

SDG11: Sustainable Cities Are Breathable Cities

“GENDER AND URBAN AIR POLLUTION”

Civil Society Policy Forum

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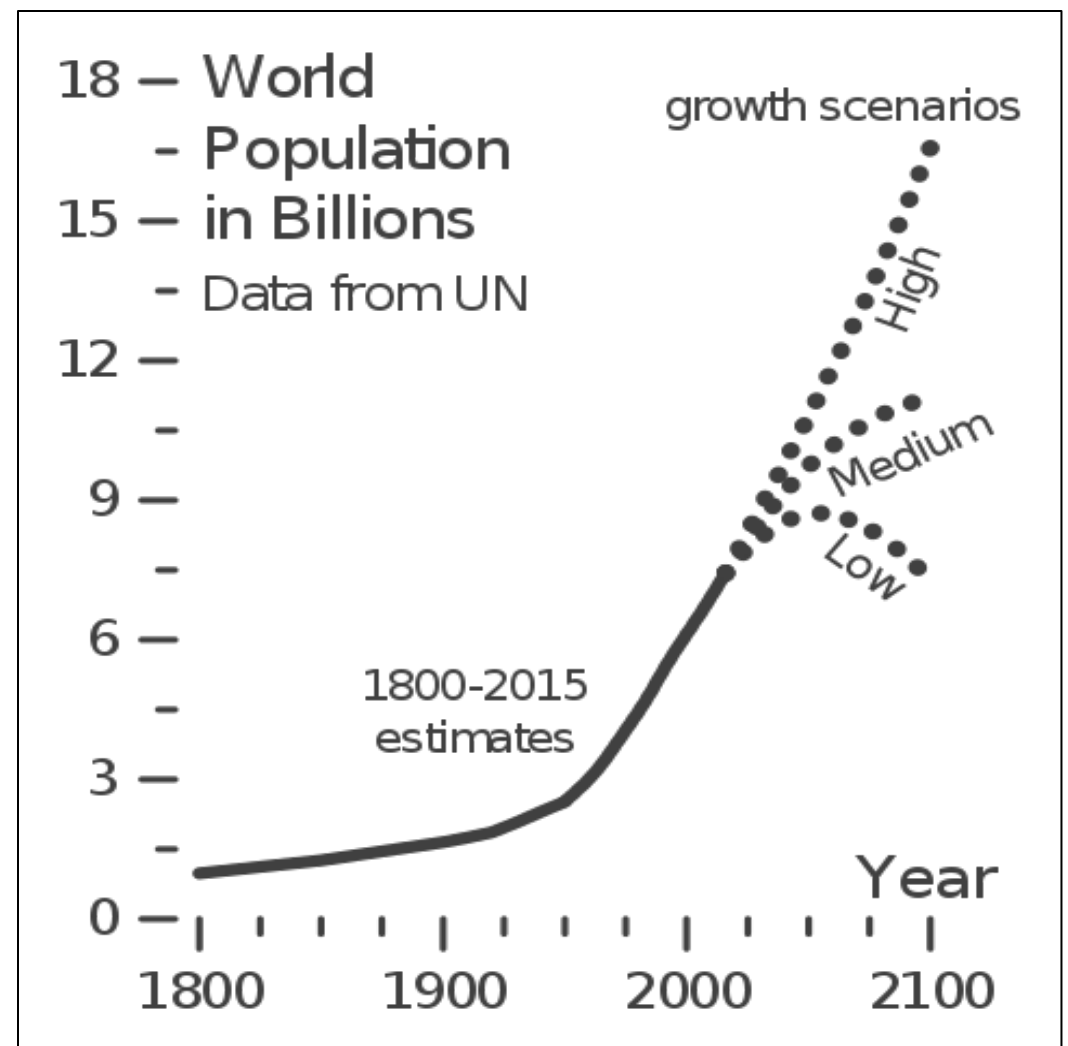
Introduction: 2050, The Spatial and Resources War

POPULATION GROWTH

Rank	Country / Territory	Population	Date	Approx. % of world population
1	China ^[note 4]	1,390,320,000	April 13, 2018	18.3%
2	India	1,330,390,000	April 13, 2018	17.5%
3	United States	326,955,000	April 13, 2018	4.29%
4	Indonesia	261,600,000	October 31, 2016	3.44%
5	Pakistan	211,224,000	April 13, 2018	2.77%
6	Brazil	208,911,000	April 13, 2018	2.74%
7	Nigeria	188,500,000	October 31, 2016	2.48%
8	Bangladesh	164,321,000	April 13, 2018	2.16%
9	Russia ^[note 5]	146,773,226	June 1, 2017	1.93%
10	Japan	126,670,000	September 1, 2017	1.66%

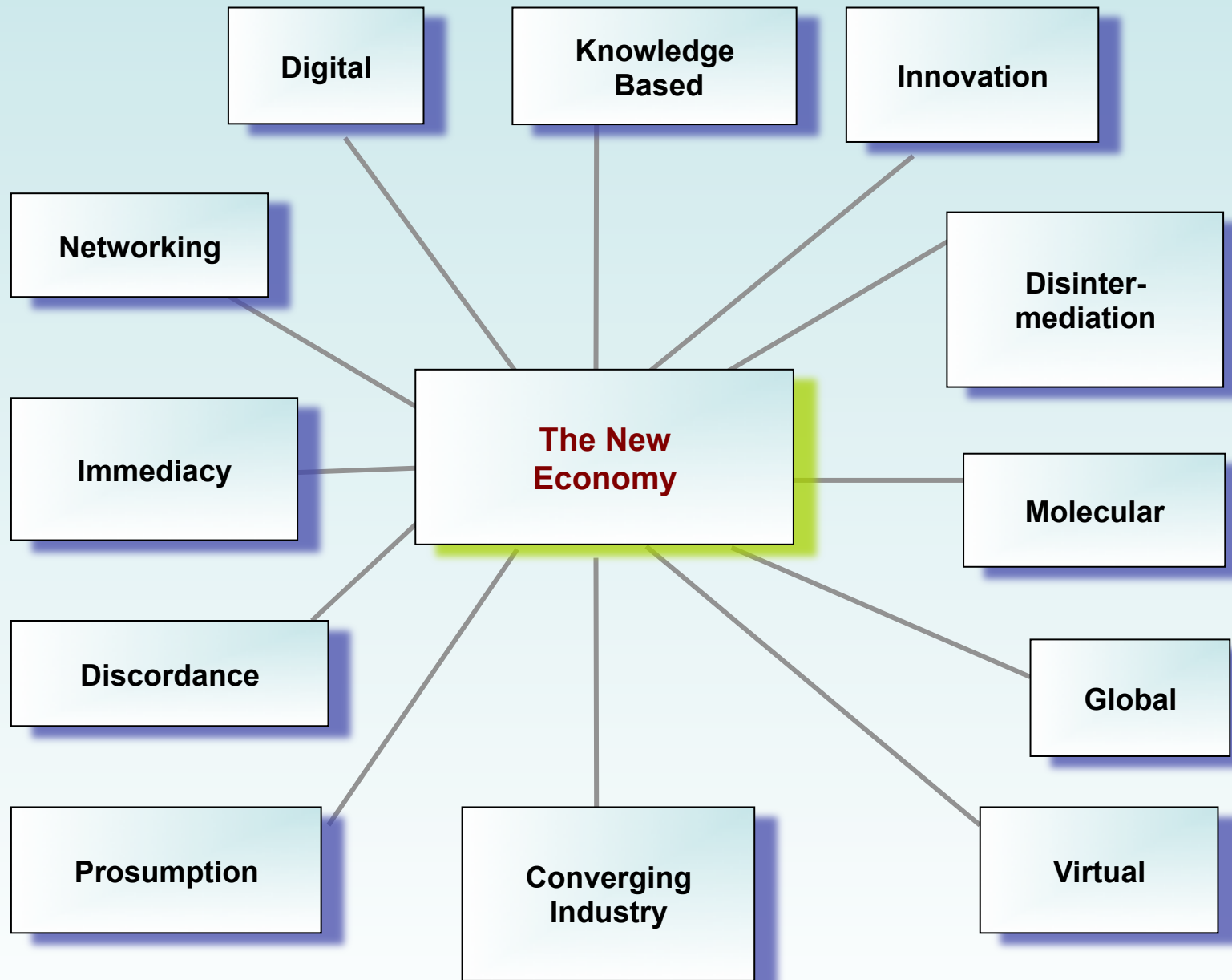
https://en.wikipedia.org/wiki/World_population; Official Population Clock

World Growth Population Estimated in 2050 will be 10-12.5 Billion. It will be impacted to the world energy consumption. **If there is not a set of global commitment, management and security it would be raising conflict on food, water, fresh air, spatial and energy.**



data from UN's 2015 estimates (<https://esa.un.org/unpd/wpp/>)

The New Era, Global Economy



The global economy has been transformed to the new era which signed by amount of global approach such as Innovation, knowledge based, Converging industry, virtual, networking, prosumption, etc. Undeniable, those are changing the anatomy of global business, financial, trade and investment

liberalization, free market, privatization, capital accumulation, Large Scale Investment, etc

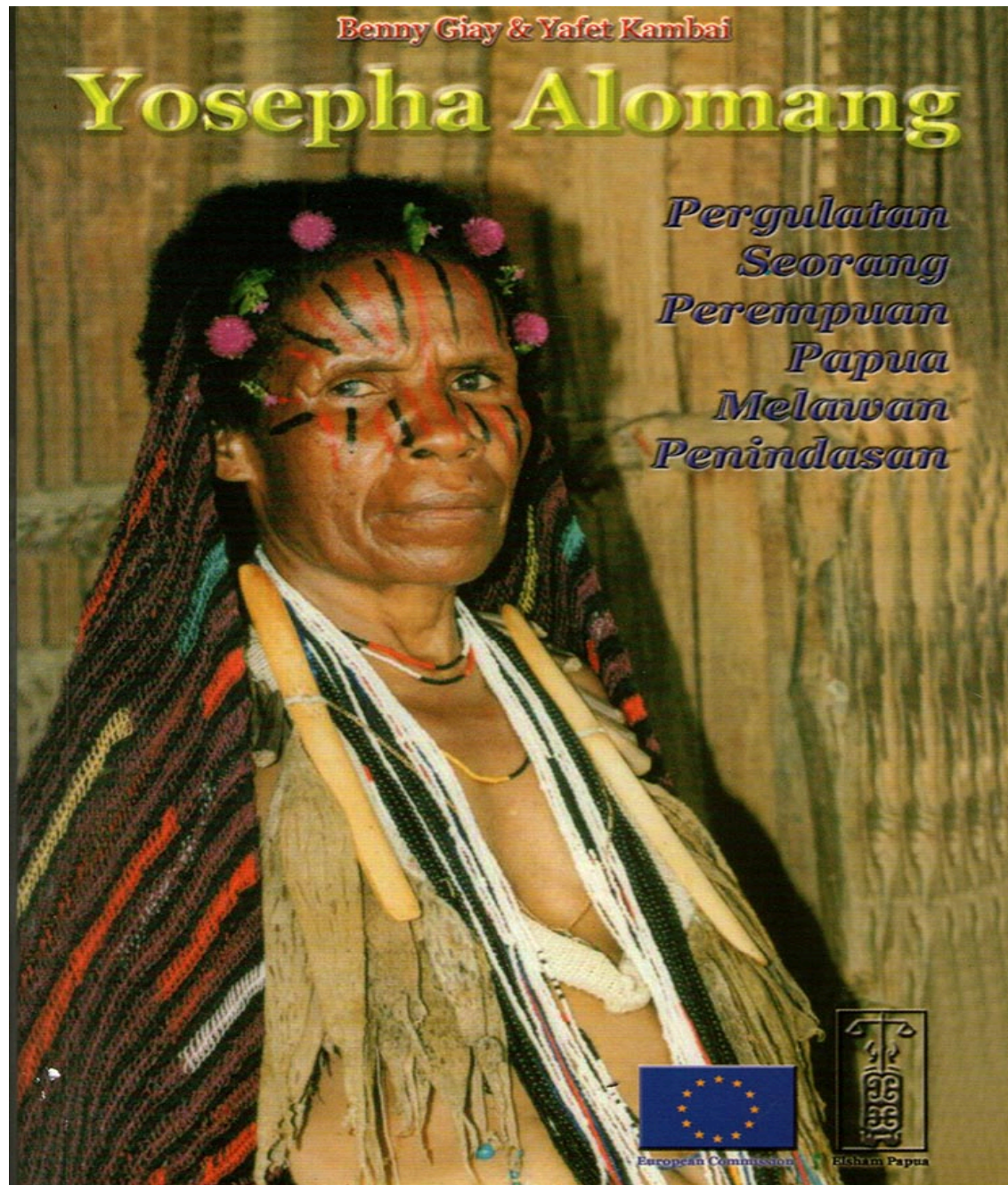
Potential Impact of Development to the Human Rights:

Indonesia's development in many ways whether through national Budget, Private sector or multinational scheme with large scale foreign investments (FTAs/BITs) will certainly give a detrimental impact to the human right issues such as: (1) damaging livelihood sources of local community or indigenous people; (2) rising the ecology or environmental problems; (3) Land Grabbing, (4) Social Conflict, etc.



Human Rights cannot be traded off as part of trade deal. They are legally binding after a state voluntarily endorses a human right treaty, and as every state is a party to at least one international human right treaty, they all have some binding international legal obligations for human rights.

A Papuan Woman: “Stand and Speak up for Human and Environmental Right”



Yosepha Alomang, also known as Mama Yosepha, is a Papuan woman who inspired many people because of her mettle to defend human and environmental rights in Papua. She gained international recognition as the winner of the [Goldman Environmental Prize](#) in 2001 for organizing resistance to the world's largest gold mining operation, promoting traditional cultures, collective action and the well-being of indigenous peoples.

Gender Equality Challenges in Environmental Issues

- ❑ **Gender Based Violence (GBV)** against women structurally is done by men, family, community, state even global mechanism which influenced by patriarchy values such as dominant, masculine and superior. Those shapes women in the long-term period to become subordinated, discriminated, marginalized, and exploited. **GBV is occurred caused of disparity of Gender Power Relation.**
- ❑ The assumption of superiority value over nature as if we were dominant over nature's laws or ecological principles definitely bring the nature to be over exploited and get detrimental damage. Obviously **Patriarchy is a manifestation of this sense of superiority.** Those give much contribution to make sharper gender gap and natural imbalance.
- ❑ Based on Mama Yosepha case and many other evidences showing that there is a close relationship between gender and environment. It is impossible if one part do exploitation and the other part do nursing to the nature. Every human being have the same right to taking care and overcoming problem of environment. At this point, everyone should has equal opportunity to access, control, protect natural resources and environment. So, **environmental issues indeed are a shared responsibility between man and women.**

In enhancing Gender Equality in tackling environmental issue, there are some focal points to be addressed, such as:

- ❑ **Women participation**, through increasing women participation in environmental issues it can develop mutual understanding and partnership between men and women in leadership, decision making, access and control on natural resources and environment. community empowerment, implementation of action plan, etc.
- ❑ **Inclusive Leadership**, Insufficient leadership & institutional mandate need to be paid attention. Despite the best efforts of many, if there is not a leadership and institution powerful and inclusively enough to challenge business as usual in tackling Environmental issues and generate all systems on the tract. We can not be expected too much. Nowadays, top of the list Issues such as the economy/jobs, health, education, crime and religion dominate the political agenda of government.
- ❑ **Environmental knowledge link to Education system**, Insufficient education in whole-formal/informal systems thinking, leads to ecological illiteracy, lack of appreciation for wild nature, and lack of ecological design. Besides, Indigenous communities more exposed to nature's ways, have much to offer to better understand a holistic worldview or perspective in their local wisdom.
- ❑ **Media mainstream 'Go Green'**, many facts revealed that media mainstream is dominated to serve the interests of the industrial world and suppress alternate views, which can increase public consciousness to take responsible on environmental issues
- ❑ **Green Technology**, technology evolution has been changing global industry system. Men/women workers are substituted by machines in fabrics, agricultural, marine and fishery and other sector. Expansive and exploitative. It leads us to enter the Technology Lock-In Era.

Megatrend of Urban and Environmental Challenges: Indonesia's Experience

- ❑ Indonesia is an archipelagic country located between Asia and Australia, and between Pacific and Indian Ocean, composes of more than 17,500 islands, which only are around 6000 are inhabited. The total land area is around 1,9 million km², 700.000 km² is habitable area (38% of all the land)
- ❑ Indonesia, is the world's fourth most populous country after China, India, and the USA, with population more than 224 million people. Almost 60% of population resides in Java island which only accounts for 7% of the land area.
- ❑ Since 2008, (data of BPS), for the first time of Indonesia history, half of the population resided in urban areas. By 2025, it is estimated about 65% of population (180 million people) will occupy urban areas primarily in 16 large cities
- ❑ Urbanization that continues to this day give huge impact and creates severe environmental degradation in urban areas such as loss of green open space, air pollution, water contamination and waste problem.

❑ **Climate Change:**

- In farming and agriculture, many forest burnt by some palm oil companies in order to land-use for their business. Until July 2017, the area of forest fires in Indonesia is more than 30.000 hectares.
- Extreme weather condition caused of high density of rainfall and long-term drought season. Rainfall in rainy season may lead to high risk of flood, those happened in several industry areas and coursing huge damage and economic losses of Rp. 30 Trillion per year. Based on the data from National Agency for Disaster Management (BNBP) stated that around 56.334 hectares of agricultural land failed to harvest due to drought season in 2017
- Rising sea temperature make coral reefs so stressful and as a result, most marine animal living and coral reefs lose their home. The Indonesian Institute of Science (LIPI) reported that there were about 35.15% coral reefs in Indonesia are in very bad condition in 2017.

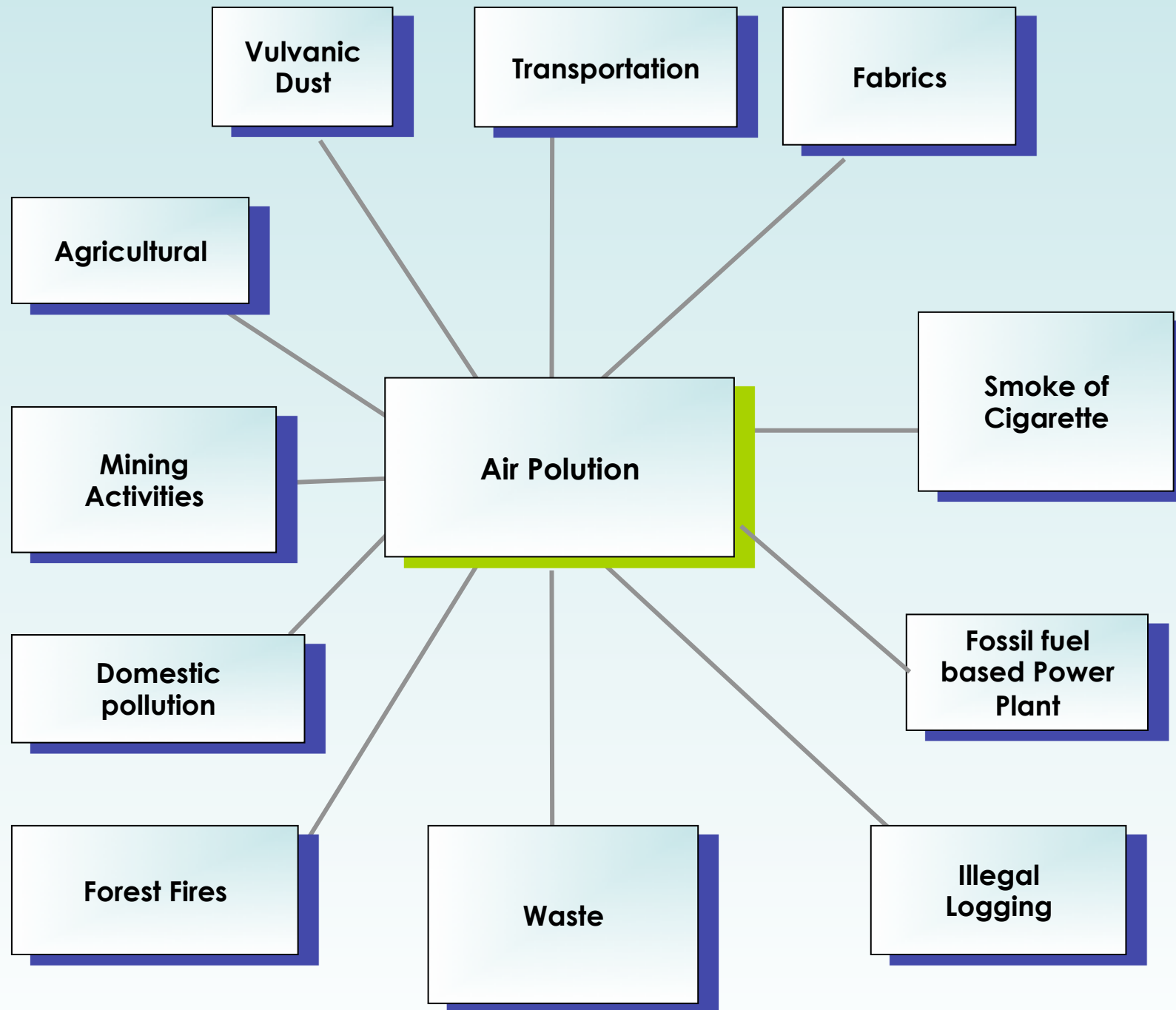
❑ **Deforestation:**

- Decreasing the amount of forest both for conservation and production lead to natural imbalances and trigger global warming. In 2015, deforestation in Indonesia reached 30 million hectares; the state losses of Rp. 30 Trillion per year due to illegal logging.
- Lowering oxygen quality
- Causing landslide. During the year 2017, there 577 cases of landslides In Indonesia (data of BPNP)
- Trigger the occurrence of flooding because less tree in the forest will not be able to absorb rain water. In Indonesia, there are 67 cases of flooding throughout 2017 (data of BNPB)

❑ **Air Pollution**

- The World Bank data reveals that the economic impact of pollution in Indonesia reached Rp. 4.3 Trillion in 2015
- Air pollution can give a potential trigger for further problem such as health issue, economic, social and agricultural, global warming and acid rain
- Particularly for Jakarta, the government is proposing another four coal-fired power plant in the region (7 units), as addition for existing 22 units. The pollution from these new power plant will be give worse impact for air quality and heath.

The causes of Air Pollution



Effect of Air Pollution

1. Respiratory and heart problems: The effects of Air pollution are alarming. They are known to create several respiratory and heart conditions along with Cancer, among other threats to the body. Several millions are known to have died due to direct or indirect effects of Air pollution. Children in areas exposed to air pollutants are said to commonly suffer from pneumonia and asthma.

2. Global warming: Another direct effect is the immediate alterations that the world is witnessing due to [Global warming](#). With increased temperatures world wide, increase in sea levels and melting of ice from colder regions and icebergs, displacement and loss of habitat have already signaled an impending disaster if actions for preservation and normalization aren't undertaken soon.

3. Acid Rain: Harmful gases like nitrogen oxides and sulfur oxides are released into the atmosphere during the burning of [fossil fuels](#). When it rains, the water droplets combines with these air pollutants, becomes acidic and then falls on the ground in the form of acid rain. [Acid rain](#) can cause great damage to human, animals and crops.

4. Eutrophication: Eutrophication is a condition where high amount of nitrogen present in some pollutants gets developed on sea's surface and turns itself into algae and adversely affect fish, plants and animal species. The green colored algae that is present on lakes and ponds is due to presence of this chemical only.

5. Effect on Wildlife: Just like humans, animals also face some devastating affects of air pollution. Toxic chemicals present in the air can force wildlife species to move to new place and change their habitat. The toxic pollutants deposit over the surface of the water and can also affect sea animals.

6. Depletion of Ozone layer: Ozone exists in earth's stratosphere and is responsible for protecting humans from harmful ultraviolet (UV) rays. Earth's ozone layer is depleting due to the presence of chlorofluorocarbons, hydro chlorofluorocarbons in the atmosphere. As ozone layer will go thin, it will emit harmful rays back on earth and can cause skin and eye related problems. UV rays also have the capability to affect crops.

Solutions for Air Pollution:

- 1. Use public mode of transportation:** Encourage people to use more and more [public modes of transportation](#) to reduce pollution. Also, try to make use of car pooling. If you and your colleagues come from the same locality and have same timings you can explore this option to save energy and money.
- 2. Conserve energy:** Switch off fans and lights when you are going out. Large amount of fossil fuels are burnt to produce electricity. You can save the environment from degradation by reducing the amount of fossil fuels to be burned.
- 3. Understand the concept of Reduce, Reuse and Recycle:** Do not throw away items that are of no use to you. In-fact reuse them for some other purpose. For e.g. you can use old jars to store cereals or pulses.
- 4. Emphasis on clean energy resources (New and Renewable Energy):** [Clean energy](#) technologies like [solar](#), [wind](#) and [geothermal](#) are on high these days. Governments of various countries have been providing grants to consumers who are interested in installing [solar panels](#) for their home. This will go a long way to curb air pollution.
- 5. Use energy efficient devices:** CFL lights consume [less electricity](#) as against their counterparts. They live longer, consume less electricity, lower electricity bills and also help you to reduce pollution by consuming less energy.

Intended Nationally Determined Contribution To Reduce Gas Emission



Sector	Forestry + Peat	REDD+	Agriculture	Power - energy	Transport	Waste	Industry
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Actions now

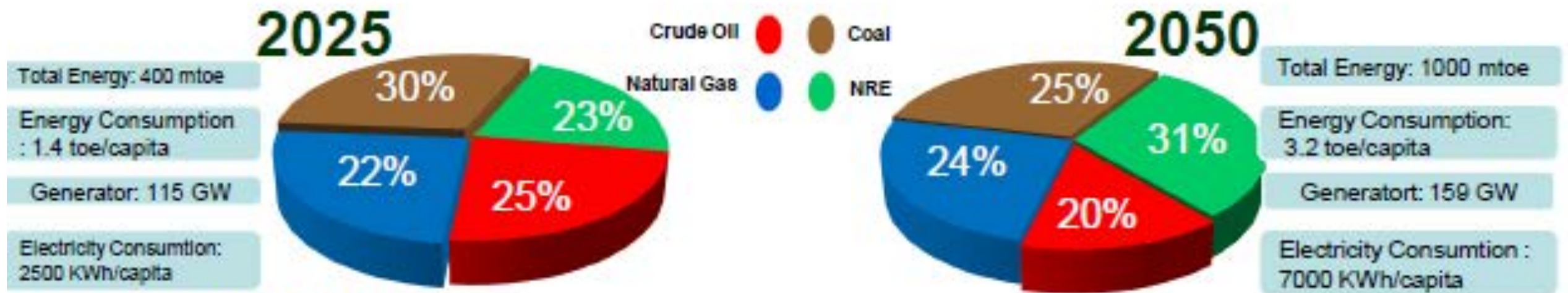
This corresponds to Indonesia’s commitment with the UNFCCC, to be achieved through seven mitigation actions:

- 1) Sustainable peat land management,
- 2) Reducing the rate of deforestation and land degradation,
- 3) Developing carbon sequestration projects in forestry and agriculture,
- 4) Promoting energy efficiency. Three main energy efficiency targets.
 - i. Reduce energy intensity by 1% per year until 2025 (in the RIKEN).
 - ii. Achieve 41% reduction of total primary energy supply in 2025 against a business-as-usual scenario via energy efficiency and conservation measures. In the 2006 PEN)
 - iii The third is to achieve an energy elasticity of less than 1 in 2025 (in the 2006 National Energy Policy).
- 5) Developing alternative and renewable energy sources,
- 6) Reducing solid and liquid waste, and
- 7) Shifting to low-emission transportation mode.

National Energy Policy

Government Regulation 79/2014 on National Energy Policy

- Re-Transform the energy mix by 2025 as follows: 30% coal, 22% oil, 23% renewable resources and 25% natural gas.



Energy Mix Up To 2050

Energy Mix	2015	2020	2025	2030	2035	2040	2045	2050
Total Energy	215	290	380	480	593	740	850	980
Oil	39%	32%	25%	22%	22%	21%	21%	20%
Gas	22%	22%	22%	23%	24%	24%	24%	24%
Coal	29%	29%	30%	30%	29%	27%	26%	25%
Total Renewable Energy	10%	17%	23%	25%	26%	28%	29%	31%





Legal Context-Environment (Attachment)

1. **National Constitution 1945**
2. Law No. 32 of 2009 regarding **Environmental Protection and Management (Environmental Law)**.
3. Government Regulation No. 27 of 2012 regarding **Environmental Permits**.
4. Minister of Environment Regulation No. 05 of 2012 regarding the **Types of Business and/or Activities Subject to Environmental Impact Assessment**.
5. Minister of Environment Regulation No. 16 of 2012 regarding **the Guidelines for the Preparation of Environment Documents**.
6. Minister of Environment Regulation No. 8 of 2013 regarding **the Guidelines for the Assessment and Evaluation of Environmental Documents and the Issuance of Environmental Permits**.

There are also various regulations relating to general environmental standards, including:

1. Government Regulation No. 41 of 1999 regarding **Air Pollution Control**.
2. Government Regulation No. 82 of 2001 regarding **Water Management Control and Water Pollution Control**.
3. Government Regulation No. 101 of 2014 regarding **the Management of Hazardous and Toxic Waste Materials**.
4. Government Regulation No. 74 of 2001 regarding **the Management of Hazardous and Toxic Materials**.

International conventions and agreements

Indonesia is a signatory to several environmental conventions and international agreements, many of which have subsequently been ratified by the Indonesian Parliament or implemented by the Indonesian Government, including the:

1. **Kyoto Protocol** to the United Nations Framework Convention on Climate Change (ratified by Indonesian Law No. 17 of 2004).
2. **International Convention on Civil Liability for Oil Pollution Damage**, as amended by Protocol 1992 (implemented by Presidential Decree No. 18 of 1978 and Presidential Decree No. 55 of 1999).
3. **Montreal Protocol** on Substances that Deplete the Ozone Layer 1985 and the Vienna Convention for the Protection of the Ozone Layer 1985, as amended (implemented by various Presidential Decrees and Presidential Regulations).
4. **International Convention for the Prevention of Pollution from Ships** 1973 and Protocol 1978 relating to the International Convention for the Prevention of Pollution from Ships 1973 (implemented by Presidential Decree No. 46 of 1986).
5. **United Nations Convention on the Law of the Sea** 1982 (ratified by Indonesian Law No. 17 of 1985).
6. **Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal** 1989 (implemented by Presidential Decree No. 61 of 1993).
7. **International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage** (implemented by Presidential Decree No. 19 of 1978).
8. **Stockholm Convention** on Persistent Organic Pollutants 2001 (ratified by Indonesian Law No. 19 of 2009).
9. **Paris Agreement** to the United Nations Framework Convention on Climate Change (ratified into National Law No 16/2016)
10. **Minamata Convention on Mercury** (ratified into National Law No11/2017)

Legal Context: Women Right in National Law

- Law No 7, 1984 on ratification of CEDAW
- Law No 23, 2004 on UU KDRT
- Law No 23, 2014 on Regional Government
- Law No 7, 2017 on National Election (include 30% Affirmative action for women candidacy in legislative election), and Law No,02, 2011 on Political Party
- Inpres No 9, 2000 on Accelerated on Gender Mainstreaming in all sectors of National Development
- Inpres No 3, 2010 on Equality of National Development

THE END

Newangkawi Mountain is me

Wanagong Lake is my feet

The air is my soul and the sea is my backbone

The land on this mountain is my whole body

You have destroyed my virginity

You have eaten my body

Which part of my body that you've not eaten and destroy me yet..

You bite me piece by piece

Ooh, you are still eating me, aren't you ?....

Please !!! Respect my land and my body....

Mama Yosepha