









A Knowledge Dialogue:

nternational Cooperation to Prevent the "Next" **Pandemic**

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Attaining ONE HEALTH Through International Environmental Law

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Louis Pasteur : "Le microbe n'est rien, le terrain est tout"

COVID-19 gives new meaning to Pasteur's "last words": Caring for the EARTH'S terrain **is** everything!

To sustain human health, we must care the health of all of Nature: ONE HEALTH

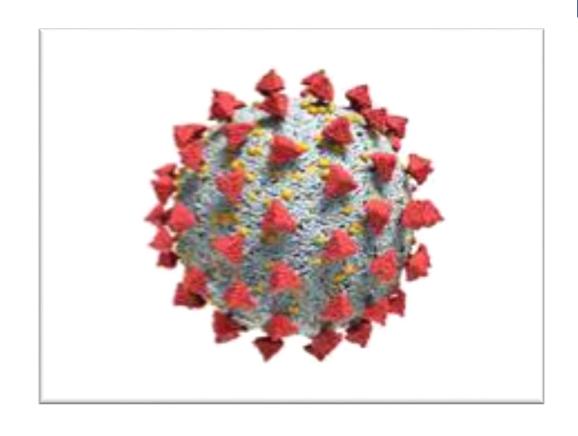


HOW DO WE PREVENT THE NEXT PANDEMIC? After this crisis, will it again be "out of sight out of mind"? Is it different this time?

COVID-19: UNGA Res. 74/270 calls for "Global solidarity"

Past Epizootic epidemics came and went, felt locally but not globally

 Can States contain the next epidemic?



OUR URGENT CHALLENGE:

INTEGRATING **ZOONOSIS INTO** INTERNATIONAL COOPERATION IN **EVERY SOCIO-**ECONOMIC AND **SECURITY DIMENSION**

- COVID-19 IS A NON-TRADITIONAL THREAT TO SECURITY AND INTERNATIONAL PEACE
- COVID-19 DISRUPTS THE WORLD'S ECONOMIC ORDER
- COVID-19 UPSETS PATHWAYS FOR ATTAINING THE SUSTAINABLE DEVELOPMENT GOALS: 2030 SDG PATHEAY IS AT RISK
- THERE **WILL** BE ANOTHER EPIDEMIC WHEN? AND HOW CAN STATES MITIGATE ITS IMPACT?

"This is the fight of a generation – and the raison d'être for the United Nations itself."

António Guterres, UN Secretary General "Remarks to the Security Council on the COVID-19 Pandemic" 9 April 2020

Even as States struggle to contain the COVID-19 Pandemic, cooperation is required to avert the <u>next</u> zoonotic infection, which is latent and here now.

Both campaigns must be waged <u>simultaneously</u>.

STATES HAVE IN PLACE THE BASIC LEGAL FRAMEWORK FOR **AVERTING** THE NEXT DISEASE

INTERNATIONAL
LAW PROVIDES
THE LEGAL
INSTRUMENTS TO
AVERT THE
"NEXT"
PANDEMIC

ALL STATES HAVE
NATIONAL LAWS
AND PROGRAMS
TO IMPLEMENT
THESE
INTERNATONAL
LEGAL
AGREEMENTS

CAPACITYBUILDING IN ALL
STATES CAN
STRENGTHEN
THEIR
BIODIVERSITY
AND PUBLIC
HEALTH REGIMES

SYSTEMS TO
IMPLEMENT A

"ONE HEALTH"
FRAMEWORK
EXIST AND CAN
AVERT THE NEXT
PANDEMIC

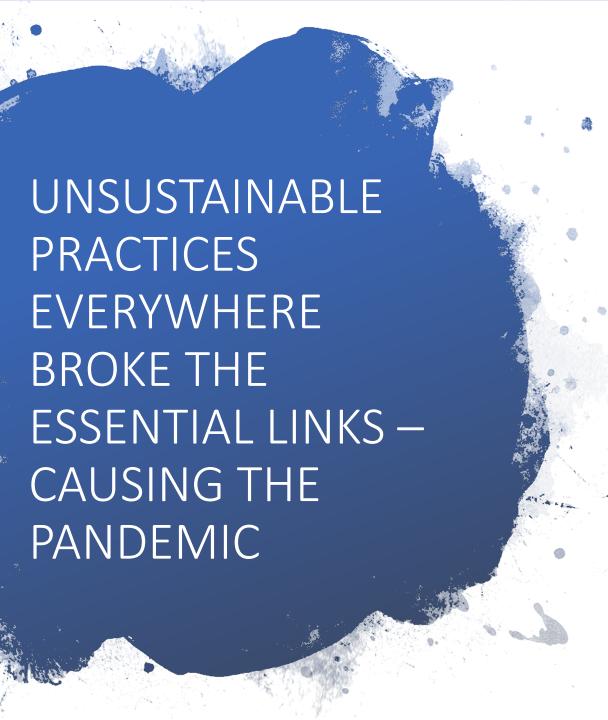
AGREEMENTS EXIST TO GUIDE STATE PRACTICE TO THE IMPERATIVES OF "ONE HEALTH"

- THE **DUTY TO COOPERATE** UNDER THE UNITED NATIONS CHARTER
- 1972 UN STOCKHOLM CONFERENCE DECLARATION ON THE HUMAN ENVIRONMENT: HUMANS HAVE A "fundamental right to ... adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being." UNGA Res. 2994 (XXVII)
- 1982 WORLD CHARTER FOR NATURE, "Nature shall be respected and its essential processes shall not be impaired." UNGA RES. 37/7
- 1992 Convention on Biological Diversity Humankind's Common Concern
- 1992 Principles of the UN Rio de Janeiro Conference Declaration and Agenda 21
- 2015 Sustainable Development Goals SDGS ARE ALL INTERDEPENDENT
- 2019 "One Health" HAS BEEN URGED by CBD SBSSTA, FAO, WHO, and others

THE OVER-ARCHING PREMISE FOR ONE HEALTH

BERLIN PRINCIPLES (October, 2019)

- "RECOGNIZE AND TAKE ACTION TO RETAIN THE ESSENTIAL LINKS BETWEEN HUMAN, DOMESTIC ANIMAL, WILDLIFE, PLANT AND ENVIRONMENTAL HEALTH"
- DOING SO IS ESSENTIAL "FOR HUMAN EXISTENCE AND WELL-BEING, FOOD AND NUTRITION SECURITY, AND SUSTAINABLE DEVELOPMENT"
- "THEREFORE TAKE ACTION TO ENSURE THE CONSERVATION AND PROTECTION OF BIODIVERSITY, WHICH INTERWOVEN WITH INTACT AND FUNCTIONAL ECOSYSTEMS PROVIDES THE CRITICAL FOUNDATIONAL INFRASTRUCURE OF LIFE ON OUR PLANET."



- EARTH TODAY EXPERIENCES
 INTERTWINED ENVIRONMENTAL
 CRISES (see UNEP GLOBAL ENVIRONMENTAL
 OUTLOOK (GEO-6)]
- THE AGREED RESPONSE: SUSTAINABLE DEVELOPMENT GOAL
 - **15**: "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss."
- THE MEANS: The "Post 2020"
 Biodiversity Framework Under the Convention on Biological Diversity (COP 15, postponed to 2021)
- THE ACTIONS TO ATTAIN ONE HEALTH: States' National Biodiversity Strategies and Action Plans (NBSAPs)

THE UN ENVIRONMENT ASSEMBLY HAS ENDORSED ONE HEALTH [UNEP/EA.3/RES 4,2017]

- Recognizes that biodiversity loss is a health risk multiplier
- Recognizes that "human, animal, plant and ecosystem health are interdependent" and "Emphasizes in this regard the value of the "One Health" approach, an integrated approach which fosters cooperation between environmental conservation and the human health, animal health, and plant health sectors"
- Encourages Member States and invites relevant organizations to mainstream the conservation and sustainable use of biodiversity to enhance ecosystem resilience, as an important safeguard for current and future health and human well-being...

TO AVERT THE **NEXT SPILLOVER** FROM ANIMALS THAT INFECT **HUMANS:** Invoke four legal regimes for protecting nature's ecosystems

VIRTUALLY ALL STATES HAVE ENACTED AND IMPLEMENTED NATIONAL ENVIRONMENTAL LAWS THAT PROMOTE **ONE HEALTH**:

- 1) PROTECT AND CONSERVE NATURAL AREAS
 WHERE ZOONOTIC VIRUSES AND BACTERIA CAN
 BE KEPT AWAY FROM HUMANS & VICE VERSA
- 2) PROVIDE CARE FOR DOMESTICATED ANIMALS OR WILD ANIMALS KEPT BY HUMANS FOR CONSUMPTION OR USE
- 3) PROVIDE PHYTO-SANITARY TRADE RULES TO AVERT PREVENT TRANSMISSION OF DISEASES
- 4) UNDERTAKE ENVIRONMENTAL IMPACT ASSESSMENTS ROBUSTLY

#1 – STEWARDSHIP OF PROTECTED AREAS

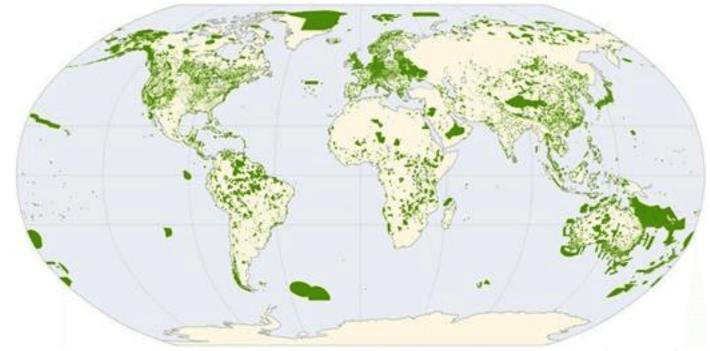
IUCN World Commission on Protected Areas

- EXPAND AND STRENGTHEN NATURAL AREAS Examples: ZAPOVEDNIKI IN RUSSIA; NATIONAL PARKS IN USA (each protected for 100+ years), NATURA 2000 NETWORK ACROSS 28 EUROPEAN UNION MEMBER STATES
- TREAT NATURAL HABITATS AS TOP SECURITY PRIORITIES Tragic killing of 12 brave rangers on 24 April 2020 at Virunga National Park in Africa exposes global failure to provide resources to secure even "protected" habitats
- EXPAND UNESCO Biosphere Reserves, World Heritage Areas, "GeoParks"
- ENHANCE & IMPLEMENT REGIONAL AGREEMENTS: 1969 African Convention on Conservation on Nature & Natural Resources; the Amazon Cooperation Treaty Organization; ASEAN Convention; Mekong River; many others.
- STRENGTHEN INTERNATIONAL AGREEMENTS: Ramsar Convention on Wetlands of International Importance, Bonn Migratory Species Convention, etc.
- ESTABLISH BUFFER ZONES around *all* protected areas, to minimize disruptions into intact natural areas & halt acts of fragmentation

Conserve and Protect 50% of Terrestrial & Inland Water Natural Areas

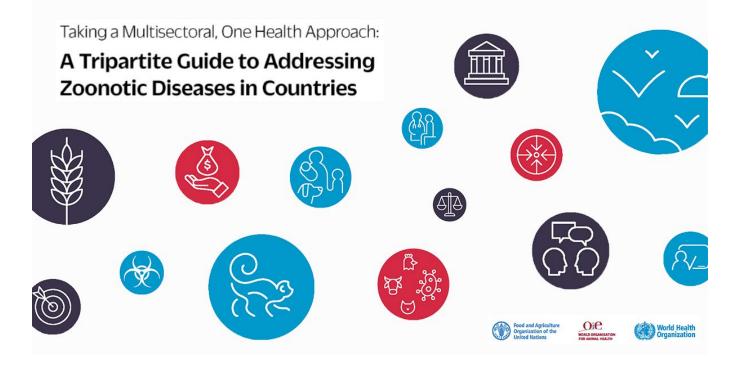
(NOW AT 14/7%; CBD's 2010 Aichi Target 11: Protect 17% by 2020) Edward O. Wilson (Harvard), Half Earth (2016)

World Data Base on Protected Areas Areas (UNEP/IUCN/WCMC)



IUCN Map of Terrestrial Protected Areas (2017)

2 — Enhance best practices for coping with zoonotic diseases — See WHO, FAO, OiE *Guide* (March, 2019) and WCS & Germany's "Berlin Principles" (October 2019) for: ONE WORLD - ONE HEALTH - ONE WATER



Tripartite Guide: Disease Control at the human-animal-environment interface

- Offers Best Practices for handling zoonotic disease outbreaks as part of over-all disaster preparedness (e.g. UN Sendai Framework) = a continuous cycle of engaging all relevant sectors
- Focuses on veterinary aspects of animal husbandry, the food chain (production, transport, slaughter and selling), hunting and trade in wild animals; animal or human healthcare workers
- Highlights Surveillance: because zoonotic diseases can be transmitted between people and animals (including vectors) or via the environment they share, surveillance must include the ambient environment
- Recognizes "The SDGs themselves reflect a One Health approach, ensuring healthy people and animals living on a healthy planet"

TRIPARTITE GUIDE INCLUDES National Case Studies of ONE HEALTH Systems (examples)

African Regional Strategic Framework for One Health: Comprehensive African Agriculture Development Programme and the African Union Inter-African Bureau for Animal Resources livestock development strategy for Africa, 2015 –2035

Cameroon's One Health Strategy: In 2016, Cameroon faced an outbreak a highly pathogenic avian influenza H5N1. Based on, a rapid outbreak response fast tracked the elaboration of an eradication plan.

Bangladesh One Health Framework: Addressed Nipah virus, spread by fruit bats through contaminated raw date palm sap consumed. Curbing human interface was achieved by a communications program for general public, care givers, health workers, sap collectors/vendors

Bhutan's One Health Secretariat: Building on the National Influenza Pandemic Preparedness Plan controls for zoonotic diseases such as rabies, anthrax, scrub typhus, and food-borne zoonotic diseases via multisectoral collaboration, including the Ministries of Health, Agriculture & Forests, Home and Cultural Affairs, and the University of Bhutan and University of Medical Sciences, and the National Environment Commission.

#3 WORLD TRADE — TRADE LAW ENABLES PHYTO-SANITARY SAFEGUARDS FOR ZOONOTIC DISEASES

ARTICLE XX, The General Agreement on Tariffs and Trade (30 October 1947) [United Nations, Treaty Series, vol. 55, p. 187]

"Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement [the GATT] shall be construed to prevent the adoption or enforcement by any contracting party of measures: ...

- (b) necessary to protect human, animal or plant life or health;...
- (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption. ..."

States Can Prioritize Cooperation Curbing The Spread of Zoonotic Diseases

1998 Agreement on the Application of Sanitary and Phytosanitary Measures ("SPS Agreement")

- Article 1. "Members have the right to take sanitary and phytosanitary measures necessary for the protection of human, animal or plant life or health, provided that such measures are not inconsistent with the provisions of this Agreement."
- Annex A: Sanitary and phytosanitary measures include acts to protect the health of fish and wild fauna, as well as of forests and wild flora, and to protect human or animal life from risks arising from disease-causing organisms in food or to protect humans or animals from plant- or animal-carried diseases, such as zoonotic diseases, and to prevent or limit other damage to a country from the entry, establishment or spread of pests. States make formal risk assessments.

States can act to harmonize ONE HEALTH protections through the existing SPS Committee on Sanitary and Phytosanitary Measures.

Close Down Unlawful Wildlife Trade: Enforce CITES

- UN GENERAL ASSEMBLY HAS STRONGLY URGED ENFORCEMENT SINCE 2013. SEE UNGA RES. 68/215, 69/314 AND 70/301 AND 5 SEPTEMBER 2017 (A/71/L.88).
- States could enforce the 1973 Convention on the International Trade in Endangered Species (CITES), by assigning priority to preventing trade in species that also evidence zoonotic diseases
- States can enact and enforce stricter domestic conditions for trade, taking, possession or transport of species included in CITES Appendices I, II and III, in order to meet **ONE HEALTH** objectives.
- States' can restrict or prohibit trade, taking, possession or transport of species *not* included in Appendix I, II or III,



#4 – STRENGTHEN USE OF ENVIRONMENTAL IMPACT ASSESSMENTS {"EIA"}

 Principle 17 of the 1992 Declaration of Rio de Janeiro on Environment & Development:

"Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority."

EIA = an effective means to sustain ONE HEALTH. Virtually all States mandate use of Environmental Impact Assessment to make a holistic analysis of any potentially significant adverse environmental impacts and the means to avoid or mitigate the adverse impacts.

Pulp Mills on the River Uruguay (Argentina v. Uruguay) (20 April 2010)

- U.N. International Court of Justice, Paragraphs 203-219 https://www.icj-cij.org/en/case/135/judgments
- "[T]he obligation to protect and preserve ... has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource."

ENSURING ONE HEALTH THROUGH EIA

WORLD-WIDE, EIA SYSTEMS ARE ALIKE:

EIA ensures that actions likely to have significant effects on the environment are subject to an environmental assessment, prior to their approval or authorization.

In the European Union, environmental assessment is undertaken on the basis of **Directive 2011/92/EU** (known as *Environmental Impact Assessment – EIA Directive*) or for public plans or programmes on the basis of **Directive 2001/42/EC** (known as *Strategic Environmental Assessment – SEA Directive*).

Consultation with the public is a key feature of environmental assessment procedures.

EIA IS READILY AVAILABLE TO DETERMINE:

- HOW TO KEEP NATURAL ECOSYSTEMS HEALTHY, TO CONTAIN SPILLOVERS OF CONORAVIRUSES.
- HOW TO MONITOR FOR ZOONOTIC RISKS
- HOW TO AVOID FRAGMENTATION OF INTACT HABITATS
- HOW TO SUSTAIN ALL OTHER INDICATORS OF ONE HEALTH

"An ounce of prevention is worth a pound of cure."
Benjamin
Franklin (1736)

- The costs of the COVID-19 Pandemic are incalculably high. What are the costs of averting the "next" pandemic? What would we pay to have averted HIV/AIDS?
- If we care for nature, nature cares for us:
 - States currently provide quite small budgets for nature conservation and the health of wild and domesticated animals
 - These are perhaps a mere 25% of the small sums that States allocate for Health Ministries
- The funds to pay for CAPACITY-BUILDING FOR ONE HEALTH exist to be allocated It is not expensive (vastly smaller than the cost of the search for a vaccine)

FINANCING EXISTS TO ALLOCATE for ONE HEALTH

- International Monetary Fund: "A green recovery is our bridge to a more resilient future." Kristalina Georgieva, 29 April 2020 (IMF FISCAL AFFAIRS: Greening the Economy, April 2020) IMF needs to include ONE HEALTH
- Realign traditional security budgets to fund non-traditional security budgets for ONE HEALTH objectives
- Assign traditional forces to protect habitats and police wildlife crime
- Go beyond a sovereign debt payment "moratorium" for States in Africa, Asia & South America, and through "debt for equity" swaps endow protected habitats & capacity building for SDG 15 and averting zoonotic disease spillovers
- To cope with COVID-19, the International Monetary Fund should issue additional "Special Drawing Rights" (SDRs), conditioned on States achieving benchmarks toward attaining the Sustainable Development Goals (SDGs). \$283 billion SDRs were issued for the 2009 Crisis— Issue New SDGs now for recovery and for "next" PANDEMIC PREVENTION
- National Currency Quantitative Easing can fund ONE HEALTH priorities

THE PROGNOSIS: MORE ZOONOTIC SPILLOVERS ARE INEVITABLE – *States Can Prepare*

- THE SCIENCE: THE LARGE HUMAN POPULATION IS DISTURBING NATURAL AREAS IN ALL REGIONS, DISRUPTING THE RESERVOIRS FOR VIRUSES AND BACTERIA. A NOVEL CORONAVIRUS, DISLODGED FROM ITS TRADITIONAL HOME, WILL FIND A NEW HOST RESERVOIR IN A HUMAN, AND HUMANS WILL SHARE THIS INFECTION, LOCALLY AND, WITH TRAVEL AND TRADE, GLOBALLY.
- INTERNATIONAL AND NATIONAL ENVIRONMENTAL LAW DOES NOT YET EXPRESSLY ADDRESS ZOONOSIS & NATURE CONSERVATION. This is a "gap," as is the lack of any agreement of forest stewardship (proposed for 1992, it might have averted zoonotic spillovers). Since States require 5-10 years to negotiate any new international environmental conventions, to avert zoonotic spillovers, States need to implement existing laws beginning with the *four legal regimes are available*.
- Lacking treaties on zoonosis, Principles of ONE HEALTH provide guidance, as do the general principles of environmental law. The UN General Assembly has an opportunity to codify these principles in 2022 at "Stockholm +50."

Thank You and Be well!

- •UN SG: "This is the fight of a generation and the raison d'être for the United Nations itself."
- •IMF: "A green recovery is our bridge to a more resilient future."
- •Pasteur+: The microbe is indeed "nothing," and international cooperation to maintain holistic ecosystem health is everything.