

Review Paper

Safeguarding Balance and Maximizing the well-being of people, animals, and ecosystems can be accomplished through Integrating the Principles of Bioethics and One Health

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ABSTRACT

For many years, unethical people have pursued activities and produced goods that either directly or indirectly interfered with the lives, processes, and life-support systems of other living creatures. The negative outcomes of those actions include loss of biodiversity, abnormal climate change, a high burden of zoonotic diseases, global economic crises, famines, etc. Revelations that the health of people is intimately linked to the health of animals and the shared environment have opened a portal that recognizes one health as a framework to sustainably balance and optimize the health of people, animals, and bionetworks. Increasingly, nations are learning, defining and implementing the principles of one health as a way of safeguarding balance and maximizing the health of people, animals, and ecosystems. Integrating the principles of bioethics and one health beyond national boundaries is the most effective way to maintain equilibrium and optimize the welfare of people, animals, and ecosystems. Sadly, the principles of bioethics and one health have not been combined in most countries. This work aimed to draw attention to integrating the principles of one health and bioethics as a powerful, effective, and efficient way to support nations in maintaining balance and maximizing the health of people, animals, and ecosystems. Moreover, this paper focused on the concepts of integrating the principles of one health and bioethics to ensure rightful symbiotic relationships as an added value of captivating a holistic and concerted approach to improving the well-being of humans, animals, and the environment.

Keywords: one health, principles of bioethics and one health, symbiotic relationships, animals and humans' one health, zoonotic diseases, Manhattan Principles on One World and One health

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Introduction

Deductive reasoning applied science and technology, as well as multi-, inter-, trans-disciplinary, and intersectoral modes of practice, form the foundation for solving many of the global problems. “A healthy humanity is concerned about its humanity-how compassionately it acts toward its own kind and toward other sentient beings and the Earth itself” [1]. By mid-1800's a German scholar named Rudolf Virchow said, that “Between animal and human medicine there is no dividing line—nor should there be” [2]. If this proponent had earlier global adoption, then many lives would have been saved and health-maintenance methods to prevent the spread of zoonotic infectious diseases would have been implemented. Deductive reasoning has led to the existence of one health as an approach for saving human lives, the lives of other living things, and the integrity of the environment. The twelve Manhattan Principles on "One World, One Health"

were developed in September 2004 during a symposium that was arranged by several agencies and brought together international animal and human health related specialists [3-5]. One health allows the adoption of multi-, inter-, and trans-disciplinary and intersectoral modes of practice to ensure balance and optimize the health of people, animals, and ecosystems [6]. These practical approaches, which are useful to individuals, communities, ethicists, bioethicists, healthcare professionals, politicians, academicians, researchers, and policymakers, enable the integration of the principles of bioethics and one health to uphold standards to protect endangered species, humane treatment of domestic and wild animals, and sustainable use of agricultural and other natural resources. They also enable these actors to actively participate in the prevention of zoonotic diseases, global warming, biodiversity loss, air pollution, water pollution, and threats to national economic security. Increasingly, nations are learning and implementing the principles of one health as one way to safeguard and improve the health of their citizens. However, there is still a long way to go to achieve the goals and principles of one health. The appropriate and maximal utilization of the knowledge and skills gleaned from science and technology, coupled with the effective application of ethical theories and bioethical principles, will uphold actions, practices, and policies to implement one health principles and goals to support nations in maintaining balance and maximizing the health of people, animals, and ecosystems. Some countries have employed these strategies extensively to achieve many of their ambitions. However, there is room to optimize the outcome of those ambitions, including one health-related ambition, particularly in developing countries. Philosophic, scientific, technological, and sociological integration of humans, animals, and environmental rights will promote a nonharmful relationship between living things themselves and the environment.

For a long time, unethical individuals have engaged in actions and created products that directly or indirectly disrupt other living things lives, life processes and life-support systems. The negative outcomes from those actions include loss of biodiversity, abnormal climate change, high burden of zoonotic diseases, global economic crises, famines etc. Frequently parasitism, human centred predation coupled with consuming non-standard animal products have distorted the standard of living for all people around the world and other life supporting systems. No other intervention can do more to prevent these catastrophes from occurring again than guaranteeing equilibrium and maximizing the well-being of humans, animals, and ecosystems through *integrating the principles of bioethics and one health in all nations*. Unfortunately, in most nations, *the principles of one health and bioethics have not been integrated*. As a result, actions that do not *safeguard balance and maximize the well-being of people, animals, and ecosystems* persist throughout the world because people continue to pursue a variety of activities and produce goods that either directly or indirectly interfere with other living lives, life processes, and life-support systems. To sustainably end these flaws, there is a need of the most equitable and ethical means to ensure all people have crucial wisdom to support in choosing and pursuing the correct actions that do not destroy nature, life processes and life supporting structures. This synthetic, critical analysis and review work aimed to shed attention to reminding *all world' nations to integrate the principles of one health and bioethics as a powerful, effective, and efficient way for safeguarding, maintaining balance and maximizing the health of people, animals, and ecosystems*. This paper specifically addressed the ideas of combining the principles of bioethics and one health as a framework to guarantee appropriate symbiotic relationships and the added benefit of adopting a comprehensive and concerted approach to enhance the health and well-being of people, animals, and the environment.

Integrating the principles of bioethics and one health to safeguard the comfort of ecosystems

Spectacular advances in understanding the contributions of biotic and abiotic factors to ensuring the possibility of life on earth have opened a portal that reminds humans to maintain the integrity of the environment and respect the lives of all living things. Biotic factors are any living components (Plants, Animals, Fungi, Bacteria and Monera) while Abiotic factors are any non-living component (temperature, climate, water, soil air etc.) [7]. Everything that interacts in a certain area, both living and non-living, is referred to as an ecosystem. The earth is fortunate to have a unique environment among the nine planets that can support all life forms. Empirical evidence suggests that the world is around 4.5 billion years old. The earliest known forms of life

on Earth were simple-celled organisms, or prokaryotes, which appeared between 3.5 and 4.1 billion years ago [8]. Other organisms arose through intricate evolutionary processes supported by modifications in the environment and molecules. Not just humans own the earth; all living creatures do. For this reason, humans do not have rights to destroy the earth. However, because of several factors like higher intelligence of humans than organisms, different human centred egoism (such as economic related egoisms), humans have wounded the world and continue to destroy its ecosystems. The humans' relationship with nature has not been always favourable and equitable possibly because humans have considered themselves as the master of controller for all most all things on the earth. What is painfully, humans have wounded the world and its environment without knowing that they were harming themselves.

With bioethics and one health approach, humans were reminded that a healthy humanity is concerned about its humanity—how compassionately it acts toward its own kind, other living things, and the Earth itself. These words of inspiration and caution declared that if we take care of the earth, the earth will feed us, and that when we live in harmony with Nature, Nature will take care of us. Using the ahimsa principles [9], which have to do with avoiding harm or injury while advancing the welfare of people and society, it is possible to realize such inspiration. Living sustainably in a self-sustaining ecology is feasible when one practices ahimsa. 1) There must be a steady supply of energy (all life on Earth derives from the sun); 2) there must be living things capable of converting energy into organic compounds (plants autotrophically photosynthesize); and 3) there must be material recycling between living things and the environment. Ensuring a self-sustaining environment should be one of the core goals of a health approach. It is feasible to accomplish this goal if everyone adopts the four bioethical principles of beneficence, justice, autonomy (veracity), and do no harm. Therefore, to maintain environmental standards and guide policymakers and companies toward a more holistic approach to defining and accomplishing their many goals, including guaranteeing healthy lives and well-being for all, it is necessary to incorporate the concepts of health and bioethics.

Abnormal climate change and extreme weather are very dangerous as they disturb the appropriate interaction of biotic and abiotic factors. El Niño Southern Oscillation (ENSO), the Earth-Sun relationship, and human activities are the major influential factors leading to abnormal climate and extreme. ENSO has the potential to significantly impact important health determinants by changing the climate [9-10]. Extreme events like drought and flooding linked to ENSO have been reported to have consequent implications for ecosystems, food security, air and water quality, and the safety of one health infrastructure. El Niño Southern Oscillation (ENSO), the Earth-Sun interaction, and human activities have all harmed the ecosystem. But just because harm has already been done doesn't mean it has to continue. Instead, we ought to focus on mending the harm and halting the mechanisms that propagate it, such as the environmental effects of fossil fuels. As such, international declarations and ambitions we have today, such as the Sustainable Development Goals Declaration, the UNESCO Universal Declaration on Bioethics and Human Rights, and the vision of various world regions and nations, have given due regard to ensuring the protection of the environment, the biosphere, and biodiversity.

A non-harmful interaction between living creatures and their surroundings will be facilitated by the philosophical, scientific, technological, and sociological integration of human rights, animal rights, and environmental rights. In the 1970s, Arne Naess and colleagues developed deep ecology as an environmental philosophy and social movement concept that argue that humans must radically change their relationship to nature from one that values nature solely for its usefulness to human beings to one that recognizes nature for having an inherent value [11]. Namely, the eight principles of deep ecology are: 1) intrinsic value; 2) diversity; 3) vital needs; 4) population; 5) human interference; 6) policy changes; 7) quality of life; and 8) obligation of action [11-12]. These principles have distinct explanations and applications. One of the most important applications of these principles is to implement the Manhattan Principles on "One World, "One Health." The twelve Manhattan principles on "One World, "One Health are shown in table 1. Veracity, beneficence, justice, and nonmaleficence should be used as a bridge and liaison to integrate the

principles of bioethics and health and deep ecology to implement ambitions for *safeguarding balance and maximizing the well-being of people, animals, and environment.*

Integrating the principles of bioethics and one health to maximize the well-being of people, animals and other living things

Establishing suitable symbiotic relationships and integrating the principles of health and bioethics can be an influential and effective way to ensure balance and optimize the health of people, animals, and ecosystems. A symbiotic relationship is when two or more biologically distinct species interact with one another [13]. This relationship can be: 1) mutualism where both species benefit from the relationship, 2) amensalism (competition), wherein two organisms fight for the identical resources in an environment; 3) commensalism, in which one organism gains an advantage while the other is neither aided nor hindered; 4) parasitism, in which an organism gains an advantage while the other suffers; and 5) predation, in which an organism, the predator, kills and consumes the prey.

Given the vital role of the mutualistic relationship in ensuring both species benefit from the relationship, it is not an error to affirm that promoting mutualism can help overcome many of the global problems, including hunger. All animals need food and nutrition to survive. However, all animals do not have the capacity to make their own food. Producers such as plants are creatures that transform inorganic substances into organic ones. Consumptive organisms, such as all animals, are those that draw nutrition from other living things. Decomposers such as fungi and worms are creatures that break down the remains of dead plants and animals. The mutual relationship between plants, decomposers, and animals is the saviour of organisms on this earth because it enables all organisms on this planet to get the food and nutrients they need to survive. Animals produce carbon dioxide. Plants use carbon dioxide to make chemicals for life, namely carbohydrates, lipids, proteins, and vitamins. Air is a shared resource for all organisms. 78.0840% nitrogen, 20.946% oxygen, 0.934% argon, 0.040% carbon dioxide, and trace amounts of other gases make up air [14]. Integrating the principles of bioethics and one health to ensure appropriate mutualism and commensalism as strategies to raise the standard of living for all people around the world offers a holistic, rational appraisal of our place in the world and how best we can live for the good of the life community of the planet

Table 1: Showing twelve Manhattan Principles on “One World, “One Health

Principles	Reference
1. “Recognize the essential link between human, domestic animal and wildlife health and the threat disease poses to people, their food supplies and economies, and the biodiversity essential to maintaining the healthy environments and functioning ecosystems we all require”.	[3]
2. “Recognize that decisions regarding land and water use have real implications for health. Alterations in the resilience of ecosystems and shifts in patterns of disease emergence and spread manifest themselves when we fail to recognize this relationship”.	
3. “Include wildlife health science as an essential component of global disease prevention, surveillance, monitoring, control and mitigation”	
4. “Recognize that human health programs can greatly contribute to conservation efforts.	
5. “Devise adaptive, holistic and forward-looking approaches to the prevention, surveillance, monitoring, control and mitigation of emerging and resurging diseases that take the complex interconnections among species into full account”.	
6. “Seek opportunities to fully integrate biodiversity conservation perspectives and human needs (including those related to domestic animal health) when developing solutions to infectious disease threats”	
7. “Reduce the demand for and better regulate the international live wildlife and bushmeat trade not only to protect wildlife populations but to lessen the risks of	

<p>disease movement, cross-species transmission, and the development of novel pathogen-host relationships. The costs of this worldwide trade in terms of impacts on public health, agriculture and conservation are enormous, and the global community must address this trade as the real threat it is to global socioeconomic security”</p> <ol style="list-style-type: none"> 8. “Restrict the mass culling of free-ranging wildlife species for disease control to situations where there is a multidisciplinary, international scientific consensus that a wildlife population poses an urgent, significant threat to human health, food security, or wildlife health more broadly” 9. “Increase investment in the global human and animal health infrastructure commensurate with the serious nature of emerging and resurging disease threats to people, domestic animals and wildlife. Enhanced capacity for global human and animal health surveillance and for clear, timely information-sharing (that takes language barriers into account) can only help improve coordination of responses among governmental and nongovernmental agencies, public and animal health institutions, vaccine / pharmaceutical manufacturers, and other stakeholders”. 10. “Form collaborative relationships among governments, local people, and the private and public (i.e.- non-profit) sectors to meet the challenges of global health and biodiversity conservation”. 11. “Provide adequate resources and support for global wildlife health surveillance networks that exchange disease information with the public health and agricultural animal health communities as part of early warning systems for the emergence and resurgence of disease threats”. 12. “Invest in educating and raising awareness among the world’s people and in influencing the policy process to increase recognition that we must better understand the relationships between health and ecosystem integrity to succeed in improving prospects for a healthier planet”. 	
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Abnormal climate change distorts the mutual relationship between plants, decomposers, and animals. For the most part, climate change impairs the metabolic processes that take place in plants. Carbohydrates, proteins, lipids, minerals, water and vitamins are essential chemical components of life for all living things. The unavailability of the chemicals of life indicates disrespect for life processes. Abnormal climate change is one of the factors leading to the insufficiency of the chemicals of life. Nitrogen is an essential element for the synthesis of amino acids (Molecules of Life) [15]. Most living things have no capacity to directly use this nitrogen from the atmosphere. The nitrogen cycle is the process by which living things get nitrogen. Some nitrogen-fixing bacteria play roles in the cascade of plant nitrogen fixation. Heavy rain leads to increased soil acidity due to acid rain [16]. The higher acidity of the soil kills some nitrogen-fixing bacteria, which results in insufficient nitrogen for plants. This reduces the capacity for protein synthesis and other metabolic processes that take place in plants. Higher temperatures reduce the rate of photosynthesis due to the closure of stomata. Higher temperatures also impair protein synthesis and, in fact, denature some of the already-formed proteins in plants. Moreover, abnormal climate change causes a rise in the prevalence and incidence of certain diseases and pests known to affect plants. The end results of all these are famines, economic crises, diseases, etc. Typically, rural, agriculturally based populations are severely affected. Increasing the degree of risk predictability is one of bioethics' goals. This is so because the moral precept of respect for all life serves as the foundation for bioethics. This means that we should all try to live in a non-violent manner since, in the end, when we hurt sentient animals or the environment, we not only hurt ourselves but also degrade and depress ourselves and the planet. With bioethics, it is possible to support such rural, agriculturally based populations in being resilient to the impact of abnormal climate change.

Throughout the world harmful interactions between living things and the environment have frequently caused viral, parasitic, bacterial, food and water borne diseases, diseases of poverty, famines, economic crises, etc., which have either directly or indirectly interfered with the systems to maximize the well-being of people and animals worldwide. These occur because people

continue to pursue a variety of activities and produce goods that either directly or indirectly cause harmful symbiotic relationships that do not support the life-support systems. Studies have affirmed that 60% of known human infectious diseases have their source in animals (whether domestic or wild), as do 75% of emerging human diseases and 80% of the pathogens that could potentially be used in bioterrorism [17]. Several infectious disease outbreaks in the past, including West Nile Virus, Ebola haemorrhagic fever, SARS, monkeypox, mad cow disease, and avian influenza, have been traced back to the unfavourable interactions between humans and animals and other organisms. According to some estimates, infections cause more than 20% of the world's food animal output to be lost [17]. This implies that even diseases that do not spread to people can have a major negative impact on public health because of the resulting shortages and deficiencies. Typically, factors contributing to these tragedies include unethical human-centred predation coupled with consuming animal non-standard products (such as bushmeat), parasitism and the abnormal climate change. Accordingly, harmful interactions between living things and the environment severely affect the health of populations in developing countries living in poverty. The negative impact of harmful interactions between living things and the environment can vary depending on several factors, such as the types of harmful symbiotic relationships (parasitism), the status of the affected host (intermediate or definitive hosts), the physiological condition of the infected host, etc.

Numerous parasitism can potentially result in harmful effects for humans' health and other animals. It is estimated that over 300 species of parasites can possibly be passed on to humans; two billion people worldwide are infected with at least one parasite species; and three million suffer from parasitosis [18]. Both internal and external parasites can harm the host. For instance, most parasites cause a harmful mechanical impact via damaging the skin and tissues of other living things. External parasites can be poisonous and have been linked to several illnesses, including malaria and illnesses originating from ticks. Among other parasitic diseases, malaria has been the deadliest parasitic illness and the leading cause of mortality for people since ancient times. As of the 21st century, malaria continues to be the deadliest parasitic disease and the most prevalent cause of fever in people, especially in tropical areas, despite decades of international and national efforts to eradicate it [17]. Worldwide, the United States of America (USA), Canada, Europe, and Russia have eliminated malaria. Malaria causes approximately 2000 deaths each day, especially across the tropical and subtropical world. A total of 198 million cases (within a range of 124 million to 283 million) of malaria were reported in 97 countries, territories, and areas in 2013, putting about 3.2 billion people at risk. About 584,000 people (range: 367,000–755,000) died from the illness in sub-Saharan Africa that same year, most of them youngsters under the age of five. Internal parasites can have toxic consequences that lead to severe allergic reactions, haemolysis, and major organ disruptions. Plasmodium species, which cause malaria, do all these. In addition to their mechanical and poisonous effects, parasites can cause harm by competing with the host for food, depriving it of essential nutrients like vitamin B12, or, in the case of hematophagic parasite infection (feeding on blood), such as duodenal hookworm [18]. Intestinal parasites are said to alter the normal flora of the stomach and produce diarrhoea, which is the primary cause of morbidity and mortality in developing nations [18]. In all countries, the improvement of sanitary conditions and active and effective policies for parasite control measures can reduce mortalities and morbidities linked to parasitism.

Because all living creatures own the world the interactions between themselves, and the environment will continue to occur. Humans' relationship with nature has not always been favourable and equitable, possibly due to their higher intelligence than other living things. However, by integrating the principles of bioethics and one health to maximize the well-being of people, animals, and other living things, such human-centred practices must come to an end. "Bioethics demands that we pay attention to these various means and consequences, and how our means and ends might violate the principle of ahimsa. We are, for the sake of our humanity-our dignity and integrity bound to avoid causing harm or injury to any sentient being or to the biospheric ecosystem, when such harm or injury can be avoided" [1]. Thanks to all those who realized that, such unethical practice should change. In the 2015 report entitled "Environmental

Sustainability for Human Well-Being in the Post-2015 Development Agenda," The United Environment Programme (UNEP) claimed that "we can ensure a life of dignity for all" [20]. To ensure that every living thing is respected as an end and treated as such when possible [21-23], the ethics of life for all must be established.

A comprehensive and equitable decentralized implementation framework for integrated principles of bioethics and one health

To ensure that everyone gains wisdom to safeguard balance and maximize the well-being of humans, animals, and the environment requires a decentralized implementation system that is both egalitarian and comprehensive. A reminder to preserve the environment and value the lives of all living beings has been made possible by remarkable progress in our understanding of the roles played by biotic and abiotic variables in enabling life on Earth. Although much has been done to enable different actors to actively participate in the prevention of zoonotic diseases, global warming, biodiversity loss, air and water pollution, and threats to national economic security as strategy to implement one health approach, there remain many to be done to ensure effective and efficient implementation of one health ambition, particularly in developing countries. Because, one health approach concerns the health of all people, all animals and their ecosystems [24-25], its implementation should not be academics and experts centred, rather it should be community centred. Actions, practices, and policies to implement one health principles and goals will be supported by the appropriate and maximal utilization of the knowledge and skills gained from science and technology, along with the effective application of ethical theories and bioethical principles. This will support nations in maintaining balance and maximizing the health of people, animals, and ecosystems. Integrating the concepts of bioethics and one health to ensure that everyone acquires the wisdom necessary to protect equilibrium and maximize the well-being of people, animals, and the environment.

Most experts in one health strategy who are interested in it most likely reside in cities or towns. They do not go into jungles to hunt animals. They do not go to raise livestock. They do not travel anywhere to cultivate. Simultaneously, most students studying every idea in a one health approach reside in cities or towns. As a result, they rarely engage with animals. On the other hand, people who live in rural areas usually engage in animal interactions. Zoonotic illnesses usually impede their health [26]. Farmers adore their domestic animals, thus even though these things zoonotic diseases and other tragedies like poverty, it doesn't harm them because those animals were not given the required care. The causes of these catastrophes are inequality, a lack of decentralization, and fairness regarding the empowerment of all people, particularly the farmers who make up the communities to ensure suitable symbiotic relationship as an added value to improving the health and well-being of humans, animals, and the environment. Typically, the way that wealthy people feel about meat is nearly the same as that of impoverished people. The way that people in rural areas and urban areas feel about meat is nearly the same. The only distinction is that wealthy individuals can easily obtain this type of meat. Some villagers who reside near forests typically interact with wild animals. Without a doubt, the underprivileged who live close to the forest would eventually hunt wild animals to obtain bush meat. Regretfully, occasionally, bushmeat becomes tainted with illnesses like viruses or bacteria, leading to their global spread and the deaths of millions of people. Several historic and epidemiologic clues indicate human centred predation as major contributors for various deadly diseases like Ebola; COVID19. When an epidemic or pandemic occurs, experts who are interested in one health strategy are called upon. But why this flawed practices?

All questions and problems regarding the effective fusion of bioethics and one health to ensure *well-being of people, animals, and environment must* be addressed and resolved to preserve equilibrium and advance the welfare of humans, animals, and ecosystems globally. The eight principles of deep ecology and the twelve Manhattan principles of one world and one health are extremely unlikely to be achieved due to poverty, the general public's love of meat, and human-centred economic-related egoism. These claims align with what Craig Stephen (2022) and colleagues say: "One Health most often has people as the primary beneficiaries" [27]. They further posed an excellent

question: “How must One Health policies and practices change to make animal, plant, and ecosystem health a primary focus that is influenced by human and environmental factors?” [27]. Difficult philosophical questions to ask are: 1) Does eating meat always meet a person's basic needs? 2) Is it OK for people to kill animals just for the pleasure of consuming meat? Deep ecologists may use the third deep ecology principle (“vital needs”) to answer this question. This principle states that humans have no authority to decrease the diversity of non-human life unless doing so is necessary to meet those requirements. Furthermore, deep ecologists would openly declare that farming and meat consumption are immoral because they destroy animals and are not vital for human survival. Experts in nutrition and medicine would respond that meat is an excellent source of essential nutrients and proteins for the proper growth and development of the human body. Therefore, eating meat would occasionally be essential for human survival. One health experts and epidemiologists would likely respond similarly to dietitians, and perhaps since they are aware of the risks associated with bushmeat consumption, they would also say that people should not consume it. All these responses would make impoverished peasant hunters who live close to the forest happy. Currently, the peasant hunters are aware that meat provides nutrients and proteins that are essential to the growth and development of the human body. However, hunter peasant folks cannot purchase or obtain safe meat from the market due to their poverty they are not going to give up on exploring the forests for bushmeat. Moreover, most likely because hunter peasants do not have wisdom to support in appropriate use know of the knowledge obtained or they possess to improve their own and other people's chances of surviving, they are determined to keep visiting the jungles in quest of bushmeat. The villager hunters will intensify their practice and never stop until they die, either wild creatures will instantly kill them, cause physical injuries, inject certain poisonous substances into their bodies, or expose their bodies to certain deadly pathogens. Those infections are now prepared to infect every member of the communities that these hunters inhabit. While spreading in the community and across the population, such pathogens kill several individuals, wreaking havoc on society. Simultaneously, these pathogens have already purchased tickets for vehicles, motorbikes, airplanes, ships, and other modes of transportation to move throughout the entire community, nations, and world. These infections carry out their function while traveling by developing detrimental connections with human tissue. Human immune systems are involved in the defence against such infections. However, due to immune failure, a weak immune system in some individuals, or a higher degree of pathogenicity, such pathogens claim the lives of tens of thousands, if not millions, of people. When considerable harm has already transpired, epidemiologists, public health experts, legislators, economists, and other relevant parties are informed. Science and technology are usually applied to manage infections, but typically after they have become more severe. People, communities, politicians, academics, medical professionals, ethicists, bioethicists, researchers, policymakers, and others who may have addressed or prevented those illnesses are therefore indirectly responsible for experts and academic implementation strategy for a one health approach.

However, the issue remains: who was responsible for sparing these lives, along with the hunters' lives in the community? The answer is that a philosopher, ethicist and bioethicist would have been an appropriate person to save such lives and maintain other life-supporting systems. But how? Bioethics is a bridge to the future—it is the domain of wisdom [28-30]. Using normative and applied ethics (bioethics), the philosopher would have provided wisdom to villager hunters and other community members to pursue correct actions that respect nature, including wild animals. Villager hunters who adhere to deontology can make moral decisions, follow through on them, and carry out their responsibilities in a way that respects the law and the natural world. Villager hunters and other community members would determine and follow the optimum course of action under consequentialism to preserve equilibrium and maximize the welfare of humans, animals, and the environment. Villager hunters and other community members can develop the necessary moral qualities using virtue ethics to help preserve equilibrium and optimize the welfare of people, animals, and the environment. If the hunters in the village and other community members were wise enough to know that eradicating poverty improves health and wellbeing for all people, then they could have informed government anti-poverty officials about the possibilities of preserving

equilibrium and maximizing the welfare of people, animals, and the environment. Thus, put an end to hunting wild animals and avoid any health problems resulting from predation by humans. Who should be such a philosopher? The answer is that all people, but particularly health professionals, global health experts, and others, should exercise caution to favour the control and prevention of harmful interactions between living things and the environment. Thus, one health approach should not be an expert or academic-centred approach. To assist the cessation of all adverse effects resulting from detrimental interactions between living things and their surroundings, a thorough and equitable decentralized implementation framework for integrated principles of bioethics and health is required.

What has happened in the past cannot be altered. However, there is hope for altering the future. Following the motto, which states that we must change the world by ensuring that no one is left behind [31], it should be essential to adopt a strong and fair decentralized implementation framework for all ambitions to guarantee reaching better society we desire. A better world we want can be attained only when there is safe balance and maximal well-being among people, animals, and the environment. One way to accomplish this is to design a comprehensive and equitable decentralized implementation framework for integrated principles of bioethics and health. Deep ecology affirms that there is no denying that people have caused nearly permanent harm to the natural world. But just because harm has been done doesn't mean it has to continue. Instead, we should focus on making repairs and halting the processes that cause more harm, including the environmental effects of fossil fuels. Bioethics holds that environmental issues, animal rights, and human rights all deserve fair and equal consideration. To ensure transgenerational equality, wisdom should be applied with consideration for the well-being of future generations. The appropriate and maximal utilization of the knowledge and skills gleaned from science and technology, coupled with the effective application of ethical theories and bioethical principles, will uphold actions, practices, and policies to implement one health principles and goals to support nations in maintaining balance and maximizing the health of people, animals, and ecosystems. At the 2020 United Nations High-level Political Forum session, ministers committed to "strengthening the science-policy interface through evidence-based policymaking, support for research and development, harnessing science, technology, and innovation, and leveraging technologies to promote an inclusive digital economy and resilience across sectors" [32]. The twelve Manhattan Principles on one world and one health should be fully implemented with the help of these commitments. Accordingly, all humans must be empowered with wisdom to support avoiding the negative impacts of amensalism, parasitism, and predation by merging the principles of bioethics and health. Thus, there is a need for a comprehensive and equitable decentralized implementation framework for integrated principles of bioethics and one health in all nations. It should always be worth remembering that maintaining balance and maximizing the well-being of people, animals, and ecosystems can be accomplished through integrating the principles of bioethics and one health.

Conclusion

Integrating the principles of bioethics and one health is a potent, effective, and efficient framework to preserve equilibrium and optimize the health of humans, animals, and ecosystems. In all nations, excellent reasoning and a keen appreciation of multi-, inter-, and trans-disciplinary and intersectoral modes of practice to ensure balance and optimize the health of people, animals, and ecosystems will be paramount in ensuring a comprehensive and equitable decentralized implementation framework for integrated principles of bioethics and health. However, how to achieve a comprehensive and equitable decentralized implementation framework for integrated principles of bioethics and one health remain mysterious. To safeguard balance and maximize the well-being of people, animals, and the environment in comprehensive and equitable decentralized manners, new approaches must be developed.

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