

WALHI



NO NUCLEAR !!!

We (Indonesia) No Need NPP

(Building the People's Resistance Against
the Development Plan for nuclear power
plant in Indonesia)

by:

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**Wahana Lingkungan Hidup Indonesia
(WALHI) / Friend of the Earth Indonesia
(FoE Indonesia)**

Presented in the National Meeting of the Movement for Peace,
Human Rights, Environment, July 30 to 31, Tokyo - Japan



Where Is Indonesia





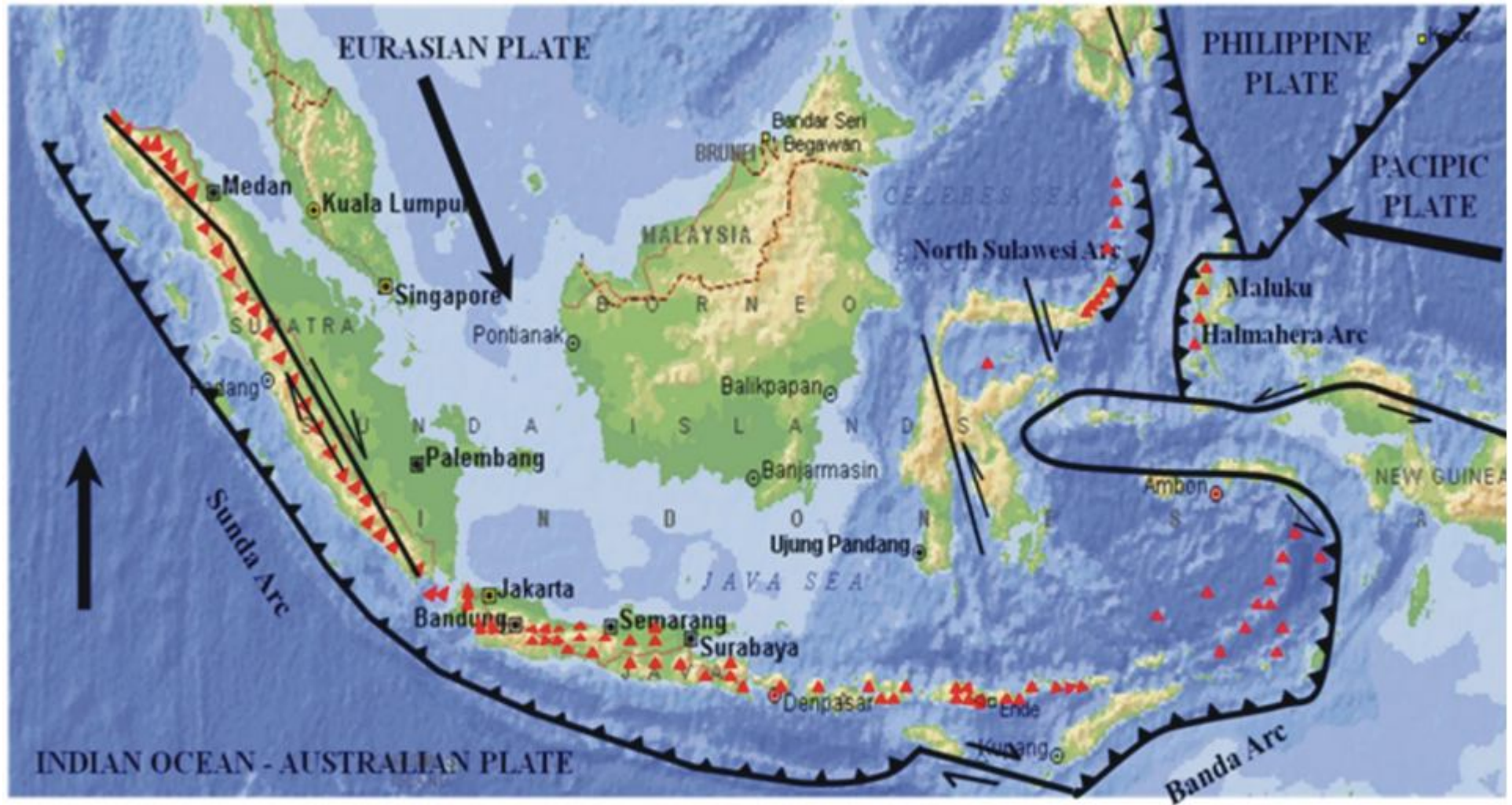
Indonesia



- 17,508 islands that cut through the equator
- The third largest of population in the world where the population is spread over 33 provinces and 430 districts of the city (in 2010 reached 237.6 million people)
- World's Largest Ethnic Groups (1.128 ethnic)

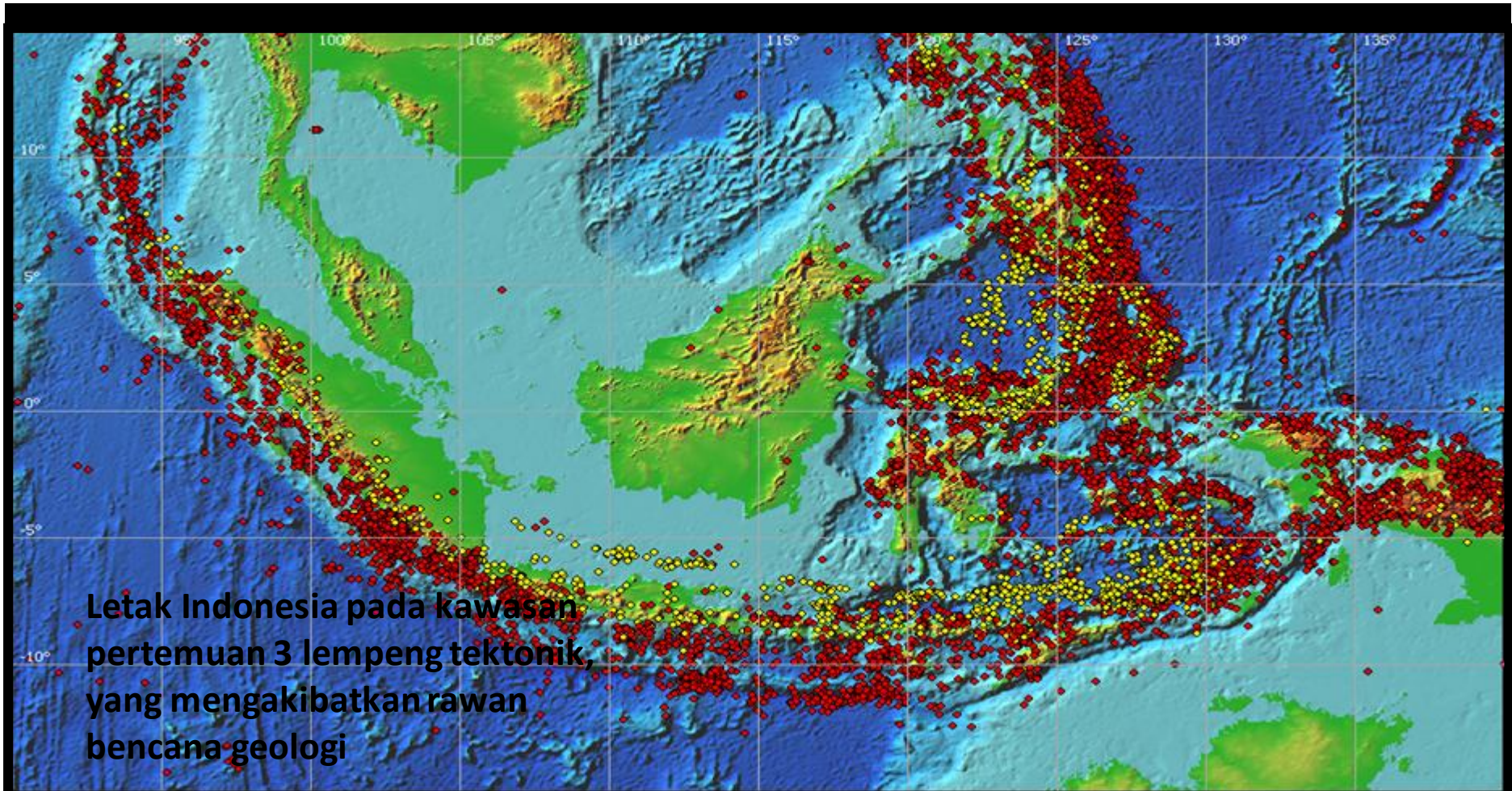


Tectonic and Active Volcano Framework





Earthquake Challenge



Letak Indonesia pada kawasan pertemuan 3 lempeng tektonik, yang mengakibatkan rawan bencana geologi

The frequency of earthquakes in Indonesia
(average of 450 earthquakes / year)



CADANGAN DAN PRODUKSI ENERGI

NO	ENERGI TERBARUKAN/	SUMBER DAYA (SD)	KAPASITAS TERPASANG (KT)	RASIO KT/SD (%)
1	2	3	4	5 = 4/3
1	Tenaga Air	75,670 MW	5,705.29 MW	7.54
2	Panas Bumi	28,543 MW	1,189 MW	4.17
3	Mini/Mikro Hydro	769.69 MW	217.89 MW	28.31
4	Biomass	49,810 MW	1,618.40 MW	3.25
5	Tenaga Surya	4.80 kWh/m ² /day	13.5 MW	-
6	Tenaga Angin	3 – 6 m/s	1.87 MW	-
7	Uranium	3.000 MW (e.q. 24,112 ton) for 11 years ^{*)}	30 MW	1.00

^{*)} Hanya di Kalan – Kalimantan Barat

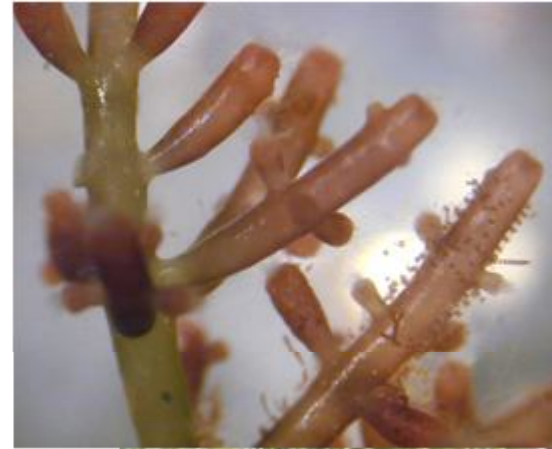
No	ENERGI TAK TERBARUKAN	SUMBER DAYA (SD)	CADANGAN (CAD)	RASIO SD/CAD (%)	PRODUKSI (PROD)	RASIO CAD/PROD (TAHUN) ^{*)}
1	2	3	4	5 = 4/3	6	7 = 4/6
1	Minyak Bumi (<i>miliar barel</i>)	56.6	7.99 ^{**)}	14	0.346	23
2	Gas Bumi (<i>TSCF</i>)	334.5	159.64	51	2.9	55
3	Batubara (<i>miliar ton</i>)	104.8	20.98	18	0.254	83
4	<i>Coal Bed Methane/CBM (TSCF)</i>	453	-	-	-	-

^{*)} Dengan asumsi tidak ada penemuan cadangan baru

^{**)} Termasuk Blok Cepu



Biofuel Potential





Tabel 4.12 Kebutuhan Tambahan Pembangkit Total Indonesia (MW)

Tahun	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
PLN											
PLTU	3,291	4,090	875	1,439	2,295	10	1,200	200	7	3,007	16,414
PLTP	10	55	78	143	203	20	23	3	20	20	575
PLTGU	194	820	393	350	240	-	700	1,500	2,250	-	6,447
PLTG	105	-	225	50	-	65	235	800	1,065	1,280	3,825
PLTD	11	14	12	48	44	42	34	16	33	50	303
PLTM	14	6	6	14	8	4	5	8	1	-	66
PLTA	-	-	10	300	1,000	65	103	715	1,311	818	4,321
Total	3,625	4,985	1,599	2,344	3,790	206	2,299	3,242	4,686	5,175	31,951
IPP											-
PLTU	26	891	2,649	1,822	2,584	2,460	2,050	1,630	1,410	745	16,267
PLTP	-	3	178	857	2,450	50	330	392	510	645	5,415
PLTGU	290	110	30	-	120	-	-	-	-	-	550
PLTG	10	10	80	-	-	-	-	-	-	-	100
PLTD	-	22	-	-	-	-	-	-	-	-	22
PLTM	25	31	91	42	6	2	1	1	1	-	201
PLTA	180	195	-	-	157	90	310	30	-	-	962
Total	531	1,262	3,028	2,720	5,317	2,602	2,691	2,053	1,921	1,390	23,516
PLN+IPP											-
PLTU	3,317	4,981	3,524	3,261	4,879	2,470	3,250	1,830	1,417	3,752	32,681
PLTP	10	58	256	1,000	2,653	70	353	395	530	665	5,990
PLTGU	484	930	423	350	360	-	700	1,500	2,250	-	6,997
PLTG	115	10	305	50	-	65	235	800	1,065	1,280	3,925
PLTD	11	36	12	48	44	42	34	16	33	50	325
PLTM	39	38	98	56	13	6	6	9	2	-	267
PLTA	180	195	10	300	1,157	155	413	745	1,311	818	5,283
Total	4,156	6,248	4,627	5,064	9,107	2,808	4,990	5,296	6,607	6,565	55,468



Electrification Ratio

Electrification Ratio	Number of Areas
Below the electrification ratio (<64%)	16
Above electrification ratio (> 64%)	14

- Inequality (gap) between energy usage needs with the supply of energy produced is still happening.
- Electrification ratio of electrical energy usage in Indonesia reaches 67% (ESDM, 2009).
- This means that 33% of households in Indonesia have not been electricity.



Nuclear Power Plant in Indonesia

- 1954, the establishment of State Committee for the Investigation of Radioactivity, investigate the possibility of radioactive fall-out in Indonesia from nuclear weapons tests in the Pacific Ocean.
- 1972, established the Preparatory Commission for Construction of NPP (KP2PLTN) by the National Atomic Energy Agency (BATAN) and the Department of Public Works and Power (Department PUTL).
- 1975, in a seminar in Karangates, East Java, by BATAN and PUTL Department, result in a decision that the NPP will be developed in Indonesia.
- Furthermore, after conducting several studies on multiple locations of nuclear power, it was decided that in Muria Peninsula is the most ideal locations are proposed to be used as the location of the first nuclear power plant in Indonesia.



Nuclear Power Plant in Indonesia (2)

- 1978, implementation of a feasibility study on the introduction of the first nuclear power plant with the help of the Government of Italy.
- 1985, work began by conducting a reevaluation and renewal studies have been done with the help of the International Atomic Energy Agency (IAEA), the Government of the United States through Bechtel International company, a French company through the SOFRATOME company , and the Government of Italy through the CESEN company.
- 1989, the Government of Indonesia through the National Energy Coordinating Agency (BAKOREN) decided to conduct a comprehensive feasibility study included in-depth investigation of the potential sitting nuclear power plant in Muria Peninsula, Central Java. Implemented under the coordination of BATAN, with direction from the Technical Committee of Energy (PTE), the Department of Energy and Mineral Resources, and carried out jointly by several other agencies in Indonesia.



Nuclear Power Plant in Indonesia (3)

- In August 1991, an agreement on a feasibility study was signed by the Minister of Finance of the Republic of Indonesia with the NEWJEC.Inc Consultant Company. A work agreement is a term of 4.5 years and includes the implementation of the work on site selection and evaluation of nuclear power plants, as well as a comprehensive feasibility study regarding possible construction of various types of nuclear power plants with total power that can reach 7.000 MWe. Most employment contracts are used to perform technical work on the selection and site evaluation studies in nuclear power plant sitting locations in Muria Peninsula. Nuclear power plant sitting study was finally completed in 1995. Overall, the study site in Muria Peninsula nuclear power plant was completed in May of 1996.
- The Indonesian government issued Law no. 10/1997 regarding Nuclear, among others, separating the functions of execution carried out by BATAN and regulatory functions performed by the (Agency for Nuclear Power or BAPETEN).



Nuclear Power Plant in Indonesia (4)

- 1998, the government reevaluate the need (demand) and supply of energy, especially electricity in Indonesia. Created energy planning studies and long-term national electricity "Comprehensive Assessment of Different Energy Resources for Electricity Generation in Indonesia" (CADES) conducted and completed in 2002 by a National Team under the coordination of BATAN and BPPT (Agency for the Assessment and Application of Technology) with IAEA support.
- Based on the study has been done above the expected statements from all parties associated with the development of national energy that the use of nuclear energy in Indonesia is required, and it is necessary to begin construction of a nuclear power plant (NPP) around 2010, so it can already be operated commercially in about 2016.



Nuclear Power Plant in Indonesia (5)

- 2010, Post-strong community resistance that occurs in Muria, BATAN looking for new places to build nuclear power plants and parried with the wishes of some regions such as Bangka, West Kalimantan, East Kalimantan and Gorontalo to build nuclear power plants.
- Then by Bangka Belitung BATAN is considered a decent place to built nuclear power plant with the criteria as a safe area to earthquake.
- A visit from the Croatia Embassy to the Governor Babel in June 2011 with the purpose of discussing plans to build nuclear power plants.
- Until now BATAN continue to promote the development of nuclear power plant in Indonesia.



Muria Peninsula





INDEKS KERAWANAN BENCANA DI PULAU JAWA

Level Kabupaten



Legenda :

- Batas Propinsi
- Batas Kabupaten

Kelas Rawan Bencana :

- Rendah
- Sedang
- Tinggi
- Tidak Ada Data



BADAN NASIONAL PENANGGULANGAN BENCANA (BNPB)
Jl. H. R. Rasuna Said, Jakarta 10119 Indonesia
Telp. (021) 261-0000, Fax. (021) 261-0000

© Pola : 2009-03-01_keraw_bencana_jawa_kabwil_BNPF

Dibuat oleh : WIGUN
Proyeksi : Geografis
Grafik Line : Lembar/Bujur
Ekskusi : BNPB 01 Maret 2009

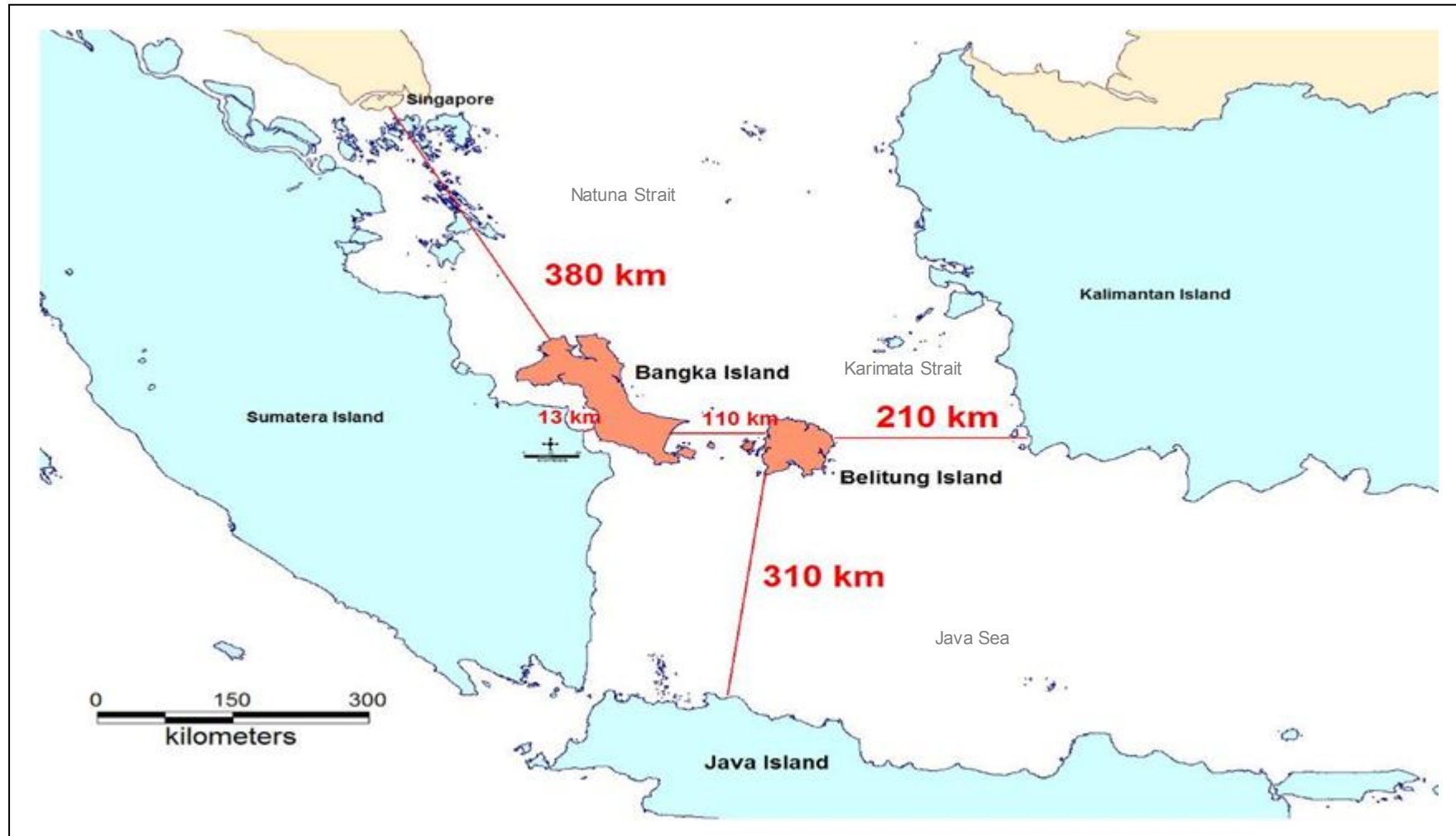
Sumber :
1. Batas Administrasi : SPS 2007
2. Data Bencana BNPB Tahun 2000-2007
3. Data Kapasitas Produksi SPS Tahun 2000



Bangka Belitung

position of geography

104° 50' - 109° 30' E and
0° 50' - 4° 10' S





Earthquakes Epicentrum BABEL

Nearest Distance to BABEL Significant Earthquake Epicenter

(source: USGS, 2008)



No	Waktu Kejadian	Lokasi	M	Kedalaman	Jarak Terdekat ke BAbel
1	25 Juli 2004	1 (Jambi)	7.3	582 km	P. Bangka 145 km P. Belitung 400 km
2	15 Pebr. 1994	2 (Lampung)	7.0	23,1 km	P. Bangka 302 km P. Belitung 415 km



Problem Statement

- Energy crisis in Indonesia not because of lack of energy resources but because of unequal access to and control over energy resources among the poor countries / developing countries with advanced.
- NPP in response to the energy crisis is a fatal mistake of thinking because of the construction of nuclear power plants are very big risk to humans and the environment.



NPP Not Solution

- Indonesia is the region (80%) are prone to disasters both natural disasters and ecological disasters.
- Price NPP is currently more expensive than other power plants.
- Magnitude of the potential for horizontal conflict because of the sharp differences in viewpoint between the accepting and rejecting nuclear power plants.
- Indonesia does not have an economical uranium to be mined.
- There is no guarantee of long-term uranium imports.



NPP Not Solution (2)

- BATAN has not managed to master the uranium fuel technologies
- NPP to be built will only meet the energy needs of electricity by 2% of the total electrical energy demand in Indonesia
- Nuclear waste which is hazardous and radioactive waste can not be explained up to 200 years.
- NPP is a false solution fulfilling the world's electrical energy.
- Up to now supply electric energy from nuclear power plant needs only 15% of the World



NPP Not Solution (3)

- NPP has produced over 200,000 tons of waste and toxic materials and threaten the safety of humans and other living things
- Location of nuclear power is the weakest point of the possibility of terrorist attacks
- Indonesia has the potential of renewable energy that are not at risk and clean
- Prone to misuse of nuclear energy



The role of WALHI

- Organizing and strengthening people's capacity
- Campaign and building a network
- Policy Advocacy



TOLAK PLTN - Aktivis WALHI melakukan aksi di Bundaran Untan untuk menolak rencana pengembangan energi nuklir di Indonesia, Selasa (26/4). Mereka juga menuntut kepada presiden di Asia Tenggara untuk menggunakan energi terbarukan yang ramah lingkungan dan terjangkau.

Walhi Tolak Wacana Pembangunan PLTN

PONTIANAK, TRIBUN - Wahana Lingkungan Hidup Indonesia (Walhi) Kalimantan Barat menolak wacana pembangunan Pusat Listrik Tenaga Nuklir (PLTN) terutama di provinsi itu yang memiliki sumber Uranium berlimpah di Kabupaten Melawi.

"Reaktor nuklir adalah sumber tenaga listrik yang kotor dan berbahaya dan akan selalu berpotensi menimbulkan dampak yang fatal akibat kombinasi kekhilafan maupun kesengajaan manusia, kesalahan dalam rancang bangun, serta bencana alam," kata Kepala Divisi Riset dan Kampanye Walhi Kalbar, Hendrikus Adam di sela-sela aksi Tolak Nuklir di Kalbar, di Pontianak, Selasa (26/4) sore.

Menurut dia, banyak terjadi bencana yang bersumber dari kegagalan pengelolaan reaktor nuklir di sejumlah negara. Bencana tersebut menimbulkan dampak dalam jangka panjang, cakupan yang luas serta berbiaya sangat besar.

"Peringatan dari berbagai bencana nuklir juga kiranya penting sampai pada masyarakat di daerah ini dan lebih khusus sebagai peringatan bagi Pemda Kalbar yang sedang mempersiapkan diri untuk PLTN," kata dia.

Walhi Kalbar meminta Presiden selaku kepala negara beserta pihak terkait promotor energi nuklir (Batan, Rappeten, dan Kementerian Riset dan Teknologi) menghentikan rencana pembangunan maupun pembangunan energi nuklir melalui PLTN di Indonesia.

Kemudian, Pemerintah Daerah tidak memberi ruang dengan menghentikan rencana pengembangan energi nuklir di Kalbar.

Pemerintah tidak melaksanakan pembangunan PLTN, tetapi mengalihkan investasi yang ada pada pengembangan sumber-sumber energi terbarukan (anti

Bersambung ke Hal 15

Walhi Tolak Wacana Pembangunan Sambungan Hal. 9

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WISATA / Gedung pertemuan saat sidang Badan Tenaga Nuklir Nasional (BAPETEN) di Desa Bolog, Kecamatan Limbung, Japura, saat di-
segit-van-jawa-substrans-pada-25-Februari-2016-(4)



Who performed at the national resistance

- WALHI, Human anti-nuclear, IESR, GP and several other NGOs as well as specialist anti-nuclear campaign rally together to reject nuclear power plant
- Periodically conduct discussions and campaign and support any campaign activity of nuclear decline in the Pacific Islands, West Kalimantan and Muria.
- Efforts to build a good opinion by using print and electronic media as well as seminars and discussions that built an impact on public rejection of nuclear power plants.
- Campaign against BATAN lie of Nuclear also became an important momentum where BATAN always provide information that is incomplete and tend to lie about the NPP.
- Mobilizing support to community leaders, religious leaders and political elites.
- The urge to the government through letters, actions and campaigns Lobbying to Parliament.
- Creative acts of nuclear decline.



Resistance who performed at local

- WALHI provide guidance to the community Balong and Babel to reject nuclear power plant
- Building networks at the local level and mobilize support for community leaders, religious leaders, students and youth at the local level
- The emergence of local initiatives to build the fight with such complacent, Muria Institute, Society pond in Central Java and the Coalition for Nuclear Decline in Babel and West Kalimantan as well as actions in other areas
- Encouraging Action reject nuclear power plant in Semarang, including action that followed over 7000 people; sealing action against the planned building as a plant in Muria; action rejection in Babel and West Kalimantan
- Muria society constantly campaigning and advocacy rejection of nuclear power plant in the village of Balong
- Organization of various seminars and discussions and sharing of rejection NPP information sheet



Issue / Publication Rejection NPP



- Nuclear power plant: For the Progress of Civilization, 1966, WALHI, INFID and Yayasan Obor Indonesia,
- Against the devil Mephistopheles, 2008, complacent, LISTHIA,
- Nuclear Meltdown, Book of Darkness, 2009, Greenpeace,
- The Eruk wolf in Sheep's Clothing (2009), complacent, Alam Lestari Network Muria,
- Think perverted and Lies and the Public BATAN Promoters nuclear power plant in Indonesia, 2011, GP, WALHI, IESR, Rekso Earth Society (satisfied), Dr. Iwan Kurniawan, Dr. Nengah Sudja



WALHI appeal

- Demanding the termination of development projects of new nuclear power plants around the world.
- Demand that countries nuclear power plant owners are gradually discontinue the use of nuclear power and immediately switch to the use of renewable energy, environmentally friendly and a small risk.
- Demanding immediate termination of dirty technology transfer and high-risk from developed countries to developing countries and replace them with environmentally friendly technologies that low-risk.
- Demanded immediate recovery efforts of everyone exposed to nuclear radiation.
- Calling on the people of the world, especially Asia and ASEAN to build solidarity, consolidation of resistance to nuclear power plant anywhere.



Thank you

