wonderful indonesia

BIODIVERSITY AND HEALTH IN INDONESIA

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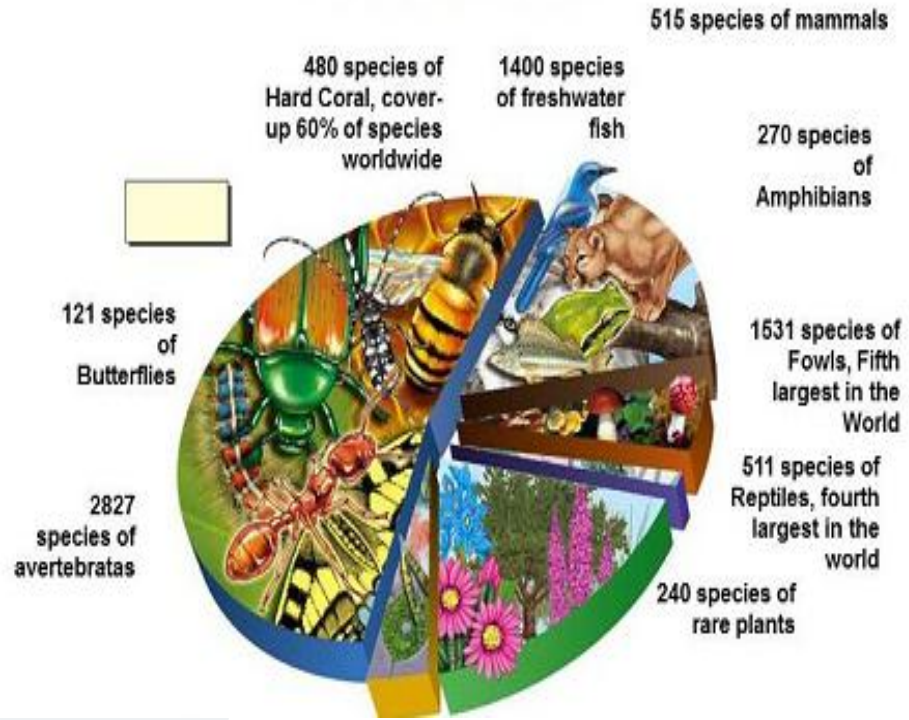
GREASE

Indonesia Biodiversity



The Indonesian Archipelago consists of 17,000 islands. Its wilderness areas include more than 10% of the world's flowering plant species, and 12% of the world's mammal species (including megafauna like elephants, rhinoceroses, orang utan and tigers), and 17% of the world's bird species.

Indonesia Biodiversity

Country:	Indonesia
Biodiversity:	
Plant species (% of global total)	25,000 (9.3) [2]
Endemic plants (% of global total)	17,500 (6.5) [3]
Threatened plants (% of country total)	383 (1.5) [4]
Mammal species (% of global total)	530 (11.4) [2]
Endemic mammals (% of global total)	222 (4.8) [3]
Threatened mammals (% of country total)	147 (28) [4]
Bird species (% of global total)	1,519 (15.3) [2]
Endemic birds (% of global total)	408 (4.1) [3]
Threatened birds (% of country total)	114 (7.5) [4]
Reptile species (% of global total)	706 (9.5) [7]
Endemic reptiles (% of global total)	52 (0.7) [7]
Threatened reptiles (% of country total)	28 (4) [4]
Amphibian species (% of global total)	340 (5.9) [8]
Endemic amphibians (% of global total)	154 (2.7) [8]
Threatened amphibians (% of country total)	33 (9.7) [4]
Fish species (% of global total)	8,500 (34) [2]
Endemic fish (% of global total)	108 (0.4) [9]
Threatened fish (% of country total)	95 (1.1) [9]

Sources: Myers et al., 2000; MacKinnon et al., 1996: 633; United Nations EnvironmentalProgram & World Conservation Monitoring Centre, 2000: 128; World Conservation Union, 2004: only critically endangered, endangered & vulnerable categories; Ong et al., 2002;Kennedy et al., 2000; Asean Regional Centre for Biodiversity Conservation, 2005; World Conservation Union, Conservation International & NatureServe, 2004; Fishbase, 2006.

Komodo

Komodo Island is notable as the habitat of the Komodo dragon, the **largest lizard on Earth**, which is one of **The New 7 Wonders of Nature**

Anaerobic and Aerobic Bacteria in The Saliva and Gingiva of Komodo

- 37 aerobic Gram-negative rods, especially *Enterobacteriaceae*;
- 50 aerobic Gram-positive bacteria, especially *Staphylococcus sciuri* and *Enterococcus faecalis*
- 41 anaerobes bacteria especially Clostridia

(Abrahamian & Goldstein, 2011).

There are still limited information of the bacteria in mouth of wild Komodo dragons, especially for zoonotic disease agent.

EMERGING ZOONOTIC DISEASE IN INDONESIA

70% from *EIDs* in Indonesia are ***ZOONOTIC diseases***

Avian Influenza	**High risk in 13 from 34 provinces**
Rabies	**Endemic in 25 from 34 provinces**
Anthrax	**Endemic in 10 from 34 provinces**
Brucellosis	**High prevalence in 4 from 34 provinces**
Leptospirosis	**Endemic in 13 from 34 provinces**
Plague	**Endemic in 7 subdistricts**
Zika	**Identified in 5 districts Jambi, Jakarta, Klaten, Bali, and Lombok**

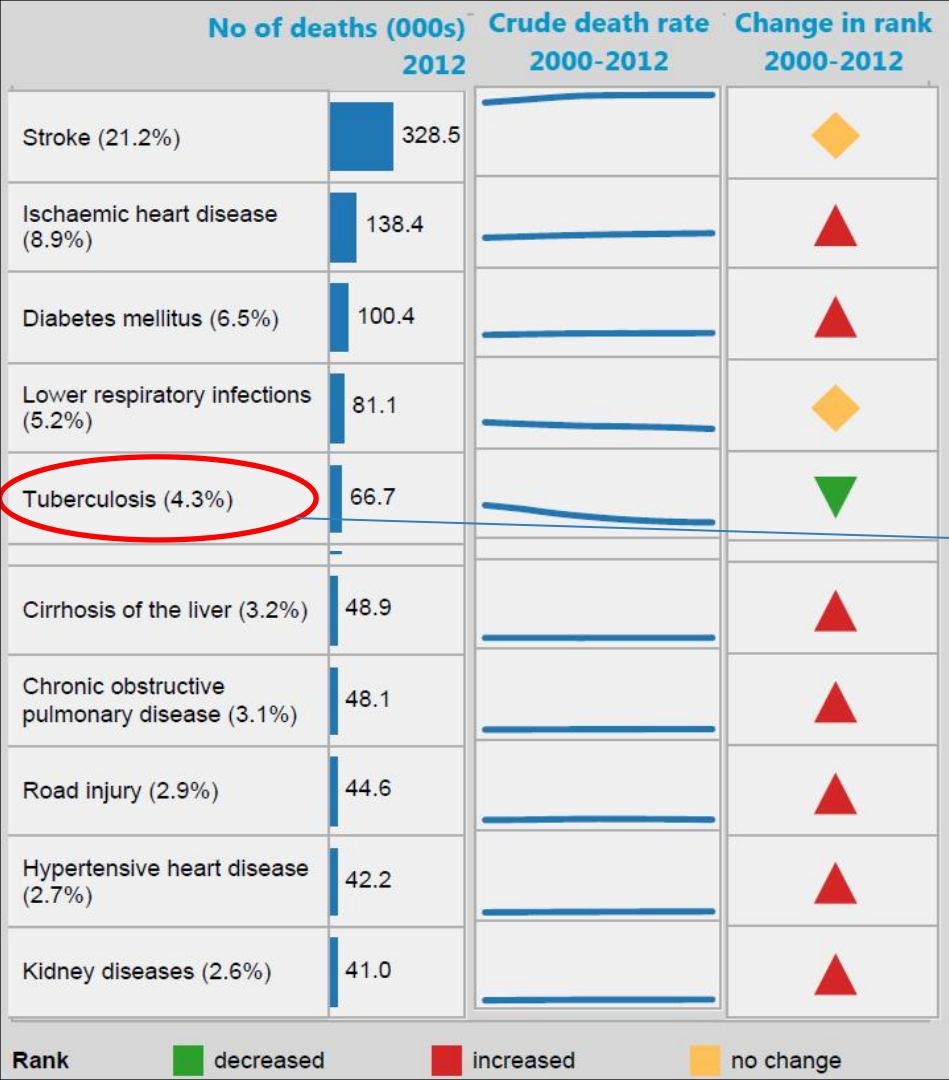
Source: Menko PMK, 2016

Indonesia:

1. A hotspot for zoonotic diseases
2. Future hotspot for Antimicrobial Resistance (Van Boeckel *et al*, 2015)

21 PEOPLE IN PURWOSARI, YOGYAKARTA WERE INDICATED INFECTED BY ANTHRAX DURING THE END OF 2016 AND BEGINNING OF 2017

Top10 causes of death in Indonesia



Zoonotic disease

Source: Country statistics and global health estimates by WHO and UN partners
For more information visit the Global Health Observatory
(http://who.int/gho/mortality_burden_disease/en/) Last updated: January 2015

“ 1.020,000 new cases of *Tuberculosis* in Indonesia, only 1/3 that have been treated

Government has signed global commitment to prioritize TB elimination by 2030 through multisectoral (government-private-community) responses at many level.

Source : ministry of health website
http://www.depkes.go.id/article/view/18030700002/menkes-melalui-rakerkesnas-sinergi-percepatan-penyelesaian-permasalahan-kesehatan.htm

Support from all sectors for the development of specific research on Komodo dragon and biodiversity in komodo island is still badly needed .

SUMMER COURSE ON ONE HEALTH APPROACH USING MOLECULAR TECHNIQUE f ZD Detection on Komodo and Wildlife

Time and Place

Time

The course will be held during summer in Indonesia (Dry season) on July 19th to July 29th 2018 (detail schedule attached)

Place

The course will be done in Universitas Gadjah Mada, Yogyakarta, Indonesia.

Universitas Gadjah Mada is Indonesian leading university. Universitas Gadjah Mada is the oldest and largest state university in Indonesia.
Special Region of Yogyakarta is one of city in Indonesia known as central of education and culture. Yogyakarta is known as Neverending Asia for its endless appeals.

Besides having program in Yogyakarta, course participants will have time to enjoy Gembira Loka Zoo, Wanagama Forest, also visit Merapi Montain also Geopark In Yogyakarta. Participants can enjoy with food, culture, heritage, food and wonderfull of Yogyakarta during the course.

Registration

The course fee (including meals, travel and accomodation hotels during the course) is 800 USD for international student, and IDR 2,000,000 for local student. We also open scholarship for 10 International students (@ 365 USD), and 10 local students (@ IDR 2,000,000)

For more Information please visit:
onehealthwg.web.ugm.ac.id

UNIVERSITAS GADJAH MADA

CALL FOR SUMMER COURSE

Summer Course on One Health Approach using Molecular Technique for Zoonotic Disease Detection on Komodo and Wildlife

Yogyakarta, Indonesia

July 19th - 29th 2018.

Course Description

Development in the integrated health sector (One Health) is one of the best programs of Universitas Gadjah Mada in the future. Improving human health is closely related to animal health, especially wildlife. About 62% of human diseases are zoonotic diseases, and most of them are from wildlife. The summer course is implemented to improve knowledge and skills in zoonotic disease identification with molecular techniques using One Health approach.

Learning Outcome

After completing the course, participants are expected to be able to:

- Understand basic principles, methods, clinical applications, and research methods on molecular biology using One Health approach to diagnose zoonotic diseases from komodo dragons and wildlife;
- Understand basic principles of animal welfare, preservation and rescue of wildlife;
- Build the character of leadership, mindset and attitude of interdisciplinary, cross-cultural, and cross-country cooperation for zoonotic disease diagnosis and wildlife conservation;
- Use of modern information technology and communications for cross-disciplinary, cross-cultural, and cross-country learning and collaborative research for zoonotic disease diagnosis and wildlife conservation.

Method

- The lecture will be delivered in a blended learning method involving lecture, discussion, and assignments in a Workshop Model.
- Field practice will be done in Gembira Loka zoo, Merapi Merbabu National Park, Yogyakarta Animal Rescue Center.
- Laboratory practice will be done at Research Center for Biotecnology Universitas Gadjah Mada.
- At the end of the course, students/participants need to submit an individual paper and present the group project assignment about human, wildlife and Komodo interaction.
- Upon completing the course, students/participants will be granted 3 credit units certification.

Thank You