



PROTECTING HUMAN FROM
DISEASES RELATED TO INDOOR
AIR POLLUTION IN JAKARTA

Case Study



Budi Haryanto



FOR WHAT?

1. To develop policy to protect human from the risk to have diseases-related to indoor air pollution.
2. To make cleaner indoor air quality
3. To make safer indoor environment
4. To prevent humans from being exposed to indoor air pollution
5. To protect human from being ill
6. To avoid absenteeism
7. To enhance labour productivity



FOR WHOM?

Customers

Workers: avoid loss of incomes & high health costs

Drivers

Public places owners

Company owners: save on labour cost

Central government: National economics

Academicians: Developing science

Provincial government: Working efficiency

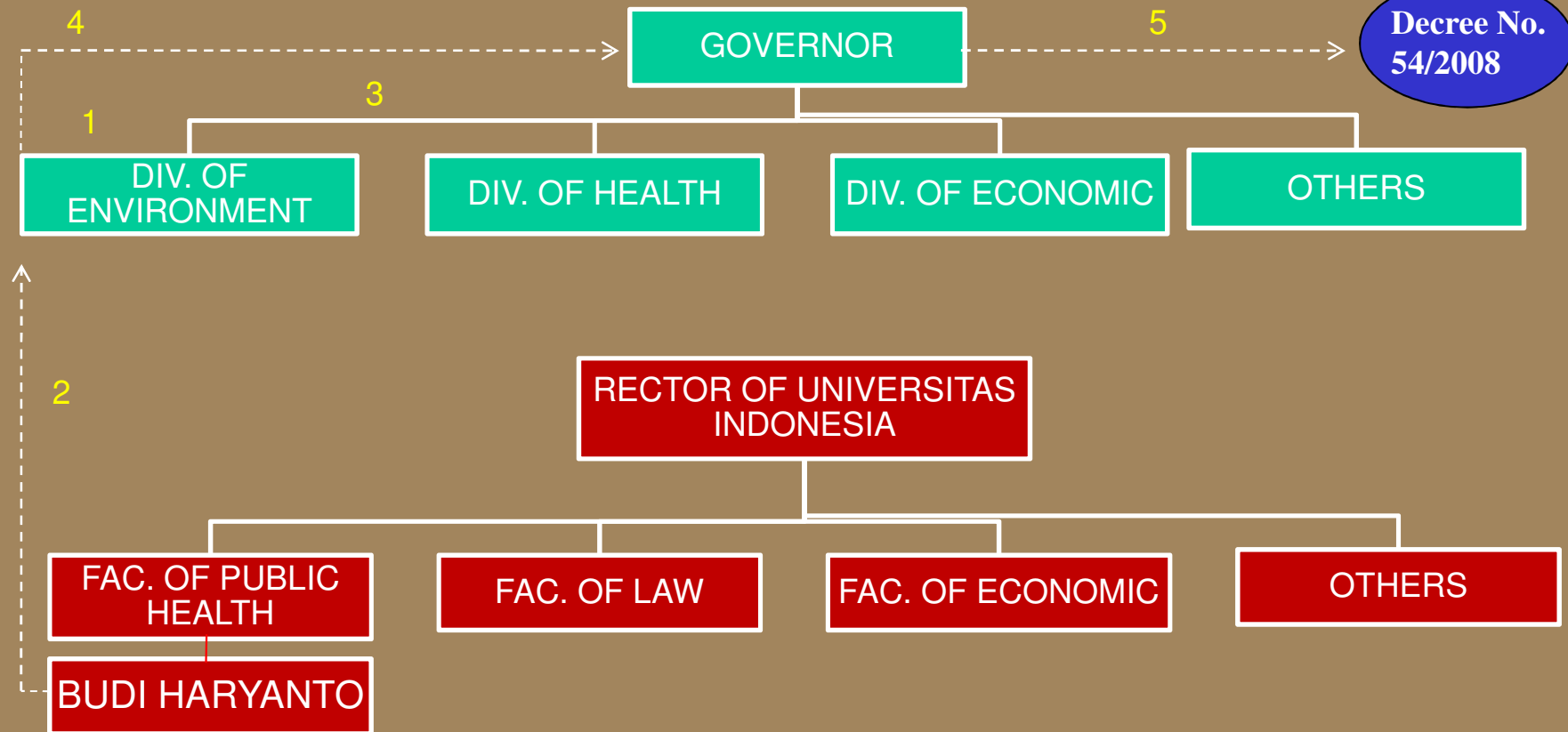


OF WHAT?

**PROCESS OF THE DEVELOPMENT
OF GOVERNOR'S DECREE NO. 54
/2008 ON INDOOR AIR QUALITY
AT HIGH BUILDING OFFICES,
PUBLIC PLACES, AND BASEMENT
PARKING AREAS IN JAKARTA**

SYSTEM VIEWS

Jakarta's Law
No. 2/2005



- 1 = Division of Environment was appointed by Governor to coordinate the development of Governor's Decree
- 2 = Budi Haryanto was invited as a resource person on the team based on his current research on indoor air pollution
- 3 = Division of Environment involved other sectors and institution on the team
- 4 = Draft of the Decree was sent to Governor
- 5 = Governor launched the Decree No. 54/2008 on 'Indoor Air Quality'



SCOPING

- Conducted national seminar on air pollution: ambient and indoor every year to presenting research findings by involving speaker from universities, donor agencies, NGO, and government, including Jakarta Governor c.q. Division of Environment
- Disseminated research findings through media, active – passive
- Involved in Jakarta sectoral meetings regarding air pollution topics
- Informal discussion with decision makers while attending seminar or conference in country or abroad



BOUNDARY SETTING

- Lack of capacity of human resources from other sectors or division during the process of developing policy and often changing person, made slow in progress
- Time and budget were limited for the process



PROBLEM FRAMING

- Personalised the problem, i.e., asking decision makers or seminar/meeting audiences on what they feel after a few hours working in the office: symptoms headache, watery eyes, throat irritation, dry cough, dry and itchy skin, dizziness, fatigue, inability to concentrate, etc. (SBS)
- Brought indoor air equipment when having meeting with Governor and found a very high dust concentration in his office and his complaint of having long time period dry cough
- Many people injured of CO in a supermarket or basement parking area when the electricity turned off for half an hour



TAKING VALUES INTO ACCOUNT

- To protect human from diseases-related to environment exposure to achieve human health and well being is my value
- To provide excellent research, education and public services to achieve human welfare as the value of university
- To protect population from the environment pollution to achieve optimum productivity and economic benefit as the value of Jakarta Division of Environment



HARNESSING DIFFERENCES

Jakarta's government made a policy by their own capacity to protect population and worker from environmental exposures, without evidence-based data

University conducted a research just for research and education, without considering to the important of research findings for policy making

Harnessing: working together



HOW?

- Provide information: Soon after the Division of Environment of Jakarta Provincial Government built a team for developing Governor's Decree on Indoor-air Quality, I was appointed to provide data and information on health impacts of indoor-air pollution based on research and other publications.
- Engage with policy makers: Through several meetings, seminars, workshops, conferences, and other activities over a long period of time, the policy makers invited me to join the team of Governor Decree development



BY WHOM?

- As the principal investigator of the research, I was the person who responsible for the whole process and output of the research
- Role of media: a) Active, media sent invitation for interview or attended seminar/workshop and published the information, b) Passive, researcher invited media or conducted press conference after seminar/workshop.

ROLE OF MEDIA





WHEN?

The research on Sick Building Syndrome among professional workers in Jakarta was conducted from June 2007 and finished on January 2008



OVERALL CONTEXTUAL FACTORS

The policy on Indoor Air Quality was developed to response:

- a. The National's Law No.23/1993 on Live Environmental Control, which was not included indoor air quality
- b. Minister of Health's Decree No.1405/2002 on Environmental and Occupational Health at Offices and Industries, which was not included indoor air quality
- c. Province of Jakarta's Law No.2/2005 on Air Pollution Control, which was also not included indoor air quality.

The research evidence showed about 50% professional workers suffered of sick building syndrome in 2008

Several evidences showed people at supermarket and those who were at parking lot poisoned by gas during 2003-2006



LEGITIMACY

Provincial government of Jakarta involved academician on the policy making process based on the reputation of the university, his reputation as an expertise on air pollution's health impacts, and his research findings on health impacts of indoor air pollution in Jakarta. The policy making process was commissioned and funded by the government.

The Bayer International Inc. supported the research on health impacts of indoor air pollution based on my employer, reputation, and the important of research for disease prevention.



ORGANISATIONAL BARRIERS

The University of Indonesia's culture was very supportive to share and disseminate evidences from research to policy making process

The Government of Indonesia's culture on research responsiveness in general was/is still lacking.
Only a few of research utilized properly in policy making.



OUTCOMES

- The academic's draft for the Governor's decree, which was produced by the team, had been presented several times on the program and sector meetings and got suggestions for revision
- Based on the final academic's draft, the Governor Decree was developed.
- The Governor's Decree on Indoor Air Quality had been presented and discussed on a seminar attended by stakeholders in 2008
- The implementation of the decree was not in the research side control. Almost all of public places have no equipments for indoor air monitoring as well as the skilled person in charge. Local government has not enough officers to monitor indoor air quality at offices.

SOCIALIZATION OF THE GOVERNOR DECREE 2008



SOCIALIZATION OF THE GOVERNOR DECREE 2008





Thank you

Healthier air

Nicer sleep

Sssshhhh...!