even higher levels of radiation were detected, so high that they could not have come from that silo. Workers digging the bore hole were undoubtedly contaminated. The radiation was initially ascribed to a spillage some 20 years earlier, but further tests revealed that the leak was recent and continuing. It took almost a year to discover the new source. Despite a 'comprehensive' survey of safety at the Windscale plant in 1976, a tank in the disused building B701 had filled up with high-level radioactive waste accidentally diverted to it in the complex system of pipes. Unnoticed over the years, the liquid had overflowed the tank and filled the sump below. The needle of the sump gauge - which appeared to give a normal reading - was in fact on its second circuit round the dial. By February 1979, the highly radioactive liquid had been leaking from the sump, through the side walls of the building and into the ground, for at least three years. This major leak was the subject

of a damning report by the Health and Safety Executive, who considered that poor management and maintenance were to blame. An NII report in August 1980, which put the leak at 'rather more than 100,000 curies', led to several recommendations, as well as the observation that BNFL had violated several conditions set out in the Sellafield site license. However, no action was taken against them.

14 November 1983
() Sellafield, UK, Part 3 Source: Greenpeace Books The Greenpeace Book of the Nuclear Age

Windscale's worst known accident of the 1980s happened to have witnesses present. On 14 November 1983, four Greenpeace divers from the ship Cedarlea, who were taking samples of silt near the end of the pipe through which radioactive waste is routinely discharged from the plant, suddenly saw the readings on their Geiger counters leap from the normal four to 10 counts per second to more than 500, and then go over maximum on the dial. They had been contaminated by an oily radioactive slick that had apparently come from the pipe. The divers left the area, but more than 24 hours later their clothes and inflatable dinghy were still giving high readings. The NRPB asked them to have a check-up and found traces of radioactive ruthenium on the dinghy. Their clothing had to be destroyed, but the dinghy was decontaminated and returned to them. Five days later, heavily contaminated items were found on the beach. In the meantime an inspector from the Department of the Environment (DoE) had visited the plant and been told of an oil slick, but not that it was radioactive, and the beach had been declared free of pollution. On 24 November, after a review of BNFL's monitoring techniques, the DoE asked for further checks, and these led to the discovery of radioactivity near the surface of the sea and of radioactive debris on the beach. The public were warned against using a 200- m section of the beach. On 9 December, the DoE extended the closed area to 40 km, having found that radioactive debris was being washed up north and south of the pipeline and that contamination levels were higher than they had been the previous month, between 100 and 1,000 times the normal level. It was also revealed that the Ministry of Agriculture, Fisheries and Food (MAFF) had withheld information it had received concerning the contamination of fish and solid waste in the area. In Parliament, the Secretary of State for the Environment announced that, as the leak involved a possible breach of the law on

discharges, the matter was being referred to the Director of Public Prosecutions. Scientists were finding that the rate at which contaminated material was coming ashore, instead of falling, remained at the same level.

On 14 February 1984, reports by the Radiochemicals Inspectorate of the DoE and the Health and Safety Executive detailed the events that had led to the radioactive discharge. There had in fact been three separate discharges - on 11, 13 and 16 November - during washing-out operations. Tanks which have held highly radioactive waste are washed out with solvents, and the mixture of water, solvent and radioactive 'crud' is normally returned to the original tank for separation. The less radioactive watery liquid is then discharged to the sea. However, on this occasion the mixture was passed directly to the sea tanks and the valves were opened for discharge. Alarms alerted BNFL to what was happening, but they assumed that the crud was floating on the surface of the water and discharged some of the water from the tanks to the sea to isolate the crud. The rest of the mixture was then pumped back through the system, but radioactive material stuck to the sides of the pipes, and when BNFL resorted to flushing the pipes out, as they did on the dates above, radioactive crud was discharged into the sea. The Radiochemicals Inspectorate condemned the Sellafield management outright, maintaining that existing controls were inadequate and accusing BNFL of not considering the consequences of discharging highly active particles of waste into the sea and of failing to notify the appropriate government departments as soon as possible, even when there was a potential danger to the public. The beaches remained closed for almost nine months after the incident; until the end of July 1984, when the DoE finally gave the all clear, though monitoring would continue and further contaminated material would be removed. In August, the Director of Public Prosecutions announced that BNFL were to be prosecuted under the Radioactive Substances Act 1960 on two counts and under the Nuclear Installations Act 1965 on four counts, the first time that criminal proceedings had been brought against the British nuclear industry. In June 1985, a jury found BNFL guilty on a number of these charges - failing to keep discharges as low as possible, failing to keep records of discharges, failing to take all reasonable steps to minimise exposure of persons to radiation, and failing to keep adequate operational records (the company had pleaded guilty to this last charge). BNFL were fined L10,000 plus costs. In the meantime, Greenpeace members had been taken to court for defying a High Court injunction and attempting to stop the discharge of radioactive waste by plugging the BNFL pipeline. Greenpeace was fined L50,000 plus costs.

The decade had started badly for the Windscale plant. In February 1981 the Health and Safety Executive had published a report entitled 'Windscale: the management of safety', the.findings of an inquiry instigated by the government in the aftermath of the serious leaks in 1976 and 1978. The report pointed out that almost half of all incidents at British nuclear installations during the preceding two years had occurred at Windscale, and went on to say, 'By the early 1970s the standard of the plants at Windscale had deteriorated to an unsatisfactory level.' Nonetheless, the report expressed confidence that BNFL would succeed in improving safety at the plant.

The first action that BNFL took was, in May 1981, to change the name of the plant from Windscale back to the original name of the site - Sellafield. Critics claimed that this was only done to rid the installation of the negative associations of the name 'Windscale'. If so, the ploy was largely unsuccessful. Within months the newly named Sellafield site began to build its own unenviable reputation.

On 4 October 1981, radiation monitors at Sellafield detected higher than normal levels of iodine-131 in the air, and the plant was shut down for 24 hours when it became clear that a leak of more than 300 times the normal daily release of iodine-131 had contaminated milk on two farms within two miles of the plant. The release was caused by the reprocessing of fuel which had not been left to decay for long enough. Unwisely, BNFL waited several days before reporting the matter, by which time rumours were rife. The contaminated milk was not destroyed but was distributed and sold as usual. BNFL's Director of Information said that members of the public would receive less than 10 per cent of the permitted maximum annual exposure laid down by the ICRP.

On 30 October 1983 Sellafield was again in the spotlight. A Yorkshire Television documentary, entitled 'Windscale - The Nuclear Laundry', alleged that the incidence of leukaemia among children in the nearby village of Seascale was 10 times the national average, and that plutonium dust had been found in houses in Cumbria. Public concern was so great that the then Social Services Secretary, Norman Fowler, set up an independent inquiry under the chairmanship of the former President of the Royal College of Surgeons, Sir Douglas Black, to examine the incidence of cancers around the Sellafield plant. (It was during this period of public anxiety that Greenpeace divers discovered the radioactive slick for which BNFL were taken to court and fined.) The Black Report was inconclusive. Whilst recognising that a link between a confirmed high incidence of cancer, particularly leukaemia, and the presence of the Sellafield plant could not be ruled out, the report did not feel that the connection had been proved.

Sellafield suffered a further series of incidents in 1986. On 23 January, as the result of a faulty.evaporator, almost half a tonne of uranium accumulated in one of the two tanks that discharge diluted waste into the sea. (This accidental accumulation bore a strong similarity to the conditions that led to the 1983 discharge, though BNFL had said that such a thing could not happen again.) BNFL informed the DoE, and it was agreed that, since the plant is allowed to pump three tonnes of uranium into the Irish Sea every year, even this large quantity was still within permitted discharge safety limits. The tank was then emptied directly into the sea. BNFL admitted that it would have been possible to recover the uranium from the tank, but said that both the NII and MAFF had also agreed that the discharge was acceptable. On 1 February a small fire broke out at Sellafield's low-level waste dump site at Drigg. BNFL said that early tests on the smoke showed 'no significant increase in radioactivity'. Then, four days later, for the first time since the Head End Plant accident in 1973, Sellafield was put on 'amber alert', indicating an emergency in one building and a threat to the rest of the plant. The building concerned was B205, next door to the abandoned Head End Plant. Workers had been repairing a valve through which plutonium nitrate was passed for testing, but before the valve could be isolated in a plastic container, a mist of the plutonium compound leaked into the air, and 71 workers had to be evacuated when monitors registered the contamination. The plant was shut down and staff took more than two hours to locate the source of the radioactivity. BNFL were quick to state that the mist had been contained within the building, that there were no implications for the public, and that no one had been contaminated, but the following day it was announced that two workers had been contaminated and that an estimated 50 microcuries may have escaped into the atmosphere. The facts were further revised the following week when BNFL admitted that 11 workers had been contaminated and a further four may have been affected. One worker had received the maximum permitted dosage for a whole year. The changing story did little to enhance public confidence. On 13 February there was a 40-minute fire at Sellafield's Drigg waste dump when low-level waste was tipped into a disposal trench, and on 18 February three workers were contaminated while repairing a 'sludge removal' pipe which had broken and allowed radioactive water to escape. On 1 March a weld on a glove-box failed and seven workers were contaminated with plutonium. Later the same month, the House of Commons Environment Select Committee, in its report entitled 'Radioactive Waste', stated: 'The UK discharges more radioactivity into the sea than any other nation. As the Ministry of Agriculture confirmed to us, Sellafield is the largest recorded source of

radioactive discharge in the world. The anxiety and controversy which this arouses in the UK is well known. It also creates anxiety in other nations. We found, for example, that the Swedes could identify radioactive traces in fish off their coast being largely attributable to Sellafield, greater even than the contamination from adjacent Swedish nuclear power stations. Similar experiences were reported to us by the Isle of Man government. That the UK, with a comparatively small nuclear industry, should be so dramatically out of step is a cause for concern.' The succession of accidents in the first months of 1986 prompted the Health and Safety Executive to launch yet another investigation into Sellafield's safety record, and its report 'Safety Audit of BNFL Sellafield 1986' appeared in October of that year. Building B205, in which the plutonium mist had been released, came under particular scrutiny for never having had a written 'safety case', the basis upon which maintenance, operation and emergency procedures should be founded. In so many words, BNFL were given 12 months to put their house in order, or shut the plant. The year ended with a statement by the Secretary of State for the Environment, in response to a question in the House of Commons, to the effect that the Dail of the Irish Parliament had, on 3 December, passed a resolution calling for the closure of Sellafield.

In January 1987, 12 men were contaminated by a leak of plutonium during the removal of a pressure valve in an area in which fuel rods are made for the Dounreay fast breeder reactor, and in February the reprocessing plant was closed temporarily after a leak of high-level radioactive waste. Ironically, Sellafield has now become a major tourist attraction. In 1987, 104,000 people took up the BNFL invitation to look around the site, and the English Tourist Board made an award in recognition of this achievement. In early 1989 Sellafield won the coveted Best Loo in the Country Award and then, in May 1989, BNFL received the Institute of Public Relations' top prize, the Sword of Excellence, for the company's acclaimed public relations programme 'Restoring Confidence in Sellafield'.

In the same week, an article in Time Out (24.5.89) revealed the contents of a draft letter written in 1987 by the chairman of the CEGB, Lord Marshall of Goring, to the then UK Energy Secretary, Peter Walker. The letter had suggested that Britain's 14 Advanced Gas Cooled Reactors (AGRs) would be forced to a standstill unless the rate of reprocessing at Sellafield was improved and the problems of spent fuel rod storage were solved. At present, all spent British-produced Magnox fuel rods and most of the more modern uranium oxide fuel rods from the AGRs go to Sellafield, where they are put in storage. awaiting reprocessing and the extraction of plutonium.

The long-term plan has been that the plutonium would fuel the projected fast breeder reactors, but the virtual abandoning of the fast breeder programme casts doubt on the need for Sellafield's civil reprocessing capacity. No spent uranium oxide fuel has been reprocessed since the 1973 accident at the Head End Plant, and Sellafield has a huge backlog of spent fuel in its underwater storage pools. These may soon be filled to capacity, forcing the AGRs to stop production. Moreover, the spent rods are steadily corroding and contaminating the water with radioactivity. The CEGB regards the situation as serious enough to warrant building its own dry storage facility, and doubts the viability of underwater storage for long periods of time. In his draft letter, Lord Marshall says 'We are under attack from environmentalists and our critics for storing Magnox fuel in water. The attack is difficult to answer because it is basically
correct...'

End of quote from the Greenpeace Book of the Nuclear Age.

Radioactive Contamination of the Environmrnt by Sellafield.

The Bellona Foundation Report No. 8 Sellafield by Erik Martiniussen (Dec 2003) available as a pdf report
describes Sellafield as follows:
This report describes the historical activity at Sellafield, from the beginning of production of weapons-grade plutonium in the 1950s to today's commercial reprocessing at THORP. It describes the radioactive discharges and contamination caused by these activities. Along the Norwegian coastline today, increased levels of the radioactive substance technetium-99 (Tc-99) are being measured, an element which has a half-life of 213,000 years. The concentrations of Tc-99, particularly noticeable in lobster and seaweed, have made a marked increase over the last few years… Since its opening in 1951, there have been substantial radioactive discharges to both the air and sea from Sellafield. The first discharges came with and were a direct result of the British nuclear weapons programme; exact information concerning the quantity and nature of these discharges is not available.The attitude of Prime Minister Clement Attlee when the first discharge pipe was built is very revealing: he wanted as little fuss as possible about the discharges, as this would draw attention towards the plant.

The Windscale Fire(10th October 1957)

The fire led to two major releases of radioactivity to the air. The first large release occurred when the naturaluranium inside the reactor core caught fire. The second occurred early on Friday, October 11(1957), when the reactor was showered with water in an attempt to extinguish the fire. A huge cloud of steam transported radioactive particles and gases up into the air. The radioactive cloud drifted southwards, over most of England, and continued over Europe. At about 11 a.m. the same day, the fire was under control. Over 20 percent of the reactor core were damaged in the fire.

Efforts have been made to estimate the extent of the radioactive releases. It is believed that the accident led toa release of between 600 and 1,000 TBq of iodine-131,between 444 and 596 TBq of tellurium-132, between 22.2 and 45.5 TBq of caesium-137 and about 0.2 TBq of strontium-90.

"The British Prime Minister at the time, Harold MacMillan, suppressed all technical information concerning the accident. He feared that the conclusions of the accident report - that the accident occurred as a consequence of operator negligence and poor instrumentation, as well as the report's reference to an earlier accident in 1952- would adversely affect the people's confidence in the nuclear energy programme…"

"The Bellona Foundation calls for an immediate halt of the radioactive discharges from Sellafield. Bellona sees no rational reason to produce further amounts of the extremely radiotoxic substance plutonium. As Russia and the United States comply with the terms of the disarmament agreement START 2, the world stockpile of stored plutonium will become very large. Furthermore, continued production of plutonium is inconsistent with efforts to halt the proliferation of nuclear weapons. For these reasons, Bellona calls for an end to reprocessing activities."

On the historical discharges of Sellafield, see their Table 4: Beta discharges from Sellafield in the Period 1971 to 1978:

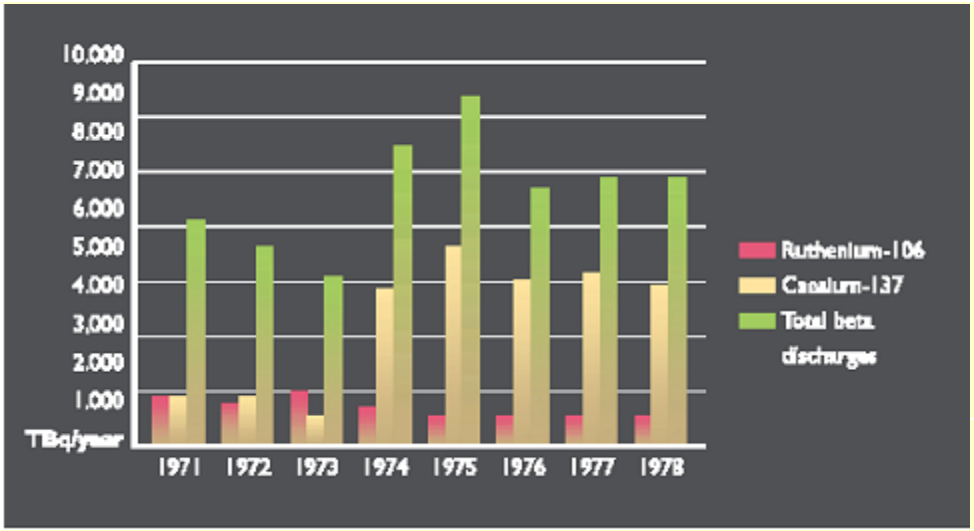


Table 4
Beta discharges from Sellafield in the period 1971 to 1978.

The Bellona Report states further: From 1974 to 1978, Sellafield released more than 40,000TBq of beta emitters and about 200 TBq of plutonium, which is double that of what was released during the Chernobyl accident of 1986. From 1968 to 1978, the plant is believed to have released almost 1000 TBq of alpha emitters. In 1973 alone, the plant released over 180 TBq of alpha emitters. Compared to the French reprocessing plant at La Hague, Sellafield in this period exceeded the French facility's releases of beta emitters by a factor of eight and the highly radiotoxic alpha emitters by as much as 200 times more.

In 1984, 90 percent of the British population's annual radiation dose from nuclear activities was attributable to Sellafield. This figure fell to 60 percent in 1987.

The Report quotes IAEA's recognition of the need for ecosystem protection:

"There is a growing need to examine methods to explicitly address the protection of the marine environment from radiation. The concept of sustainable development places environmental protection on the equal footing with human protection, on the basis that it is necessary first to protect the environment in order to protect human populations"
(IAEA 1999).

There is this chilling anectodal values from the report on the soil, plants and animals
reconcentrating internal radioactivity:

Concentrations of plutonium and americium with higher values than those in the forbidden zone around Chernobyl have been found on several occasions in the area aroundSellafield. In a study of radioactive contamination in Wales carried out by Her Majesty's Inspectorate of Pollution it comes to light that plutonium and americium-241 contamination of the area near Sellafield has been found in concentrations of 17 000 Bq/m 2 and 15 300 Bq/m 2 respectively. These levels of contamination are almost 100 times higher than the values that were measured in samples taken 50 kilometres north of Chernobyl (188 Bq/m 2) after the accident in 1986.
Greenpeace International has made similar measurements. Soil samples that the organisation took in 1998 seven kilometres south of Sellafield were analysed by the University of Bremen and showed concentrations of americium-241 of 30 000 Bq/kg. For purposes of comparison, samples taken 800 metres from the Chernobyl reactor showed concentrations of about 1300 Bq/kg. The Sellafield sample also showed concentrations of cobalt-60 of 40 Bq/kg, while the figures for caesium-137 were 9 400 Bq/kg. On the other hand, samples taken 13 kilometres from the Chernobyl reactor showed concentrations of 10 Bq/kg for cobalt-60 and 7 300 Bq/kg for every kilogram of soil. The soil samples taken by the Environment Agency a few kilometres south of Sellafield at Carlton March showed concentrations of cobalt-60 at 83 Bq/kg. Cobalt-60 gives off powerful gamma radiation.

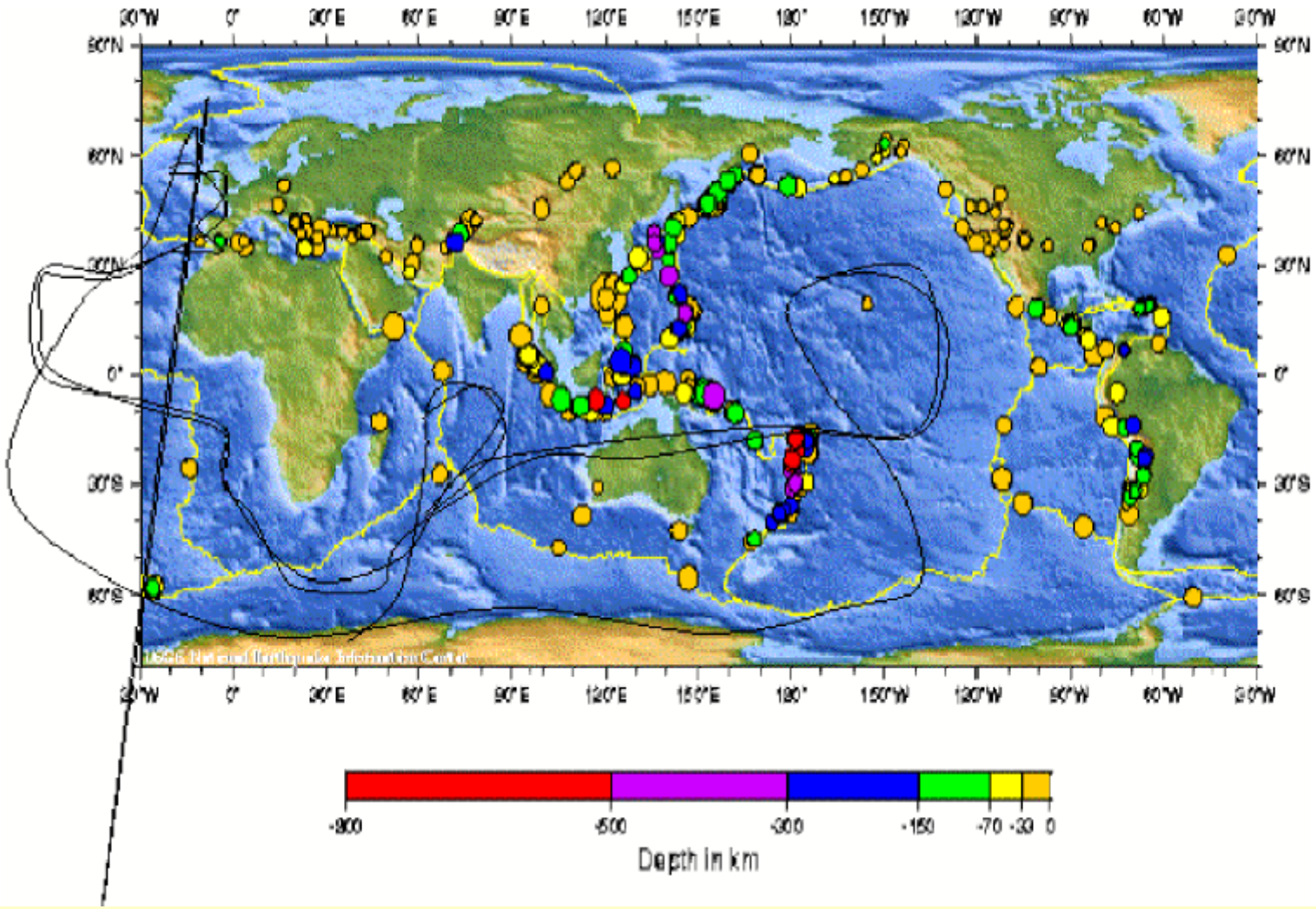
This is relevant to any discussion of India infant mortalities as I show below.

The connection to the thermohaline gradient and the Gulf Stream

The Gulf Stream encounters the cold winds coming off the Arctic and across Greenland.

See the map below. As the two collide, hot moisture evaporates out of the Gulf Stream and is carried by the prevailing winds(including the jet streams) and the Earth's rotation eastward to Western Europe.
The currents of the ocean are all linked like a big Moebius strip in a loop called "The Global Ocean Conveyor Belt."
The double-lined parts of the loop represent the warm surfaces, the best known of which is the Gulf Stream, which flows along the east coast of America into the Indian Ocean touching the Arabian Sea and so on making a loop in the Pacific Ocean as shown. The single-lined curve is the cold water current.The Conveyor is slow-moving - at most, 10cm per second - but its vast extent includes a flow equivalent to 100 Amazon rivers. On average, 30 million cubic metres of water enter the Conveyor every second. Can you tell me the area over which this entrance happens?

The water left behind in the North Atlantic when the warm water evaporates is not only colder but saltier, because all the salt stays right where it is, but in a higher concentration. So the water is much heavier and therefore sinks at the astonishing rate of 20 million cubic metres a second. Over what length of the coasts? As it drops straight down toward the bottom of the ocean, it forms the beginning of the cold-water current flowing southward(See Al Gore.2006.*An Inconvenient Truth. Planetary Emergency of Global Warming and What We Can Do About It*. Rodale. PA. p 151).


30°W
0°
30°E
60°E
90°E
120°E
150°E
180°
150°W
120°W
90°W
60°W
30°W
90°N
60°N
30°N
0°
30°S
60°S
-600
-500
-300
-150
-70
-33
0
Depth in km

The Hypothesis on Radioactive Pollution by Nuclear Activities.

The hypothesis I am now making is that this "Global Ocean Conyeyer Belt" effectively spreads the nuke contamination all over the world. The net result is together with the prevailing winds these pollutants in the moist air and water contaminate the whole globe. Thus the Sellafield radioactivity spread all over the oceans and the seas and onto the beaches and land surface with the help of the Gulf stream and the cold currents, the prevailing winds and the Indian Monsoons. Moreover, the ecological worldwide web assures that the efficient recycling of everything that nature is so adept at goes on along with internal radioactivity. Internal radioactivity is concentrated by orders of magnitude per trophic level. DNA is damaged! The damaged multiply! At the top of the web's trophic levels is man! This interlinkage will then help interpret the infant mortalities observed in synchronism with the nuclear contamination of the oceans and the atmosphere as can be gleaned from the Sellafield report above by Greenpeace and the Bellona Foundation's report. We thus notice that whenever the Sellafield/Windscale accident occurrences were taking place(1971-1978,1983-1984), the Indian Infant Mortality registered increases, just like for the atmospheric tests and Chernobyl accident(See Figure IMIANT, below).

Indian monsoons and
The Global Conveyer Belt
Interconnected!

Together with nukes
What a deadly concoction:
Indian infants killed

Atmospheric tests
And Sellafield Chernobyl
Perfect murderers!

Andrei Sakharov!
Does radioactivity kill?
Internally yes

Does dose internal
Have any dear meaning left?
Count deaths in millions.

Still man's greed wants more
Nuclear necromancy
Global warming fraud!

Greed's toll: have a peep:
Millions of Indian infants
IMINA:

Table: IMINA: Infant Mortalities in India due to Nuclear activities: 1945-99.					
S.No.	Description			Units	Figures.
1	Mean %im over'45 %im			%	**46.8590702**
2	Infant Mortality/y	Absolute numbers/y:1946-99:		Numbers.	2451483
3	Infant Mortality/y	Absolute numbers/y:1911-45.		Numbers.	2125998
4	Diff/y 46-99 over 11-45:			Numbers.	325485
5	Number of years 46-99:			Numbers.	54
6	IM due to	Atm.nuke tests		Numbers.	17576154
7	Total:all nuke activities from 45-99:			Numbers.	22676601
8	Due to other	nuke activities	from 45-99:	Numbers.	5100447
9	Due to	Chernobyl		Numbers.	579200
10	Due to	Windscale,	Sellafd etc.	Numbers.	4521247
11	Due to Normal Operations of nuke fuel cycle:			Numbers.	1500000
12	Due to Windscale,Sellafield and other accidents(excl. Chernobyl)			Numbers.	3021247
Reference link:					
http://indiaimrandnucleartests.blogspot.com/					

See the figure IMIANT below and gasp at the resonance at 1963 of dose and deaths. Only Infant mortality rates have been studied while Still births have not been taken into account. Does dose have a meaning: Internal Radioactivity! Nuclear necromancy never again!
See http://nuclearnecromany.blogspot.com/

The various nuclear disaster years together with the annual excess infant mortalities during the nuclear age over the mean infant mortality during the pre-nuclear years 1911-45 are indicated in Figure NAAEIMPN by an explosion sign:
The global conveyer belt is working ! Stop nuclear pollution now!

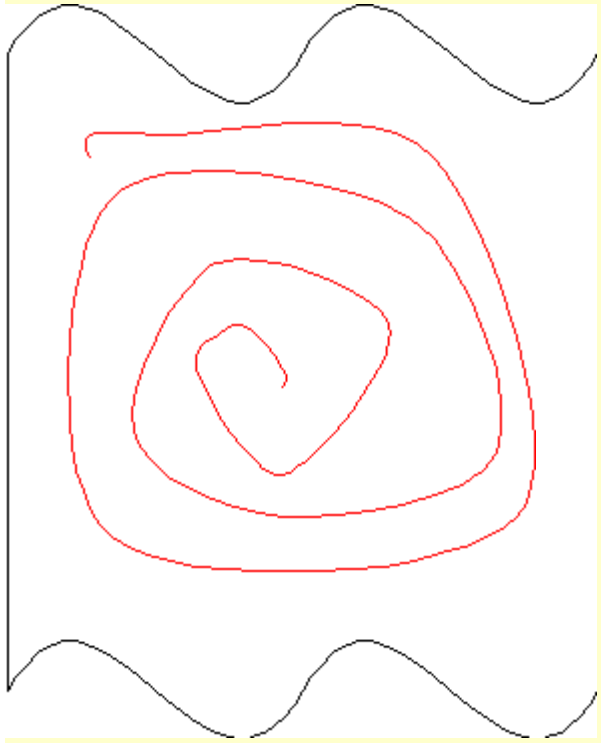
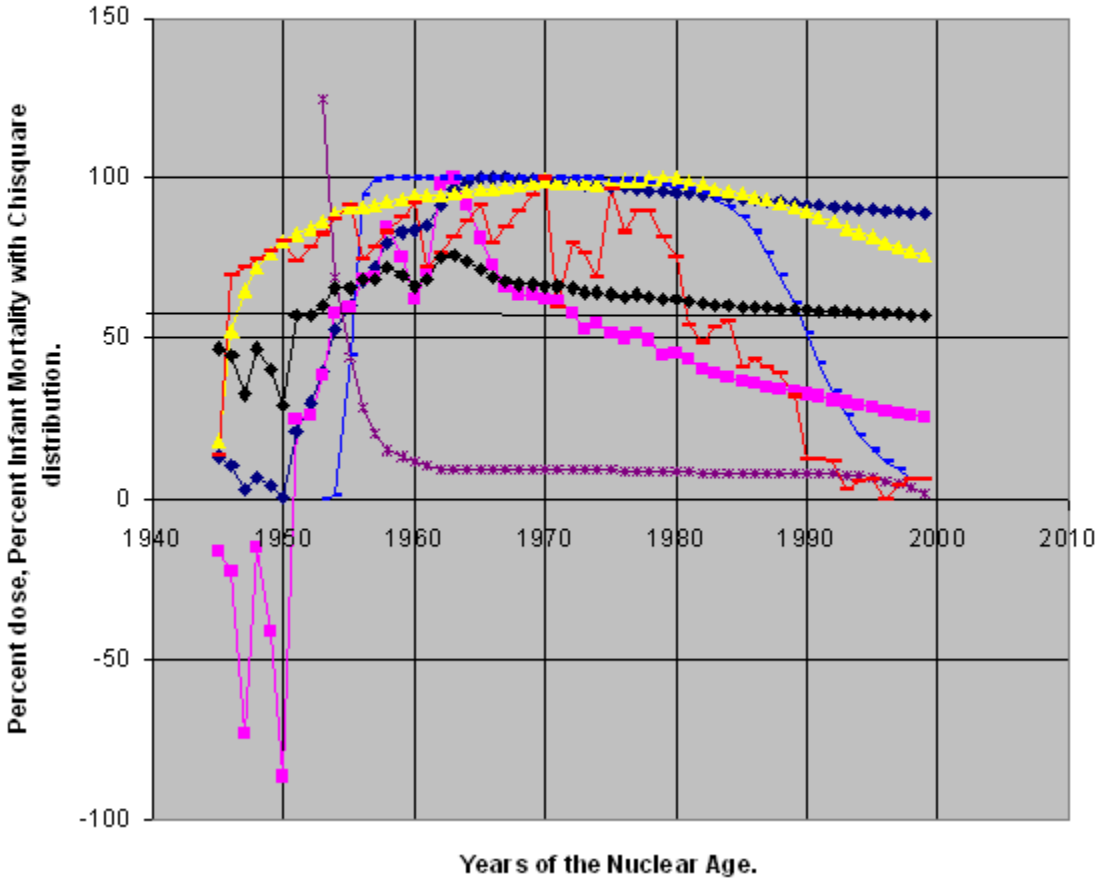
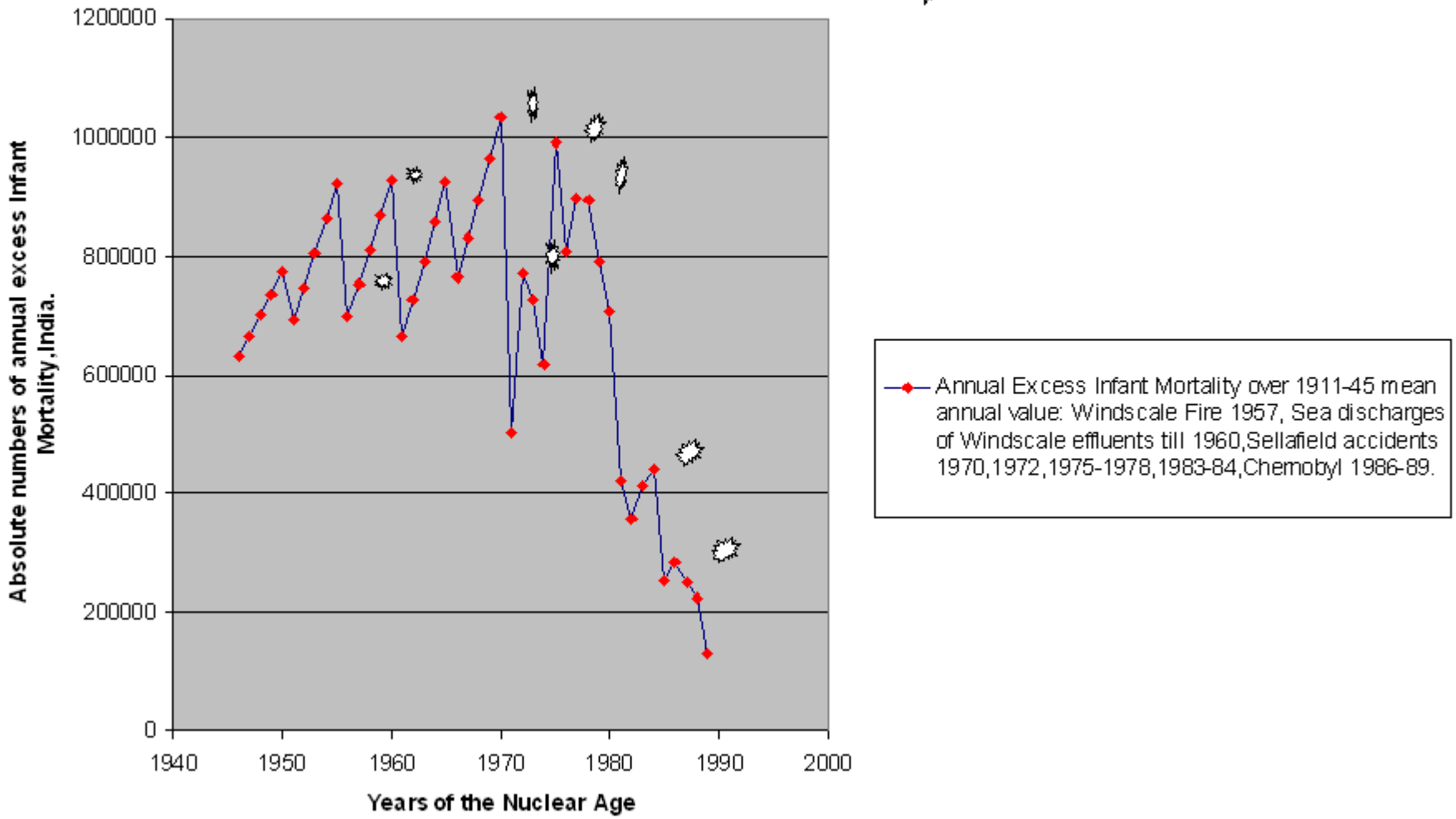


Figure IMANT: The lasting cause of high infant mortality in India, from 1945 peaking at 1963, is atmospheric nuclear tests peaking at 1963. The dose and infant mortality in percent resonate. See legend for details.



- Percent LN Percent MeanCumulativeDose: Percent of respective maximums.E(y).
- Percent LN of Mean Percent Dose,Percent of respective maximums.
- %Mean Cumulative value of (Mean Cumulative (IM-IMMin))(=mcim)/Max(mcim)*100, O(y). IM=Yearly Infant Mortality
- X^2=Chisq Sum.The mean observed IM and the mean internal radiation dose, in percent of their peaks, are indistinguisahble.Further,the log regression is extremely significant,r=0.696,p=3.5E-9.
- %p(X^2).
- im=IM-IMMin. IMMin= 1827574. immax= 1331457. Value: im%=(im/ immax)x100.
- Log Reg: %im with Dose. m= 5.44478; c= 51.9044. %im=mLN Dose+ c.

Figure NAAEIMPN: Nuclear Age Annual Excess Infant Mortality of India over 1911-45 mean annual value: Sea discharges of radioactive effluents by Sellafield throughout with heavy discharges during accidents.A disaster year has an explosion sign:



The biased media blitz in India

It is biased, totally towards going nuclear. I detect a vested interest. How else can you explain the media ignoring overwhelmingly the anti-artificial nuclear view which is based on sound science? Let me go from Jon Palfreman's work: A Tale of Two Fears: Exploring Media Depictions of Nuclear Power and Global Warming. 2006. Palfreman Film Group Inc., Lexington, M. **He assumes** that the public views that nuclear power's benefits and risks are separate from those of Nuclear Waste Disposal which the public feels has no utility value. He then cites the French Nuclear case and the US case. He argues that the French **need** nukes because they don't have fossil fuel resources within their borders and hence the citizens have no opposition to it. Obviously he has not done his homework. See below. According to him, in the USA, people in Nevada separate the military use of sites in Nevada as a waste dump site as what they cannot do anything about, whereas Yucca Mountain is something they may be able to prevent being used for civilian nuke waste disposal. Being of the specialist opinion that nuke generation has utility value and today waste does not, he tries to put forward to the citizens a policy for acceptance or rejection of nuclear programmes where later on by some means, a use for the wastes is found, say by transmutation. He finds that there is a shift in favour of nuclear when this alternative is discussed, with the wastes being kept on watch (by costly guard of course for an uncertain period of time). This is another way of subtle opinion building by media! Is nuclear a mature technology? Where a lot of nuclear capacity has been built as in the US or in Japan or France they have no option but to find ways of keeping the nuke waste isolated from the biosphere (in normal operations they do pollute the biosphere), even if they have to supply power for hundreds of thousands of years for their cooling! **And this makes nukes a net consumer of energy!** See my work on energy audit of the USA's nuclear programme and of India's (in the cited URL below). The energy audits of the Japanese and the French nuclear programmes are also similar and I have done the homework!: Net consumers of energy. Amory B Lovins and John H Price had warned about this in Non-Nuclear Futures: The Case for an Ethical Energy Strategy.1975. Ballinger.1980. Harper-Colophon. In India, where nukes form a small part of electricity capacity today (Two percent), it makes absolutely no sense to go full steam ahead with a nuclear power programme: We must not separate the waste from the nuke generation, perceiving benefits for the latter (have them!) and

none for the former (wish the wastes away by say coming generation's ingenuity!). When we do not externalize a portion of the nuke fuel cycle process, we will find that there is absolutely no utilitarian value for nukes. Herein lies a fatal flaw of modern civilization: Specialization: When it suits the vested interests they externalize portions of their process so that a net benefit shows! Nuclear power programmes or any programme for that matter in modern cultures do (does) not value the land at all! Thus the nuke fuel cycle ignores the sunlight that falls on the land, the wind that blows over the it, the rain that falls on it, the soil on which it stands except as a support. When the land is forested to an extent of about 20 kg dry biomass density per square kilometer, it corresponds to a power flow of 1200 MW/km^2; it is a multi-input multi-output infinite efficiency system in a normal civilization of recycling all that is taken from the land. In contrast the nuclear fuel cycle's power flow in the production and consumption of goods and services is a measly 4 MW/km^2! A net consumer of energy of infinite proportions, because the fuel is a capital and not income. We are talking of the time constant of the sun, not of uranium. You must live out of your income and not eat into your capital! Our life style must change from the modern culture of production, consumption and waste to production, consumption and **return** *as in nature*. **Using the fusion nuclear energy of the sun via living energy. The sun is safely situated, readymade some 150 million km away from the earth. This normal way of life has been our tradition for thousands of years when we respected nature and lived in harmony with her. Our sages had discarded the modern option! That's history with the ignorant imperialist onslaught continuing. But we are at a crisis now and it is easy for us in India with our vast human population to modify our life style to include RETURN: Living Energy enjoyed in kindly use. Read my URL: http://nuclearnecromany.blogspot.com/**