

CONFRONTING PANDEMIC INFLUENZA: JUST DON'T LET IT START

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CHINA**

BACKGROUND TO THINKING

PANDEMIC INFLUENZA

UNIFYING HYPOTHESIS

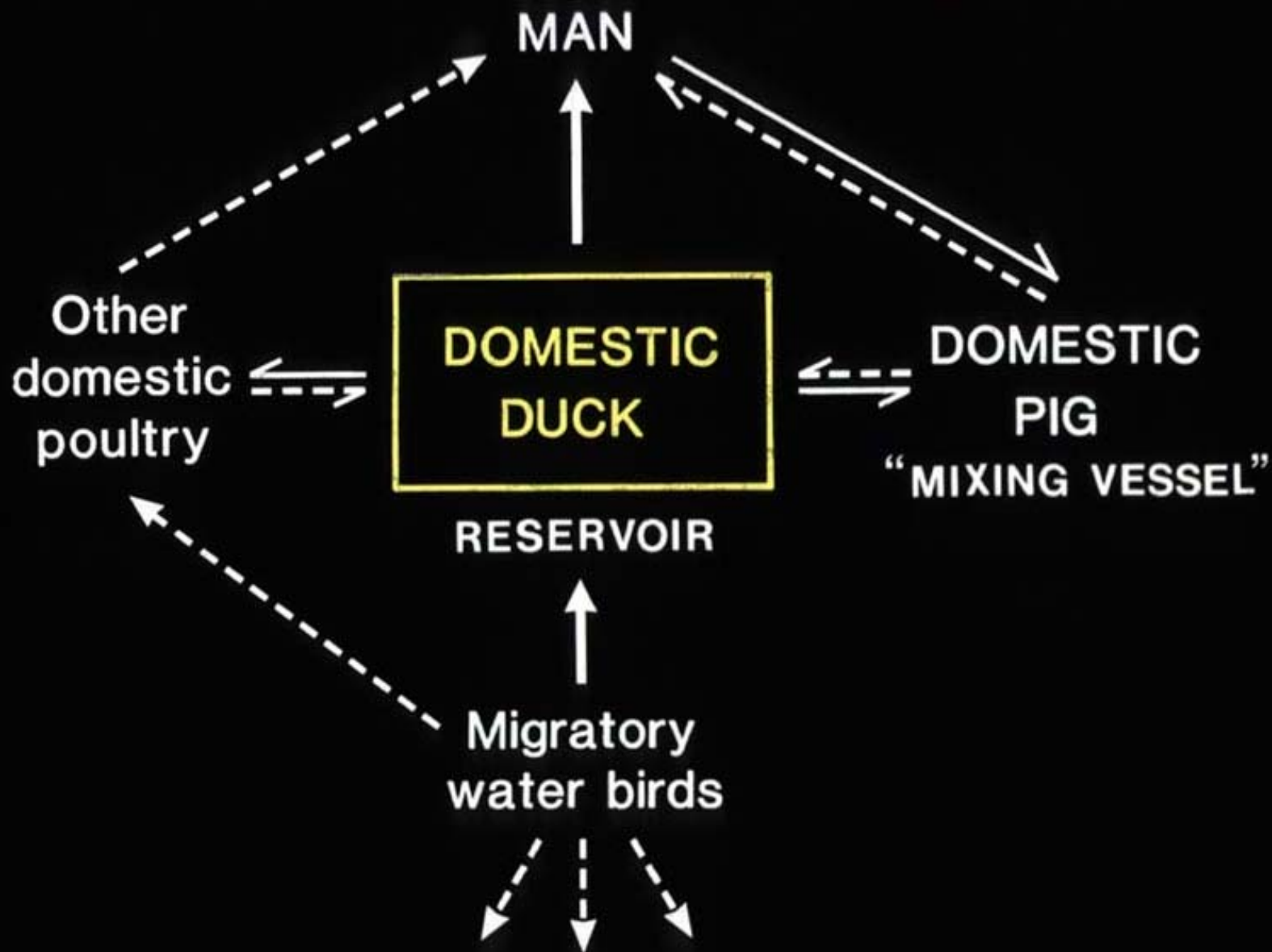
Obstacles

**COUNTLESS AVIAN INFLUENZA VIRUSES
IN SOUTHERN CHINA**

WHY DON'T WE HAVE PANDEMICS EVERY YEAR OR SO?

EACH PANDEMIC VIRUS IS DIFFERENT





Pandemic Influenza

ZOONOSIS

UNIFYING HYPOTHESIS

PANDEMIC INFLUENZA

JUST DON'T LET IT START

UNIFYING IDEAL

SCIENCE AND CIVILIZATION IN CHINA

Joseph Needham & Lu Gwei Djen

- The Best Medicine is Preventive Medicine
Warring States Period 472-221 BC
- A Skilful Doctor Cures Illness when there is No
Sign of Disease, and thus the Disease Never
Comes
Han Dynasty 206 BC-220 AD

CHINESE HIPPOCRATIC CORPUS

SOME BACKGROUND

MOTHER 1918/19 PANDEMIC

HONG KONG UNIVERSITY 1972

GET AHEAD OF THE NEXT PANDEMIC

REALIGNMENT OF THINKING

ALL TO WORK FOR THE COMMON GOOD

HUMANS

ANIMALS

WELL BEING OF THE PLANET

Multi-level understanding - education

HOW ARE WE DOING?

INFLUENZA ACTIVITIES

“PREPAREDNESS”

- **MUCH WORK BEING DONE ACROSS
MANY DISCIPLINES AND FIELDS**
- **WIDER PICTURE LACKS FOCUS**
- **GOALS SHORT TERM**
- **MANY VOICES, MANY ORGANIZATIONS**

PROCESS

VACCINES

ANTIVIRAL AGENTS

FUNDAMENTAL STUDIES

EPIDEMIOLOGY

PREPAREDNESS - HUMAN

ECOLOGY

PREPAREDNESS – BIRDS & ANIMALS

TACKLING AN AVIAN INFLUENZA PROBLEM

e.g. OUTBREAK, DEAD BIRDS, SICK PIGS

APPROPRIATE MEANS
INTELLIGENCE
INSERTION
EXECUTION
EXIT STRATEGY

Maybe
Maybe
Maybe
Maybe
Maybe

FOLLOW-UP STRATEGY

VIRUS SURVEILLANCE
SEROLOGY
SENTINEL BIRDS

MUST CAPITALIZE ON H5N1 MOMENTUM AND VIGILANCE

MAJOR ACHIEVEMENT -

A DECADE OF HOLDING H5N1 AT BAY

H7N7

THE NETHERLANDS

ELIMINATION

H5N1 THE DRIVER

But not perceived as a problem

SOME AVIAN INFLUENZA VIRUS WARNINGS

- 1982 SOUTHERN CHINA - HYPOTHETICAL PANDEMIC
INFLUENZA EPICENTRE**
- 1996 GEESE DIE IN GUANGDONG PROVINCE**
- 1997 >1 MILLION CHICKEN DIE IN GUANGDONG PROVINCE.
REPORTED 4 APRIL 1997 GUANGZHOU**
- 2003 H9N2 HEALTHY DUCKS/OTHER POULTRY SOUTHERN
CHINA Li et al J. Virol**
- 2006 H5N1 HEALTHY DUCKS SOUTHERN CHINA
Smith et al PNAS**
- 1995 QINGHAI LAKE, QINGHAI PROVINCE.
“INFUENZA HOT SPOT”**

1997.4.4: "南方日报" 湖北闻版.

疫症袭击广州鸡群 百七万只毛鸡病亡

市场鸡你未见波动 市民吃鸡亦请放心

本报讯 (记者张纯青、通讯员彭聪) 从去年底至今, 广州地区部分区、市养鸡户饲养的鸡群爆发严重疫症, 其中疫情最为严重的某区至今已有119万多只毛鸡死亡, 经过有关区、镇及各级兽医防疫部门的多方施救, 目前疫情已基本得到控制。

据悉, 此次流行的鸡群疫症主要有新城疫(鸡瘟)、喉气管炎、传染性法氏囊病等。去冬今春广州市忽冷忽热、时雨时晴的反常气候, 是诱发上述疫情的主要原因。据初步统计, 全市染病死亡的毛鸡目前已达170万只左右, 造成养鸡户直接经济损失1000多万元。

此次疫情中一个耐人寻味的现象是, 大规模的群鸡猝死, 多发生在一些中小型养鸡场中。地处前述某区疫点中心的几家大型养鸡场和种禽场却安然无恙。

广州市兽医防疫检疫站副站长谭丽屏据此认为, 部分养鸡专业户科学防疫意识薄弱, 是

就如何有效预防鸡群发生各种疫病的问题, 有关部门早已制订出一套科学规范的方法及严格的施行程序。在此次疫情中, 许多大型养鸡场因事前做足免疫功夫而幸免于难, 但一些中小养鸡专业户平时往往为图方便或心存侥幸, 不为鸡只注射疫苗或没有严格执行免疫程序, 结果疫情一起即受其害, 导致惨重损失。

在此次疫情爆发过程中, 有关部门还发现, 市内一些禽畜兽药经营店借机聘请所谓的“兽医”坐堂“开方”, 旨在推销其经销的药品, 致使部分“急病乱投医”的专业户得不到科学指导, 延误了控制疫情的时机。

为了防止疫症的进一步蔓延, 广州市各级兽医防疫检疫机构已派出大批技术人员下乡, 开办各种禽病防治技术讲座, 登门指导专业户科学防疫灭疫, 目前控制疫情的工作仍在进行中。另据笔者获悉, 有关部门目前正在加紧制订《广州市兽医从业人员资格认可办法》,

对市民心存的“病死鸡只会否流入广州市场”的疑虑, 有关部门的回答是否定的。据称, 因上述疫病死亡的鸡体极易腐败变质, 其色泽、肉质等与正常鸡只也有明显差异, 因此无人愿意冒险收购, 一般的处理方法是就地深埋。因此有关专家寄语市民: 吃鸡大可放心。

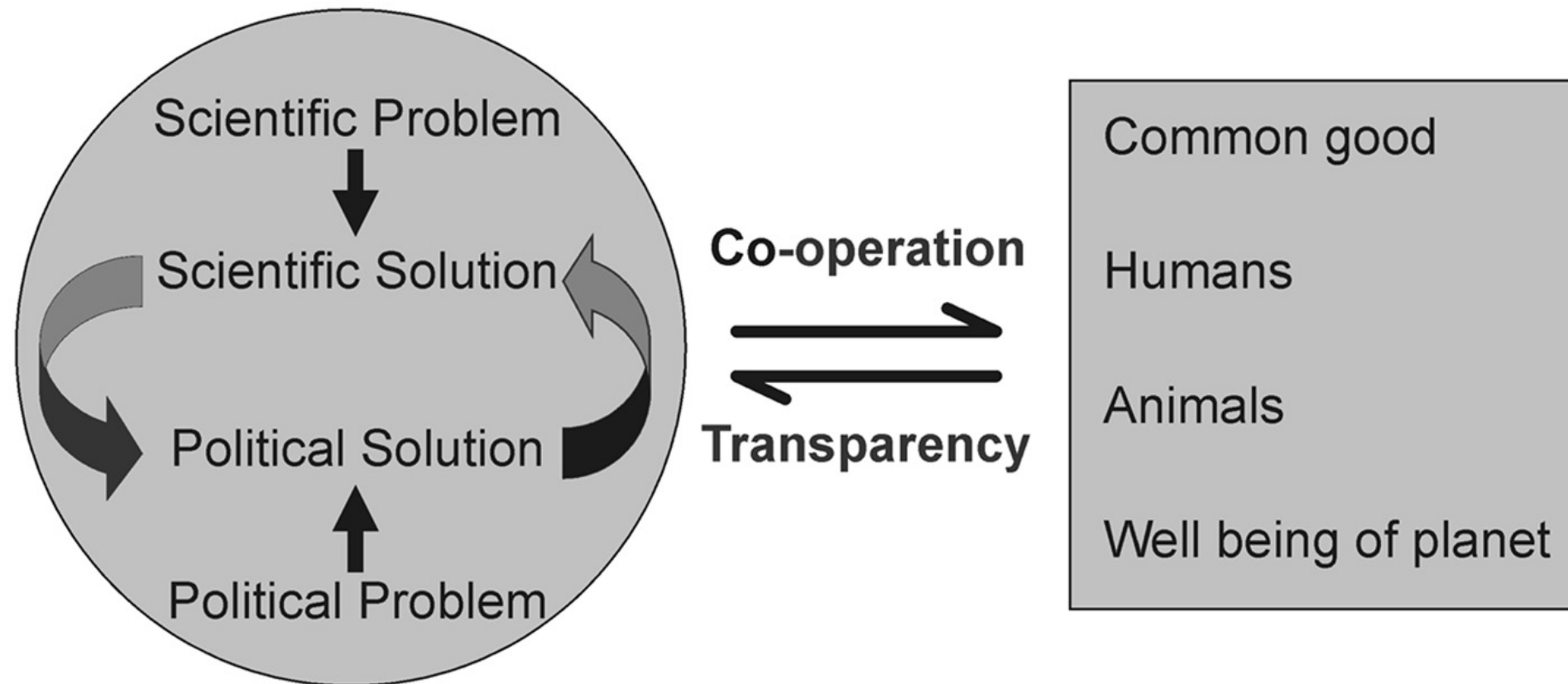
另据笔者了解, 此次“鸡瘟”等疫症袭击广州, 对市场鸡价几乎没有影响。虽然疫情最为严重的某区每年供应广州市场的毛鸡约占全市毛鸡上市总量的一半, 但染病而死的鸡只仅占该区年生鸡出栏量的2%, 且近两年来广州生鸡市场一直呈供过于求之态, 因此尽管发生疫情, 市场依旧风平浪静。

头条新闻大捷
实力雄厚 信誉一流
中国农村银行顺德支行

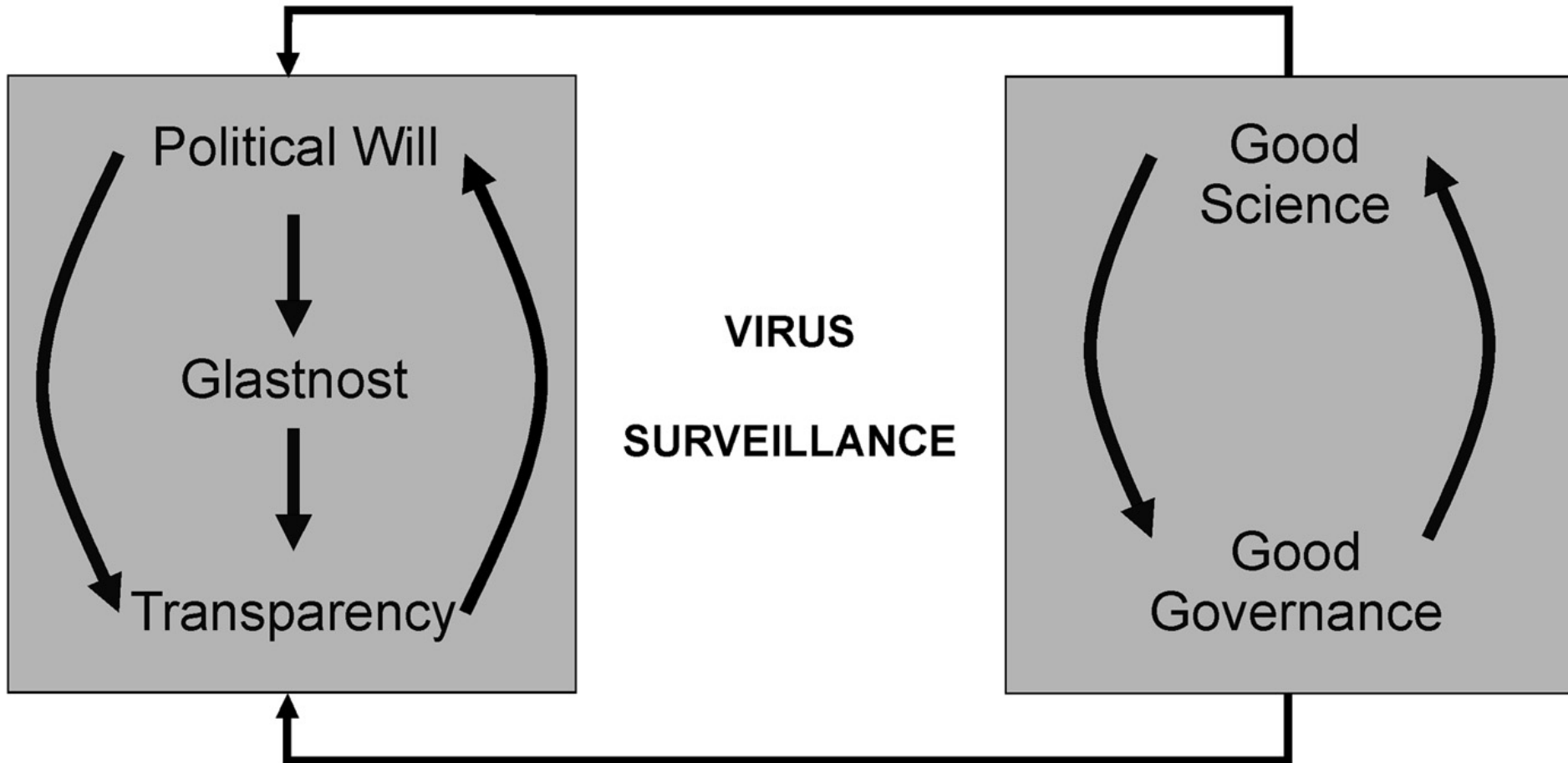
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国卫生
渠、搬拉

WAYS AHEAD

Pandemic Influenza Prevention Basic Principles



New Influenza Directions



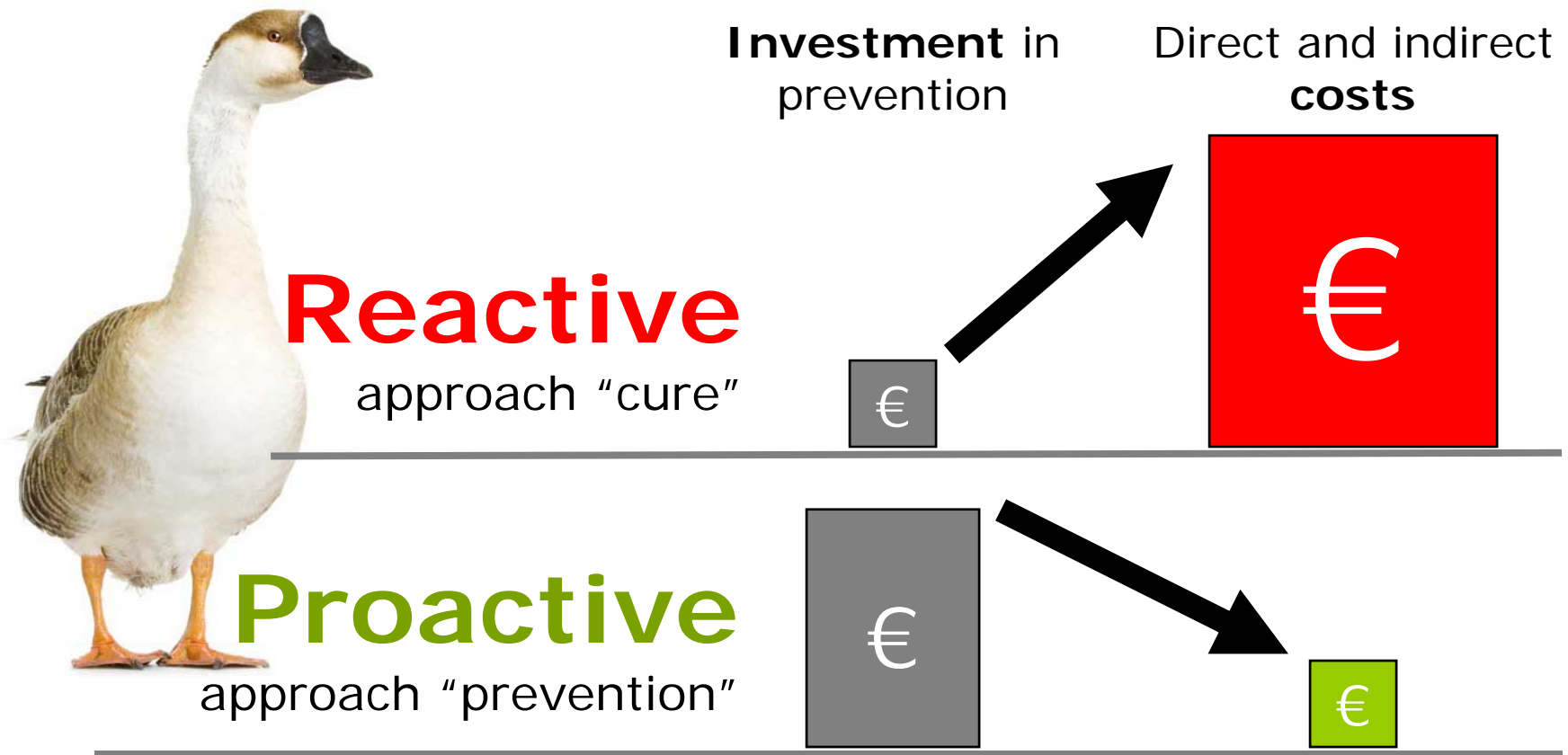


EU Animal Health Strategy

A new **Animal Health Strategy**
for the European Union (2007-2013) where
“Prevention is better than cure”



"Prevention is better than cure"



**“CHEAPER TO PREVENT DISEASE IN
HEALTHY POPULATIONS THAN TO
TREAT DISEASE IN SICK POPULATIONS.”**

**Preventive
medicine**

vs

**Curative
medicine**

APPRECIATION

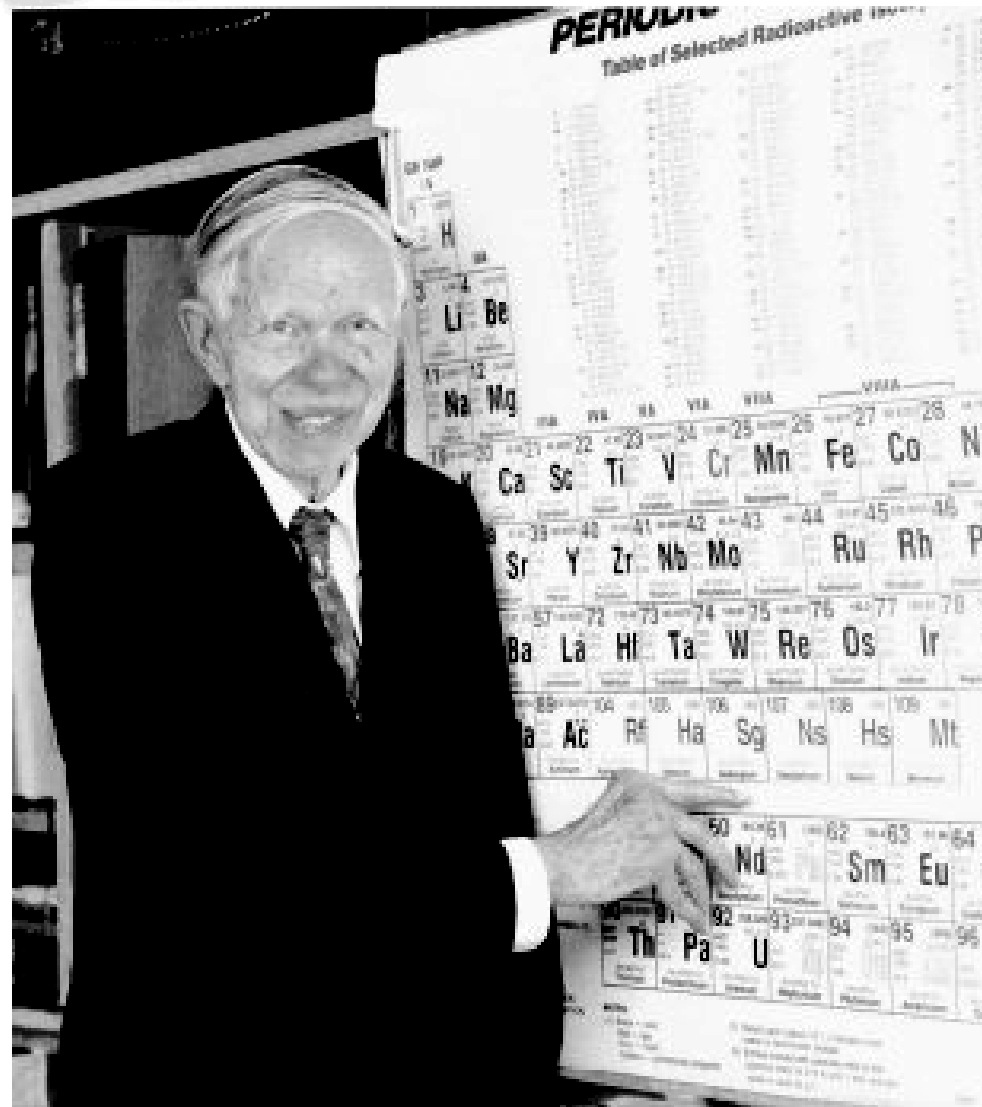
DAVID HILL WORLD INNOVATION FOUNDATION

LUTZ BAEHR WORLD INNOVATION FOUNDATION

**ALAN GIBBINS PRESIDENT
ASIAN PACIFIC FEDERATION
WORLD'S POULTRY SCIENCE
ASSOCIATION**

Professor Dr. Glenn T. Seaborg

Founding President of the World Innovation Foundation



WORLD INNOVATION FOUNDATION

**THE USE OF SCIENCE AND TECHNOLOGY
IN THE SERVICE OF GLOBAL
DEVELOPMENT AND THE CAUSE OF HUMANKIND**

Capacities

- **FACILITATOR**
- **PROVIDER OF CONSULTANCY SERVICES**
- **EXECUTOR OF INITIATIVE**
- **PARTNER**

LONG-TERM INFLUENZA STRATEGY

PREVENTION OF INFLUENZA PANDEMICS

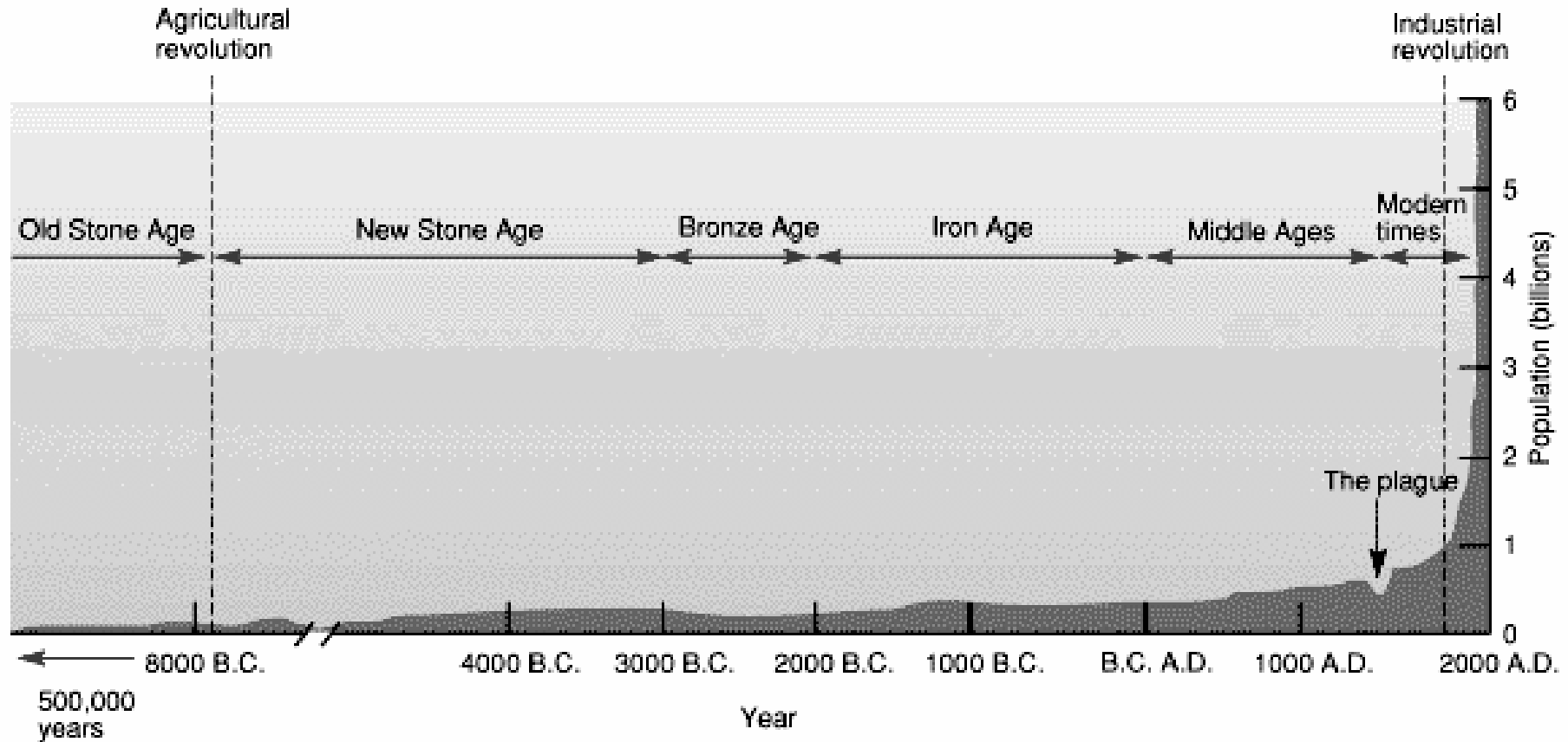
- **PROACTIVITY**
- **INTERNATIONAL UNITY**
- **CO-OPERATION**
- **UNIVERSAL PREVENTION**

HOW TO DO?

AN INFLUENZA VISION NEEDED

- SMALLPOX ERADICATED 1977/1979
- POLIOMYELITIS CLOSER TO ERADICATION
- INFLUENZA HUMANS ↑↑
 AVIANS POULTRY ↑↑↑↑↑↑↑↑↑↑
- INFLUENZA PANDEMICS – NON-ERADICABLE ZOOZOSES
- GLOBAL PROBLEM – GLOBAL SOLUTION

Population through time

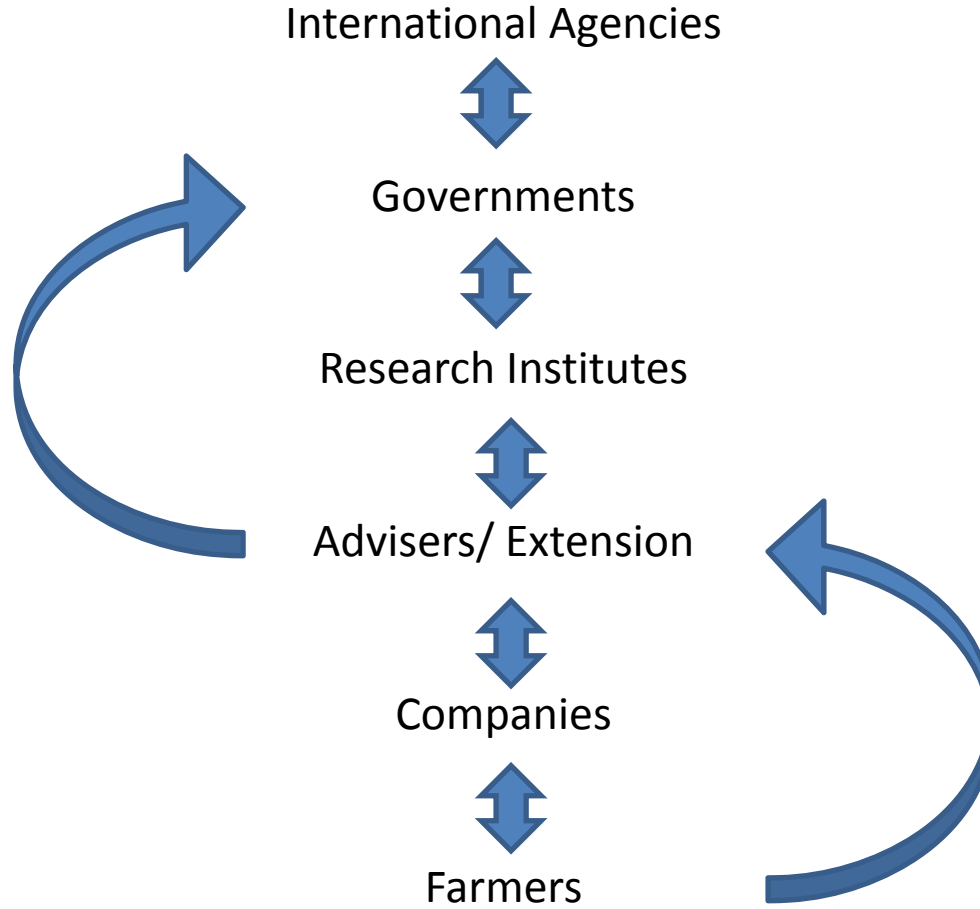


	chicken meat kg/person/y	eggs/person/y
Australia	36	155
Brazil	34	132
USA	44	256
Japan	15	324
China	8	340
Thailand	10	150
India	2	38
Nigeria	2	62
Vietnam	5	42

from Watt Poultry Executive Guide, 2006

Global poultry meat market, 81 million tonnes (2005)	
Chicken	86.4%
Turkey	6.4%
Duck	4.2%
Goose	2.9%
Other	0.1%

from Windhorst, 2006





WPSA

- WORKING TOWARD CO-ORDINATING ROLE
- DEVELOPMENT OF SMALL SCALE FAMILY POULTRY FARMING
- THROUGH CORE VALUES
- EDUCATION, ORGANIZATION AND RESEARCH

CO-ORDINATE EFFORT OF ALL HIGH-LEVEL INTERNATIONAL AGENCIES

**LARGE INTENSIVE COMMERCIAL UNITS
SMALL FAMILY BASED (OFTEN VILLAGE) UNITS**

**OPTIMIZATION OF RESOURCES
TOO SCARCE
TOO EXPENSIVE
WASTEFUL INEFFICIENCY**

COMMERCIAL PRESSURES

ASPECTS OF EDUCATION

UNIVERSITY

VETERINARY CURRICULA
AVIAN MEDICINE SUB-
SPECIALITY
OTHER CURRICULA

UNIVERSITIES AND
OTHER TERTIARY
INSTITUTES

EXTENSION OFFICERS

SCHOOLS, etc.

HYGIENE

QUALITY ADVICE TO DECISION MAKERS

MODELS FOR TRANSMITTING KNOWLEDGE INCLUDE

- discussion groups
- field days
- seminars / workshops
- personal contact
- demonstration / instruction
- printed material
- electronic sound and video
- resource kits

GLOBAL HOUSEKEEPING

GLOBAL REGISTER

**HPAI H5N1 AND H7NX
OTHER SUBTYPES??**

BIOTERRORISM

ESCAPE FROM LABORATORY

INFLUENZA RESEARCH EMPHASES

IMPROVED ECOLOGICAL UNDERSTANDING

THE HUMAN-ANIMAL INTERFACE

**ASSESSING PANDEMICITY POTENTIAL OF ALL
H SUBTYPES**

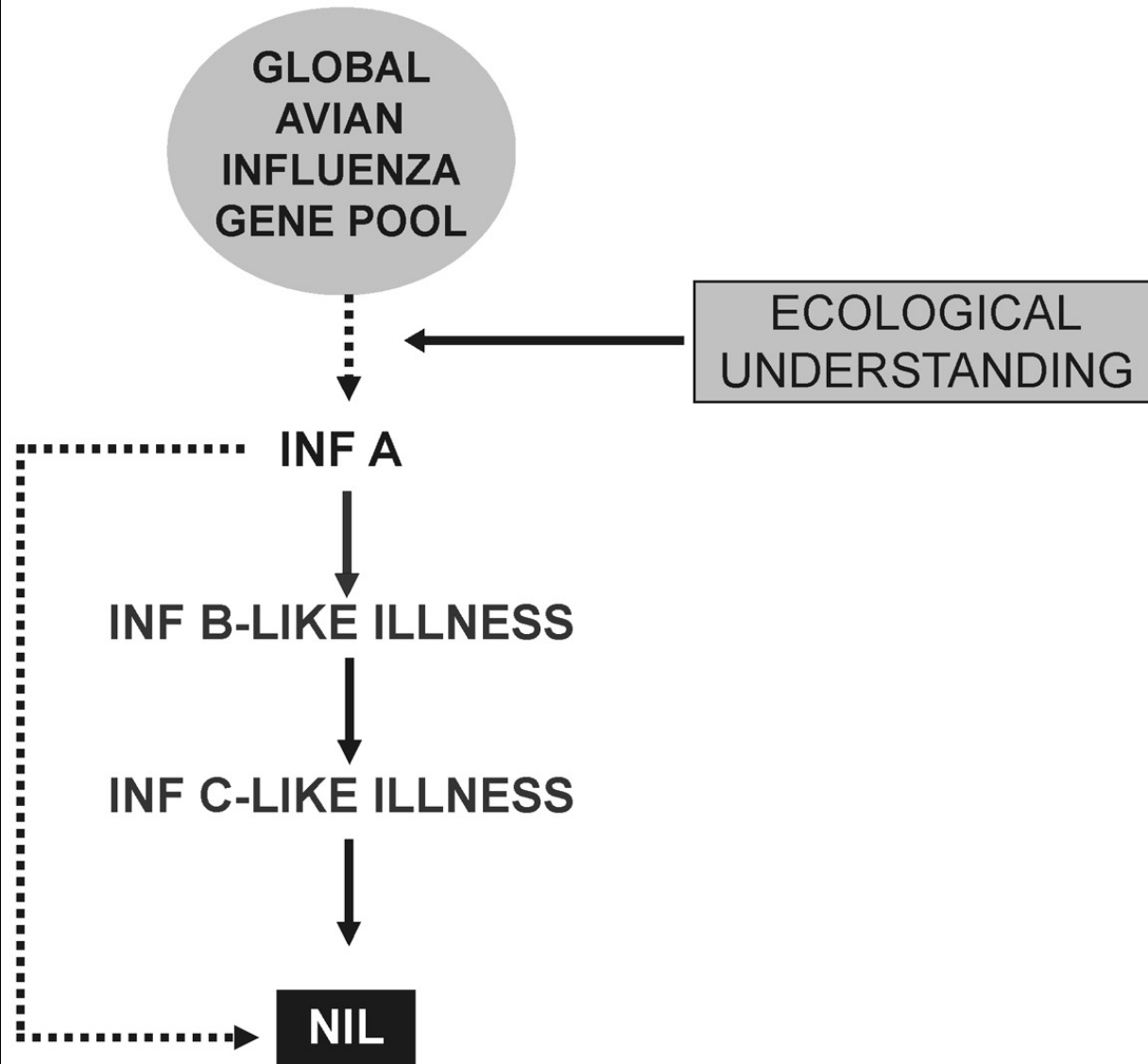
**e.g. ESCAPE MUTANTS
 IMMUNE RESPONSE**

VISION

Influenza ideal

NO MORE PANDEMICS

Relegation of influenza A viruses



VISION

NO MORE PANDEMICS

H5N1 START OF LONG HAUL

PANDEMIC INFLUENZA QUESTION

EXCEEDINGLY COMPLEX

GLOBAL PROBLEM REQUIRING GLOBAL EFFORT

SMALLPOX
POLIOMYELITIS

ACHIEVABILITY AND AFFORDABILITY FOR ALL NATIONS

GLOBAL STRATEGY AND GLOBAL PREVENTION PROGRAMME

INTERNATIONAL DECISION MAKING
OF UNITED NATIONS



"True success is not in the learning, but
its application to the benefit of
mankind."

His Royal Highness
Prince Mahidol of Songkla