

One Health & Well-Being: Toward Human – Nature Sustainability

George Lueddeke PhD
30 January 2020
CORE Group One Health Webinar Series



One Health & Well-Being: Toward Human –Nature Sustainability

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(1 HOPE)

One Health Commission & One Health Initiative
January 30, 2020

One Health & Well-Being: Toward Human –Nature Sustainability

Webinar Main Aims

Challenges facing the planet and all species

Approaches for mitigating risks

Ways of striving toward global sustainability and well-being.

ONE HEALTH & WELL-BEING: TOWARDS HUMAN-NATURE SUSTAINABILITY

Putting things in perspective

Existential challenges



Global responses



New mindset! Main hurdles



Possible ways forward

Queries







Putting things in perspective

Putting things in perspective Earth Evolution¹

- 13.7 billion years ago (YA): matter, energy, time, space
- 13.2 billion YA: atoms and molecules
- 3.8 billion YA: organisms
- 2.0 billion YA: unique symbiosis: archaea (eukanyotic cell) +
 - bacterium denergy = rise to complex life
- c. 2.5 MYA..animals like humans but just another species
- c. 200,000 YA modern Homo sapiens African continent

Revolutions Shaping the Course of History

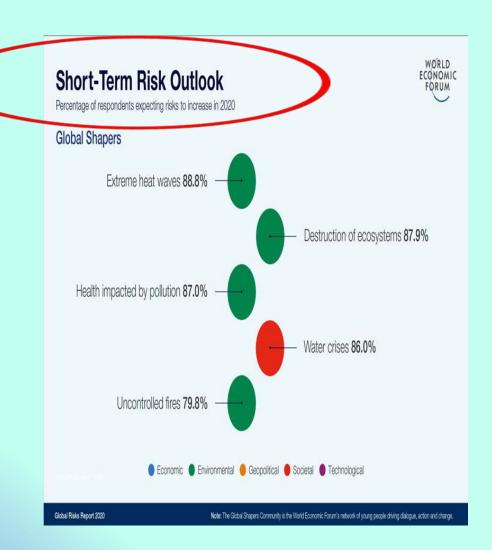
- C. 70, 000 YA : Cognitive Revolution
- c.12,000 YA: Agricultural Revolution
- c.500 YA: Scientific Revolution
- c. 80 YA: first antibiotic (1935!)
- c. 30 YA: Information Revolution internet-social media-robotics...?

Present

Global Sustainability Revolution? (Saving the World from itself?)

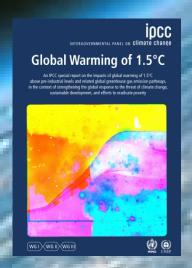
WEF 2020- Main Global Risks²





CO 2 = We emit c 34 gigatons of CO2 a year – roughly 50% remains in atmosphere for thousands of years – rest absorbed by oceans or by land (terrestrial carbon sink (TCS)

Paris Climate Accord 195 Nations - Dec 20154



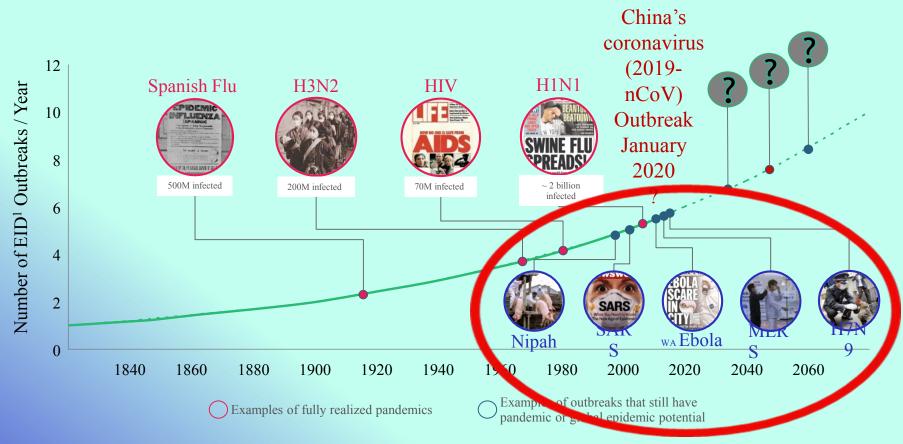
Intergovernmental Planet on Climate Change (IPCC)

UN 2018 Report (5) – 133 authors, 40 countries, 6000 papers 1.5°C vs 2°C

Global carbon dioxide emissions
-halve within 12 years -now 10?
"to avoid catastrophe"



The threat of viral outbreaks will grow rapidly ⁷



1. EID: emerging infectious disease; only diseases with zoonotic emergence are included; Reference for graph: Allen et al. (2017) Nature Communications

"Core public-health systems have been underfunded because powerful healthcare stakeholders tend to dominate policymaking and budget decisions." Olga Jonas



"Humanity does not have the universal coverage by core veterinary and human public-health systems that it needs to protect itself and its livestock from permanent microbial threats."8

"Most economic losses (c.60%) to an outbreak are due to avoidance behaviour."

Illness – 28 % Mortality/medical-12%

Core Public-Health Systems

Very high economic and health returns:

Annual economic benefits: c.US\$80 billion

• Investment: c.US\$ 3.4 billion

Benefit Cost Ratio of 24:1

Preventing noncommunicable diseases

• Annual economic benefits: c.US\$\$25 billion

Investment (prevention!): c.US\$8 billion

Global Net gain=US\$ c. 90.4 bill

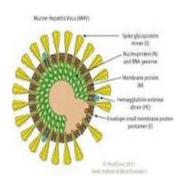
Total Global budget 2017

US\$117 trillion!

(The World spends c.US\$ 17 trillion on war and 6 US\$ billion on peace¹)



Coronavirus





FEEDING THE FUTURE

% Change in Consumption of Animal Products: 2000 - 2030

Global Food Security in an Urbanizing World

By 2050, 2/3 of the world's population will live in urban areas.



In the next 20 years



of the world's population growth will occur in developing nations.





of food for cities come from domestic sources in rural areas.

The poorest households in the developing world spend





of the... on food.



@GlobalAgDev | #GlobalAg thechicagocouncil.org/globalag



Despite the evidence, what is the main reason for general global apathy about the need for societal change regarding the sustainability of the planet and all species?

- 1. Lack of political will?
- 2. Vested interests?
- 3. Lack of clear understanding of the need for change at the local level?
- 4. Complexity of the issues?
- 5. Information overload?
- 6. Other? _____

Global Responses



SUSTAINABLE GALS





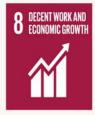
























AIM- TO END POVERTY, **PROTECT THE PLANET** AND ENSURE THAT ALL **PEOPLE ENJOY PEACE AND PROSPERITY BY** 2030.¹⁰



Slow uptake-even reversing









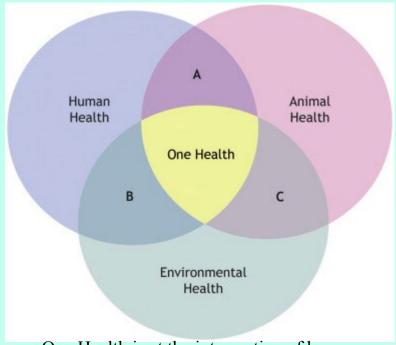


Missing Link?

UN-2030 Sustainable Development Goals Need for a *unifying common cause or purpose*to which people can readily relate!¹

One Health & Well-Being

a collaborative approach
 to achieve optimal health and well-being of all animals,
 people, plants and their shared environment. 11 12



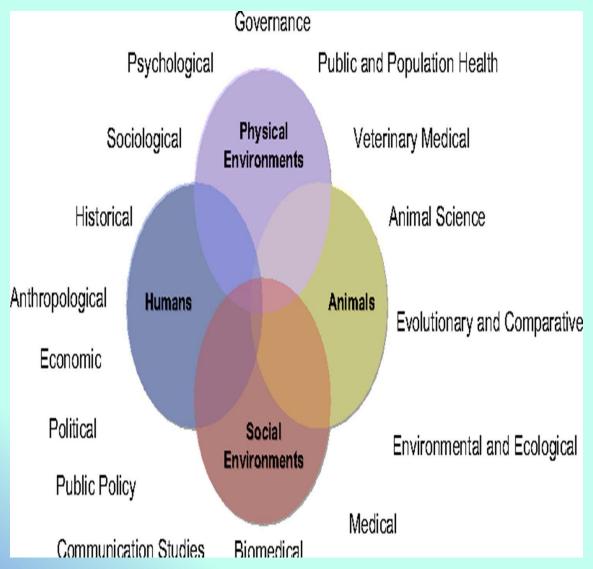
One Health is at the intersection of human health, animal health, and environmental health.¹³

One Health & Well-Being Applies to the Planet All Species

Transdisciplinary

All Policies

& Strategies



Animal-human connections, "one health," and the syndemic approach to prevention¹⁴

Linking One Health and Well-Being to the 17 UN -2030 Sustainable Development Goals





Adapted from Waage, J and Yap, C. (eds.) *Thinking Beyond Sectors for Sustainable Development*. London: Ubiquity Press.



What can be done to raise awareness of the critical importance of the UN-2030 SDGs at global, national and local levels (!)?

- 1. Global message that is credible and clear regarding the planet's future prospects and our individual responsibilities?
- 2. Social media campaigns across communities?
- Education programs formal and non-formal?
- 4. Community information sessions?
- 5. Other

Toward a New Mindset

Main Challenges?

Biggest Hurdle?¹

From seeing the

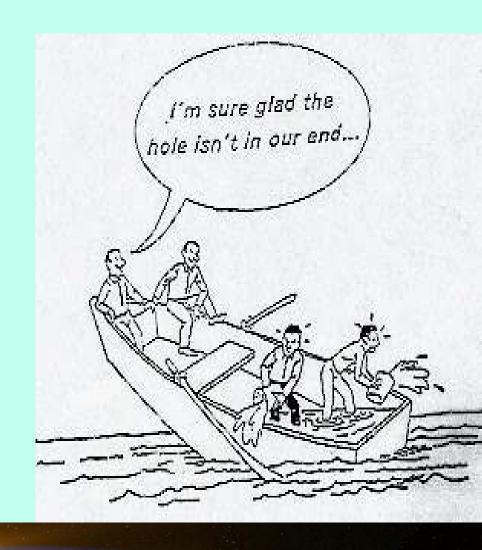
the world as a place made especially for humans and a place without limits-our task is to subdue and exploit the earth

To adopting a new paradigm a new worldview that is compatible with our needs as human beings but also an outer world that is compatible with the needs of our ecosystem.

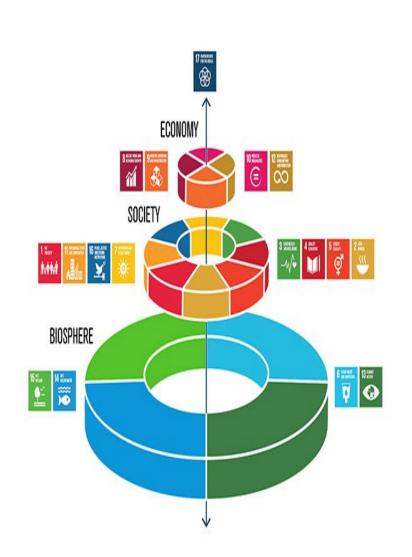
"For a start, we need to accept that business and finance are the servants of our civilization, not its masters." (14)

Edward Lucas

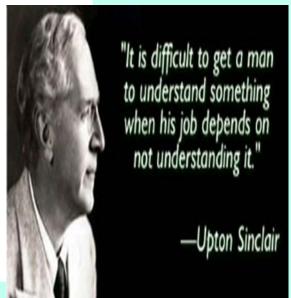
(former senior editor at *The Economist*)



Economy serving society





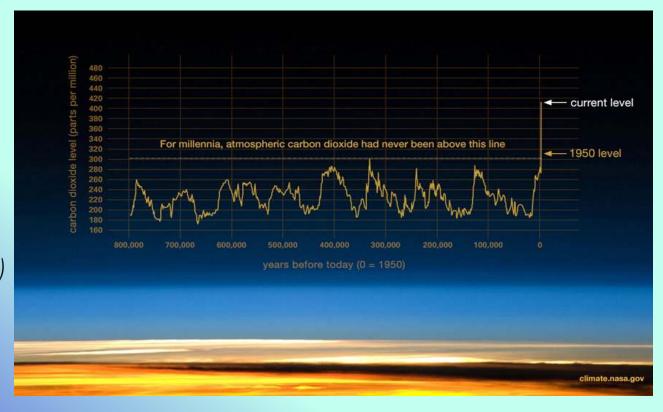






"I don't want you to listen to me.

I want you to listen to the scientists." (16)





How can we make the sustainability and well-being of the environment our top priority in this decade?

- 1. National policies and strategies based on the SDGs?
- 2. Local priorities based on national strategies?
- 3. Funding projects that can make a difference?
- 4. Holding decision-makers to account?
- 5. Other?_____

Top Priorities?(1)

Engage local communities – find common ground!

Evolve policies and practices that will sustain the planet and its people...

- lifelong learning
- multi-sectoral collaboration
- respecting 'community of life
- prevention
- commitment
- compassion
- future consciousness
- accountability to people and to nature…



INTERNATIONAL ONE HEALTH FOR ONE PLANET EDUCATION INITIATIVE (1 HOPE)¹⁶



VISION

A world where people of all ages embrace a *One Health & Well-Being (OHWB) approach* recognising the interdependencies among humans, animals, plants and their shared environment.

AIM

Build global capacity for promoting and valuing the OHWB concept and approach as the foundation for achieving the *UN-2030 Sustainable Development Goals* (SDGs).

CONTRIBUTORS Individuals/organisations from education and community groups invited from global regions.

MOTIVATION Striving to create a "more just, sustainable and peaceful world" (UN-2030 Global Goals): adopting the OHWB concept and educating the next generation of global citizens about the fragile and interconnected nature of the health and well-being of all living organisms at this time of unparalleled planetary change.

WORKING GROUP Drawn from and targeting Primary/Secondary/Tertiary education sectors and Community/Civil Society, Corporate and Government (intergovernmental/non-governmental) organisations.

COMMON 1 HOPE QUEST To foster learning about the OHWB approach and the SDGs at all levels of formal and non-formal education and to raise awareness of the long-term value of OHWB and SDG strategies in all sectors of our global community.

FOCUS

Explore possibilities (local, country, regional, global) and develop draft project proposals (e.g., curricula, resources, conferences, policy) by mid 2020 – seeking funding from national/regional/global organisations to accomplish 1HOPE stated aims.

Planning Team Members (reverse side)

FOR FURTHER INFORMATION, PLEASE CONTACT:

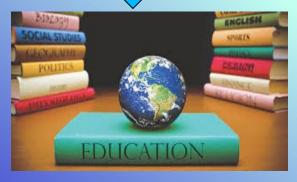
Dr George Lueddeke, Chair, 1 HOPE (glueddeke@aol.com) or
Dr Cheryl Stroud, Executive Director, One Health Commission (cstroud@onehealthcommission.org)

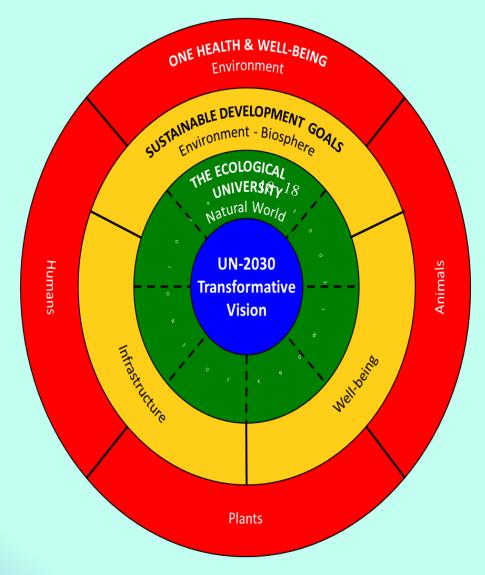
- One Health Commission (OHC) https://www.onehealthcommission.org/
- One Health Initiative (OHI) http://www.onehealthinitiative.com/
- Earth Charter International (ECI) https://earthcharter.org
- World Assembly of Youth (WAY) http://way.org.my/
- Wildlife Conservation Society (WCS) https://www.wcs.org/about-us
- **InterAction Council (IAC)** https://www.interactioncouncil.org/
- Chatham House (CH) https://www.chathamhouse.org/
- Center for Wildlife (CW) https://www.thecenterforwildlife.org/
- University of Melbourne (UM) https://www.unimelb.edu.au/
- University of Pretoria (UP) https://www.up.ac.za
- International One Health Student Alliance (IOHSA) https://isohaonehealth.wordpress.com/
- Royal Veterinary College (RVC) https://www.rvc.ac.uk/
- **London International Development Centre (LIDC)** https://lidc.ac.uk/
- Fontbonne University (FU) https://www.fontbonne.edu/
- Boehringer Ingelheim (BI) https://www.boehringer-ingelheim.at/en
- World Veterinary Association (WVA) http://www.worldvet.org/
- Southeast Asia One Health University Network (SEAOHUN) https://www.seaohun.org/
- London School of Hygiene and Tropical Medicine (LSHTM) https://www.lshtm.ac.uk/
- Wildlife Disease Association (WDA) https://www.wildlifedisease.org
- **International Veterinary Students' Association (IVSA)** http://www.ivsa.org/
- One Health Central and Eastern Africa (OHCEA) https://ohcea.org/
- World Association of Veterinary Laboratory Diagnosticians (WAVLD) https://www.wavld.org/

One Health & Well-Being









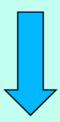
Proposed Building Blocks for the UN-2030 Transformative Vision¹⁹

Creating a "more just, sustainable and peaceful world"

(UN-2030 Global Goals)

Food for thought?

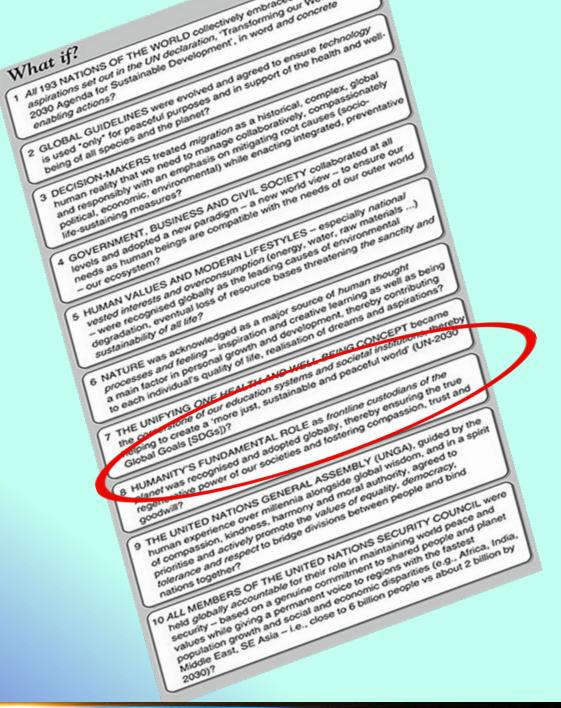
How can society become more engaged with the realities that face us and ways forward - given what we know?



Begin with dialogue on the Ten Propositions for Global Sustainability

Ten Propositions for Global Sustainability (1)





CHAPTER 13 C PROMISE DI SURVIVAL ONE HEALTH.
SURVIVAL ONE FUTURE
ONE PLANET, ONE FUTURE ocial ©G.R.Lueddeke,2020

Personal journal toward One Health & Well-Being



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Queries