



Strengthening Oversight Over Dual- use Research in Asia

INDONESIAN PERSPECTIVE

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The Challenge

There are at least two challenges concerning the possible implementation of new oversight requirements in Indonesia

1. Biological activities → ... directed toward peaceful or hostile purposes?

- Producing biological weapons are simple, the materials and the knowledges are widely available. The biological agents is easy to be stolen from the laboratory.
- The source of biological agents is widely spread.

exp:

Bacillus anthraccis, is a naturally occurring disease in Indonesia

Pseudomonas coccovenenans: heat ressistant, high lethal, traditional

“It seems that there are no single measures to distinguish conclusively between permitted and prohibited activities”

The Challenge

There are at least two challenges concerning the possible implementation of new oversight requirements in Indonesia

1. Biological activities → ... directed toward peaceful or hostile purposes?
2. The danger of biological agent is heavily depend on the person who is handling the agent".

UN Secretary-General definition's on biological weapons:

Bacteriological (biological) agents of warfare are living organisms, whatever their nature, or infective material derived from them, which are intended to cause disease or death in man, animals or plants, and which depend for their effects on their ability to multiply in the person, animal or plant attacked.

The key is rests on our ability to distinguish between intentional release and natural distribution.

The Perception

no single definition of the biological threat (yet)

- Diverse of social and culture among the people.
- Geographical condition

Indonesia is an archipelagic country which is divided by land and water (There are 17.000++ islands)

Other factors are:

- population with low income, poor health of environment condition and health status.
- existence of separatist or extremist group in certain parts of Indonesia, that may use dangerous pathogens for a bio-threat, and
- lack of human resources who have capacity to detect and respond to biological attack.

So, a special and specific threat assessment is needed for Indonesia

Legal Aspects

Indonesia has a strong commitment to countering and eradicating terrorism, including bio-terrorism

- Law no. 16/2003 on Terrorism
- Enacting the National Legislation on the Implementation of the Biological Weapons Convention → the draft is ready to be submitted to Parliament.
- submitted an update national report to implement the UNSC 1540.
- ratified international conventions on terrorism
- signed the Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Aviation (1988).
- carried out the provisions stipulated in UNSC Resolution 1373.
- organized various trainings for capacity building and raising awareness:
- currently exploring cooperation on capacity building to strengthen the security of biological pathogens with other countries

Incentives

The government of Indonesia fully support scientists and institutions in countering any misuse of biological agents

- Raising awareness to the public
- Promote awareness among scientific communities
- Strengthen national capacity building
(personnel, equipment, surveillance system, national coordination, cooperation and management, and international cooperation).
- Develop guidelines for first responders
- Revise regulation on the safety and security of health laboratories.
- Establish a multilevel laboratory response network
- Establish BSL-3 Laboratories
- Enhance collaboration in the region and developed countries.

Securing Against Biological Threats:

Biosafety, Biosecurity, Bioethics Biopreparedness, and Biotechnology

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Objectives

- Foster dialogue considering the multiple facets of biosecurity needed to address biological threats
- Facilitate open discussion among scientists and technical experts
- Highlight relationship of security concerns among the public health, agriculture, veterinary, government and private sectors



Securing Against Biological Threats:

Biosafety, Biosecurity, Bioethics Biopreparedness, and Biotechnology

Workshop

- Discuss mutual concerns and goals with countries in the region
- Identify opportunities for sustainable long-term collaboration and engagement:
 - Technology development and transfer
 - Training and resource sharing
 - Capacity building

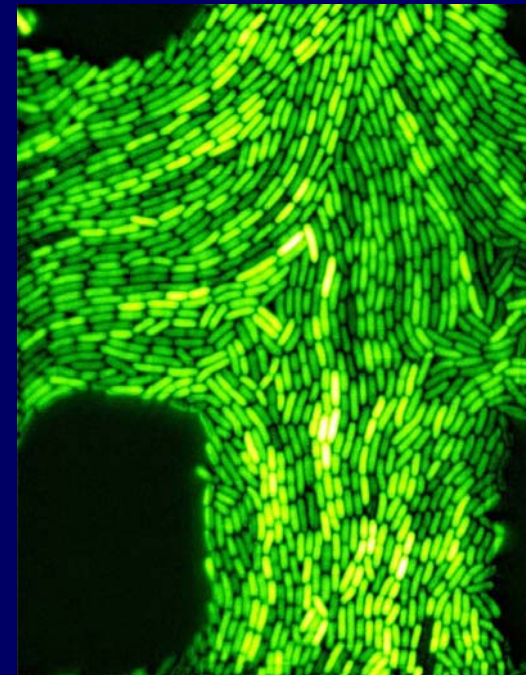


Securing Against Biological Threats:

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Topics for Discussion

- Identify shared national and regional concerns regarding biosafety and biosecurity in Southeast Asia
- Discuss national and regional perspectives of key elements of biosecurity
 - Emerging infectious diseases
 - Biosafety and biosecurity
 - Bioethics and bioresponsibility
- Identify areas for future collaboration and information sharing



Securing Against Biological Threats:

Biosafety, Biosecurity, Bioethics Biopreparedness, and Biotechnology

Workshop Details

- WHEN: July/August, 2008
- WHERE: Bali, Indonesia
- HOSTS:
 - Indonesian Association of Microbiologists
 - Pacific Northwest Center for Global Security
- PARTICIPANTS:
 - Individuals in research, academia, and commercial sectors
 - Representatives of Public Health, Animal/Veterinary Health, and Agriculture Sectors
 - Open to representatives from the Southeast Asia region, including Brunei, Cambodia, DPRK, Laos, Malaysia, Myanmar, Philippines, Republic of Korea, Singapore, Thailand, and Vietnam

Securing Against Biological Threats:

Biosafety, Biosecurity, Bioethics Biopreparedness, and Biotechnology

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Conclusion

- There are difficulties and challenges in countering the misuse of biological agents in Indonesia.
- Assistance and cooperation is needed to enhance its capabilities to prevent bioterrorism and reducing biothreats.
 - ❖ Training for scientists on bio-safety and bio-security measures.
 - ❖ Training for first responders and public health personnel to enhance epidemiologic capacity to detect and respond to biological attack.
 - ❖ Assistance to establish a multilevel laboratory response network and build BSL 3 laboratories for humans and animals for research purposes.

BW Convention

First, '80

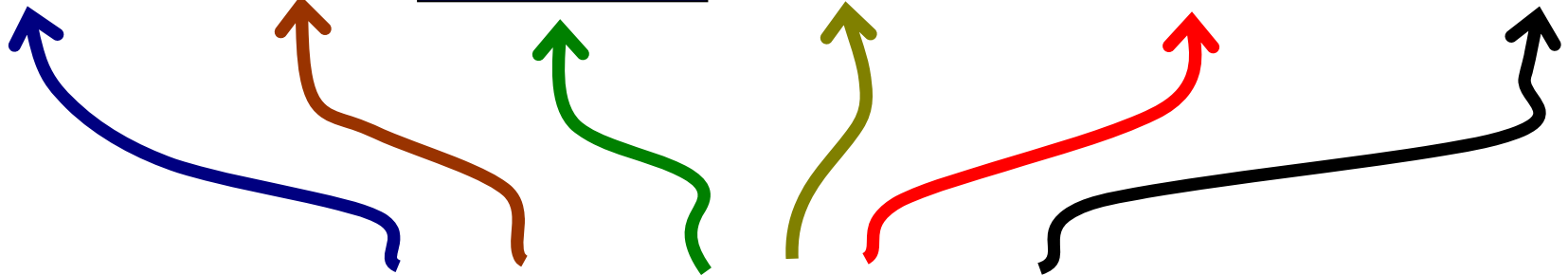
Second, '85

Third, '91

Fourth, '96

Fifth, 2001

Sixth, 2006



Articel 12 → Review Conference (every 5 year)

1972:

Biological Weapons

Convention (eif. 1975)

BW Convention

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**VEREX (1992-1993)
to find Verification System**

21 measures

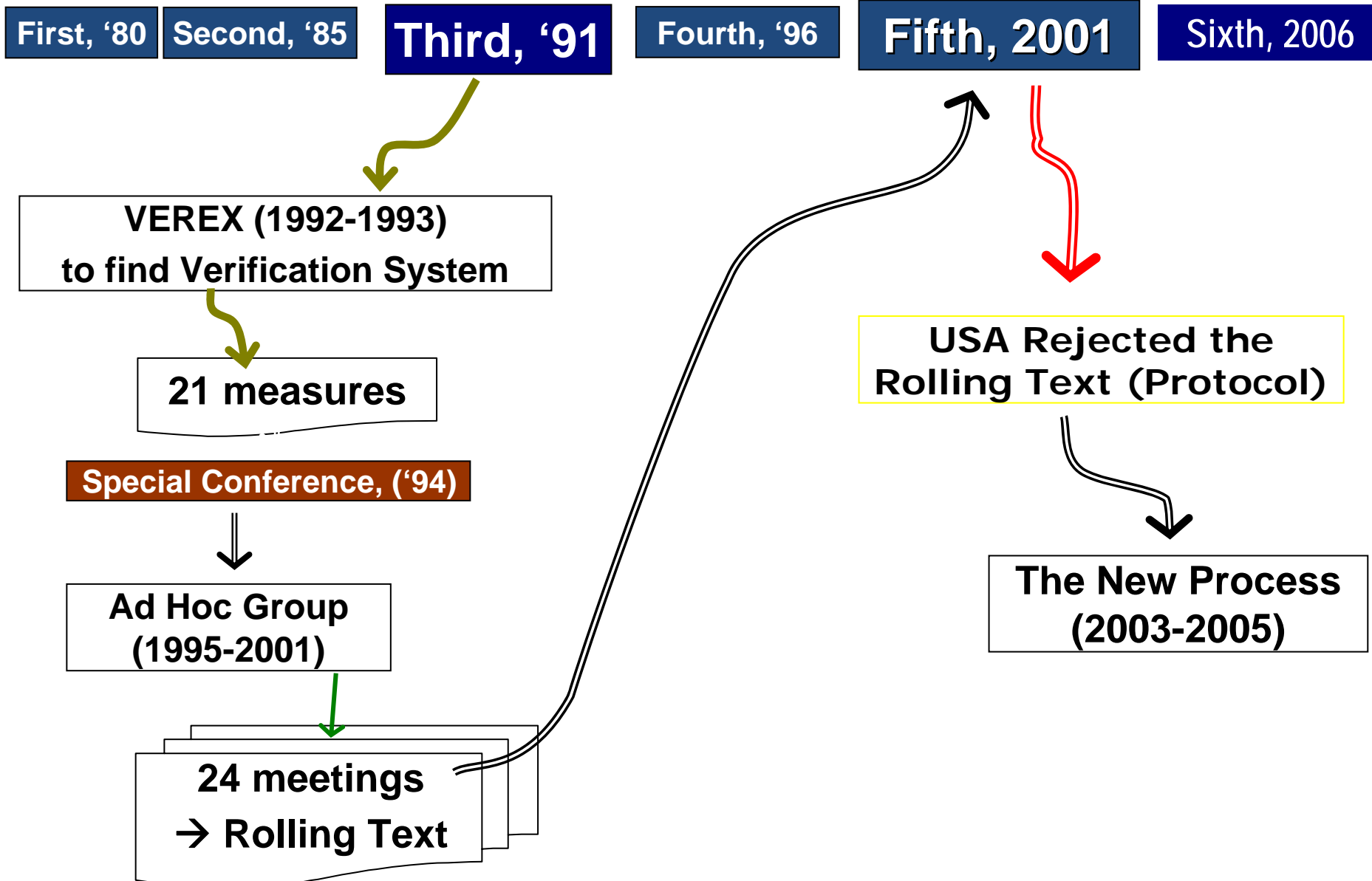
Special Conference, ('94)

**Ad Hoc Group
(1995-2001)**

**24 meetings
→ Rolling Text**

**USA Rejected the
Rolling Text (Protocol)**

**The New Process
(2003-2005)**



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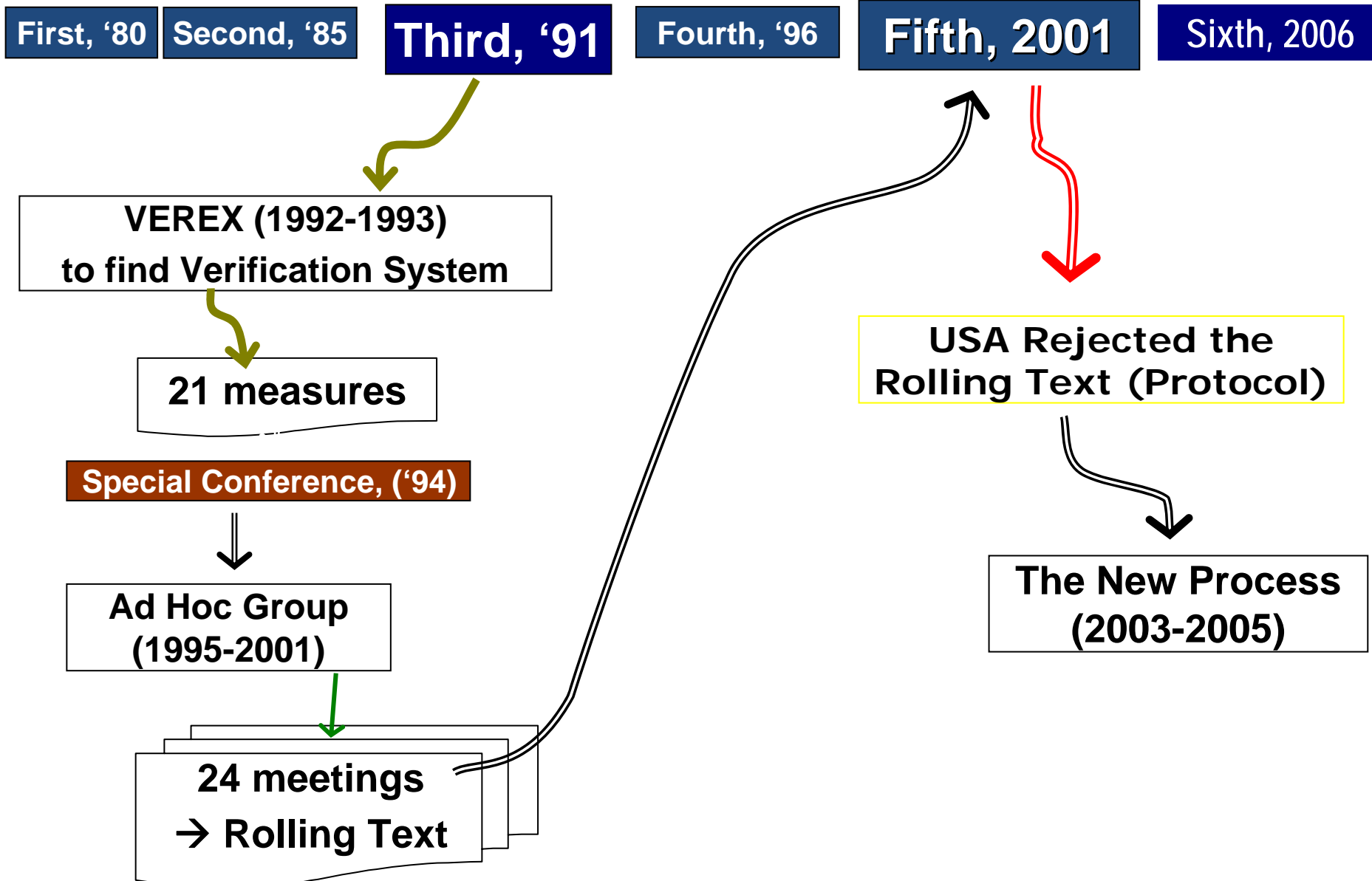
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2005 → codes of conduct
for scientists



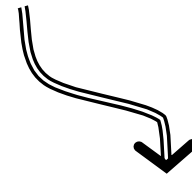
13-25 June : Experts Meeting

05-09 Dec : Meeting of SPs

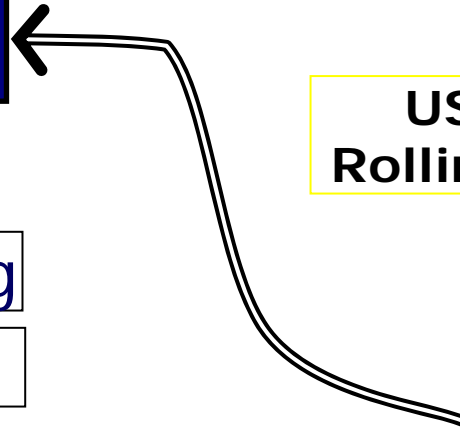


Report :
Bioethics Related
Activities in Indonesia

USA Rejected the
Rolling Text (Protocol)



The New Process
(2003-2005)



BW Convention



Report :
Bioethics Related
Activities in Indonesia

National Developments

- Research in the field of biotechnology were conducted by various universities/research organizations; such as Inter University Center for Biotechnology (Bogor Institute of Agriculture, Bandung Institute of Technology, and the University of Indonesia), Eijkman Molecular Biology Institution, Center for Biotechnology and Center for Biology of the Indonesian Institute of Sciences (LIPI), the Agency for the Assessment and Application of Technology (BPPT), MoH, Ministry of Agriculture, Ministry of Research and Technology, and others.
- Research into molecular biology and genetic engineering: transgenic experiments (agriculture)
- External challenges : on cloning technology, *stem cells experiments*, and others.

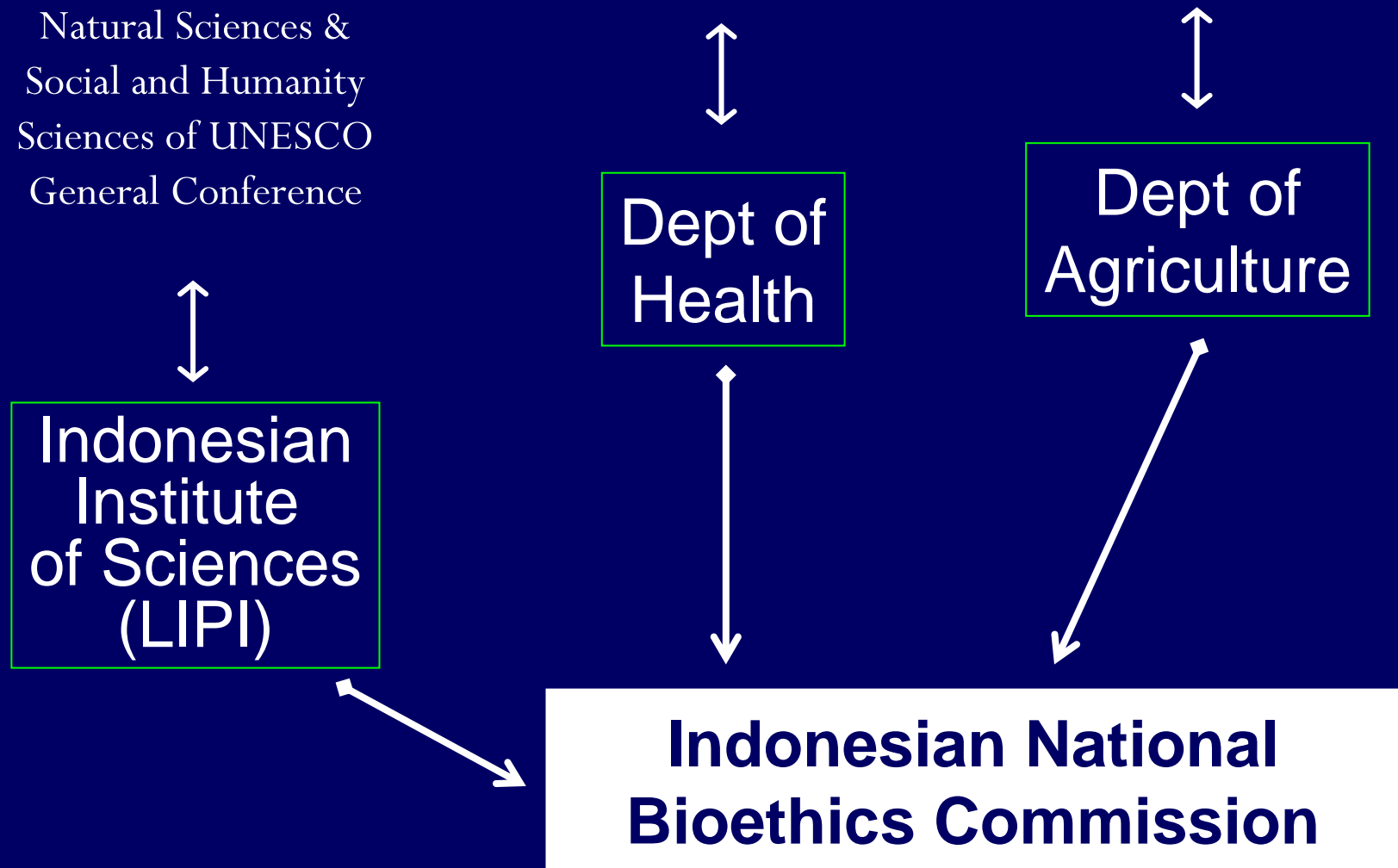
UNESCO

Commission-III:

Natural Sciences &
Social and Humanity
Sciences of UNESCO
General Conference

WHO

FAO



Preparation of National Bioethics Commission



November 2002
Minister of Research and Technology



March 2003
LIPI Preparatory Team
National Bioethics Commission



February 2004
National Bioethics Commission
(proposed draft)

Joint Declaration among three ministers:

- Minister for Research and Technology,
- Minister for Health, and
- Minister for Agriculture

on the Establishment of
National Bioethics Commission

(Nos: 108/M/Kp/IX/2004, 1045/Menkes/SKB/IX/2004, 540.1/Kpst/OT.160/9/2004)

- to advance studies related to bioethical principles,
- to provide considerations to the Government on aspects of bioethics in research,
- development and implementation of science and life science-based technologies
- to distribute general understanding and knowledge on bioethics.

(Chapter I, Article 2)

Functions

- a. Study of bioethics principles in the advancement of science and technology and study the impacts on the community;
- b. Review of ethics in the direction of science and technology development, in the field of life sciences in particular;
- c. Provide considerations to the Government in matters pertaining to ethics for the industries, especially bioindustries, research organizations, professional scientific organizations, and individuals in conducting research related to human, animals, plants, microorganisms, and the environment;

- d. Development of national bioethics guidelines through study of guidelines for research ethics and development of science and technology related to human, animal, plant, microbe and the environment;
- e. Information services from and to the Government and community on bioethics in its relation to the development of modern life sciences;
- f. Strengthening of network among groups dealing with aspects of ethics, periodically and/or as needed according to the experts or the community;
- g. Cooperation in dealing with issues related to bioethics internationally;
- h. All other functions in the field of bioethics related to the mission of the Commission.

(Chapter I, Article 3)

- Although the bioethics commission has been established, the ethics of the research are remain the responsibility of scientist and its community
- Bioethics commission plays an important role to supervise the activities carried out by scientist in the field of bioresearch to ensure that those activities are not intended to developing undesired purposes. For example, the research report/paper prepared by scientists cannot be published without prior approval from the commission.
- In this connection, capacity building is needed to empower INBC in order to support the national implementation of BTWC.