

**GROUP ASSIGNMENT:**

**Principles of Ecological Health**

**Submitted By:**

**Group 6**

**Submitted To:**

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## **Ecological Health:**

Ecological health is a term that has been used in relation to both human health and the condition of the environment.

- In medicine, ecological health has been used to refer to multiple chemical sensitivity, which results from exposure to synthetic chemicals (pesticides, smoke, etc.) in the environment, hence the term ecological.
- The term has also been used in medicine with respect to management of environmental factors (taxes, health insurance surcharges) that may reduce the risk of unhealthy behavior such as smoking.
- As an urban planning term, ecological health refers to the "greenness" of cities, meaning composting, recycling, and energy efficiency.
- With respect to broader environmental issues, ecological health has been defined as "the goal for the condition at a site that is cultivated for crops, managed for tree harvest, stocked for fish, urbanized, or otherwise intensively used."

Ecological health differs from ecosystem health, the condition of ecosystems, which have particular structural and functional properties, and it differs from ecological integrity, which refers to environments with minimal human impact, although the term ecological health has also been used loosely in reference to a range of environmental issues. Human health, in its broadest sense, is recognized as having ecological foundations.

The term health is intended to evoke human environmental health concerns, which are often closely related (but as a part of medicine not ecology). As with ecocide, that term assumes that ecosystems can be said to be alive (see also Gaia philosophy on this issue). While the term integrity or damage seems to take no position on this, it does assume that there is a definition of integrity that can be said to apply to ecosystems. The more political term ecological wisdom refers not only to recognition of a level of health, integrity or potential damage, but also, to a decision to do nothing (more) to harm that ecosystem or its dependents. An ecosystem has a good health if it is capable of self-restoration after suffering external disturbances. This is termed resilience.

Measures of broad ecological health, like measures of the more specific principle of biodiversity, tend to be specific to an Eco region or even to an ecosystem. Measures that depend on biodiversity are valid indicators of ecological health as stability and productivity (good indicators of ecological health) are two ecological effects of biodiversity. Dependencies between species vary so much as to be difficult to express abstractly. However, there are a few universal symptoms of poor health or damage to system integrity:

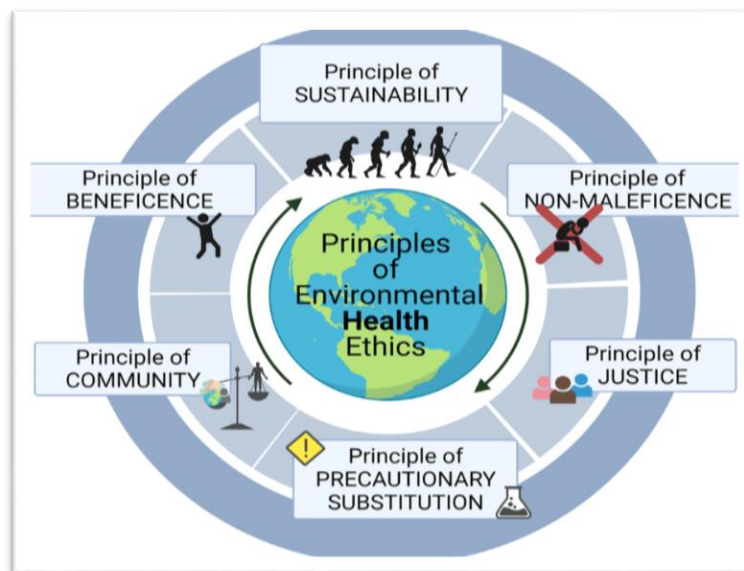
- The buildup of waste material and the proliferation of simpler life forms (bacteria, insects) that thrive on it - but no consequent population growth in those species that normally prey on them.

- A higher rate of species mortality due to disease rather than predation, climate, or food scarcity.
- The migration of whole species into or out of a region, contrary to established or historical patterns.
- The proliferation of a bioinvader or even a monoculture where previously a more biodiverse species range existed.

Some practices such as organic farming, sustainable forestry, natural landscaping, wild gardening or precision agriculture, sometimes combined into sustainable agriculture, are thought to improve or at least not to degrade ecological health, while still keeping land usable for human purposes. This is difficult to investigate as part of ecology, but is increasingly part of discourse on agricultural economics and conservation.

Ecotage is another tactic thought to be effective by some in protecting the health of ecosystems, but this is hotly disputed. In general, low confrontation and much attention to political virtues is thought to be important to maintaining ecological health, as it is far faster and simpler to destroy an ecosystem than protect on behalf of ecosystem integrity may simply lead to more rapid despoliation and loss due to competition.

Deforestation and the habitat destruction of deep-sea coral reef are two issues that prompt deep investigation of what makes for ecological health, and fuels a great many debates. The role of clear cuts, plantations, and trawler nets is often portrayed as negative in the extreme, held akin to the role of weapons on human life.



## **Principles of Ecological Health:**

There are 6 ethical principles to guide environmental health decision-making:

- Principle of sustainability
- Beneficence.
- Non-maleficence.
- Principle of Environmental Justice.
- Community Development.
- Precautionary substitution.

### ➤ **Principles of sustainability:**

Most sustainability principles can be broadly described under four themes.

- Resilience
- Desirability
- Intergenerational (temporal) equity
- Intergenerational (spatial) equity.

While the field of ecology does contribute much of what we generally know about the environmental dimension of sustainability, many subfields, hypotheses, and theoretical frameworks have influenced sustainability science, policy and assessment. In particular, ecology has emphasized the critical need for understanding how dynamic complex systems evolve resilience to, and are governed by, disturbances the spatial and temporal scales at which we discuss and seek to achieve sustainability, and the effect of systematic connectivity at multiple scales on our ability to reach sustainability goals. The importance of diverse, functioning ecosystems to many vital processes, including nutrient cycling, water purification, flood regulation, biomass production, and many others, influences the goods and services that societies require these are the resources that will most likely be needed for many future generations.

### **The Benefits of Sustainability:**

Sustainability maintains the health and bio capacity of the environment. Sustainability supports the well-being of individuals and communities. Sustainability promotes a better economy where there is little waste and pollution, fewer emissions, more jobs, and a better distribution of wealth.

The benefits of simple living are profound. Instead of the produce-and-consume way of life, people are able to focus more on the things that really support well-being such as relationships, self-improvement, meaningful pursuits and life experiences, including cultural and social experiences. Also, sustainability tends to promote healthier living, for example it promotes walking or cycling over cars. It promotes fresh local food over processed food. Sustainability promotes warm, dry homes which ward off illness. It promotes the use of harmless natural products over synthetic ones.

**Sustainabilism** advocates less stuff through sharing, renting, second-hand, recycling and reusing for example. The practice of sustainability will likely include greater self-sufficiency and DIY which both increase the earth's biocapacity. The side benefits of all this is that you will save money and therefore potentially have to work less.

### **A sustainable economy:**

Sustainable development is about improving the quality of the economy, not the size of it. The fact is we need a better economy, not a bigger one. Sustainable practices will make the economy better through reduced consumption overall and more equitable distribution of wealth. People's lives will be richer through better quality products and services.

Sustainable economies encourage distributed, local production over centralised production. The industrial paradigm of centralised, automated production is to get the maximum amount of goods and services for the least costs and thereby maximising profits and economic growth. The problem is that the price on the goods and services produced does not reflect its real cost which includes external costs that are not accounted for.

Local production has many environmental benefits over centralised, or even offshore, production including reduced emissions, pollution and waste. In a sustainable economy localised, smaller-scale production also has major societal benefits of creating jobs, boosting local economies and maintaining a high level of autonomy. Smaller, local businesses will make more use of handmade, craft production and distributed energy sources, like solar, wind and biomass.

Sustainability encourages better design as well as less production. This means that products and services will be better quality, more durable and more useful. There will be less junk and less waste. In conclusion, sustainabilism maintains the well-being of the environment so that it can support human well-being.



➤ **Beneficence:**

Beneficence can be defined as a core ethical principle that calls for performing acts that are beneficial to others, provided that the acts arise from a place of kindness and generosity. Beneficence is defined as an act of charity, mercy, and kindness with a strong connotation of doing well to others including moral obligation. All professionals have the foundational moral imperative of doing right. In the context of the professional-client relationship, the professional is obligated to, always and without exception, favor the well-being and interest of the client. In health care, beneficence is one of the fundamental ethics.

Ethics is suffused with a host of terms that direct an individual to think and act in a way that reflects morality, humanity, and thoughtfulness. Thus, ethics refers to a philosophical system that deals with aspects related to morality. As a germane principle within the broad range of ethics, beneficence is a quality that calls for one to act with generosity, love, and a genuine concern for the welfare of others. In practice, it involves working to prevent harm from befalling others. For instance, employers have moral and legal obligations to ensure safe working conditions for employees. This invariably means preventing workplace hazards, bullying, and sexual harassment, as well as ensuring prompt payment of wages.

Beneficence is more than a quality of thought, as it requires one to act with another person's best interest at heart. It is defined as doing well for others with a view toward maximizing the benefits that they will receive. Allowing someone to go ahead in a long checkout line and donating money to help someone in dire straits are examples of acts of beneficence, specifically ideal beneficence. If one helps others because they are required or obligated to do so, this is called obligatory beneficence. This often happens in clinical settings, where healthcare professionals are required to spend most of their time caring for patients.

Every human interaction is bound to contain certain levels of beneficence, without which humanity cannot really exist. Professional environments, such as the medical, business, and research fields, are profoundly impacted by the presence or absence of beneficence. In these fields, professionals have to work and offer service with no expectations of returns. Since beneficence means acting for the benefit of other people, it would be unethical for professionals to behave in a way that denies their service to the public or causes harm to others.

**Beneficence Characteristics:**

As an integral component of ethics, beneficence includes these characteristics:

- Engaging in activities that protect the rights of people and provide benefits.

For instance, speaking up about issues faced by refugees and working on their behalf by raising funds for relief are deeds that foster beneficence.

- Rescuing people in danger.

If a person is in a position to help another person without endangering themselves, it is beneficial to aid the other person.

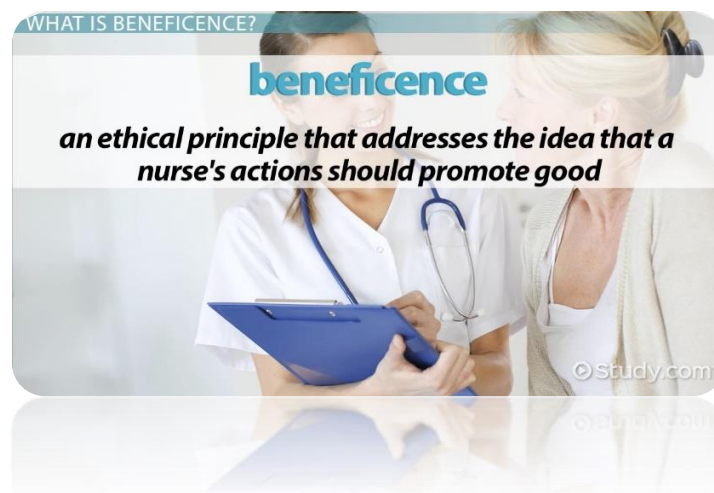
- Preventing harm from befalling others.

As a characteristic of beneficence, this includes evaluating a situation and assessing any harm that could befall a person or a community, then taking actions to avoid that harm. In many industries, both employees and employers can act in ways that do not harm the environment, though this would often mean fewer profits.

### **Beneficence Examples:**

Since beneficence is most necessary and palpable in public settings, where human encounters intersect, there are numerous examples in which one can observe its manifestation:

- Providing aid to unhoused people represents beneficence. Beneficent acts include building homes for the homeless and ensuring that unhoused people remain protected from dangers and diseases.
- Beneficence is an important asset to those working in research fields. Researchers are expected to consider the benefits that study participants might receive or the risks that they might incur. Researchers should respect study participants' privacy and guard information of a personal and confidential nature.
- Other examples of beneficence include businesses offering a portion of their profits to charity without having any ulterior motives and companies engaging in eco-friendly business practices instead of seeking the largest profits.





### ➤ **Nonmaleficence:**

A term that is generally discussed along with beneficence is nonmaleficence. As an ethical principle, nonmaleficence means avoiding harming others. It is an umbrella term that encourages one not to kill, commit crimes, or deliberately take away the pleasures and joys of another person. The Latin axiom *primum non nocere* forms the bedrock on which this notion is premised. This phrase, which literally translates to "first, do no harm," stresses how not harming another person should be of prime importance. The maxim is traced to the Greek physician Hippocrates, who took utmost care not to harm his patients. The English equivalent of this phrase, "above all, do no harm," was formulated by 17th-century English physician Thomas Sydenham.

Ethically speaking, nonmaleficence upholds that every person is entitled to fairness in all circumstances. For example, nation-states have an obligation to follow specific legal procedures when handling people who have been accused of crimes. They have an obligation to mete out punishments that are morally acceptable. This ensures fairness.

### **Nonmaleficence Characteristics:**

The idea that one must not cause harm to others means:

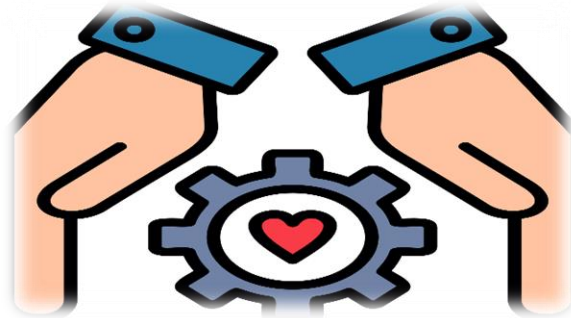
- Refraining from acts that are offensive to others.
- Avoiding acts that inflict unwanted pain on others.
- Keeping away from negligent actions, such as rash or drunk driving that could cause harm to others or generate fear among others.

### **Nonmaleficence Examples:**

Like beneficence, this principle has significance in public settings. It could be exercised in the following situations:

- Unnecessarily harming animals to meet human needs is an act that can be avoided. For example, animals are bred in factories purely for consumption. This brings unwanted pain and suffering to the creatures. Refraining from killing animals is an act of nonmaleficence. Some people also believe that humans can improve their health by switching to a plant-based diet.
- During wartime, when one country or group takes injured prisoners of war, it is possible to forgo enmity and prioritize the lives and health of those prisoners. This is an example of nonmaleficence, and the humane treatment of prisoners is among the principles enshrined in the Geneva Conventions.
- In a working environment where people from different cultures and upbringings come together, people are prone to bullying and hurting others. Since bullying of any sort is a deeply hurtful offense, it is important that one recognize the need to be inclusive and tolerant toward other cultures and individual differences. This promotes nonmaleficence.

- In hospitals, vaccinating children can cause pain; however, vaccinations provide protection against severe infectious diseases. Thus, the benefits outweigh the minor harm inflicted.



➤ **Principle of Environmental Justice:**

The principles of environmental justice focus on the core beliefs and structures around protecting the environment and giving people control over what happens to their communities.

**The Definition of Environmental Justice:** Environmental justice is the concept that everyone should have a say in how the environment is managed and protects their communities. The idea of environmental justice grew out of the consistent and widespread damage caused by the decisions of a few people that affected large communities. Historically, minority groups and low socioeconomic groups have largely been kept out of the decision-making process, leading to environmental damage that threatens their communities. To combat this, many of those communities have banded together to make decisions about the environment and their living spaces. Their efforts have had a range of environmental justice effects.

The most effective method of cultivating change in environmental justice has been to take legal action against the entities that are causing the damage. For example, companies that pollute ecological resources and communities may face legal pressure from both governments and community groups to change their operations. These actions have changed regulations and forced companies to change their methods. Many of these groups are beginning to focus on proactive measures to prevent future issues.

**Principles of Environmental Justice**

- Increase ecological protection and safety within disadvantaged communities.
- Expand cultural awareness and address potential language barriers.
- Promote environmental education.

- Provide additional opportunities for everyone to participate in the decision-making process, regardless of race or socioeconomic status.

There have been major strides toward creating environmental justice across the country. Government agencies are seeing the importance of taking action to protect communities and stopping the widespread destruction of the environment from profit-driven corporations.



### **Environmental Justice Law Seeks to Protect Disadvantaged Communities:**

Environmental justice law is a set of laws enacted to protect the environment and ensure that every group has representation. In recent decades, legal action has changed how states protect the rights of people, involving them in these decisions. In many cases, it is the direct result of individuals or groups taking legal action against larger entities.

By creating widespread social change, their actions have led to increased regulations by state and federal government agencies to keep companies and government representatives from alienating specific groups from community development projects. This is in everyone's best interest, including the companies and decision-makers responsible for much of the environmental injustice.

### **Environmental Injustices in Our Country: A Violation of Certain Principles.**

A leading example of environmental injustice is the Flint, Michigan, case. A company used faulty pipes to create water and sewer systems throughout the city. As those pipes broke down prematurely, they contaminated much of the drinking water with lead. The residents of Flint had struggled to hold that company accountable because of being alienated from legal and government processes. Many people have stood up for the residents of Flint, including well-known celebrities and national legal associations. Slowly, they are cultivating change that will push the government of Flint to take action and fix the problem, while including the residents of the city in a more inclusive way.

### **Compensation in an Environmental Justice Case**

The types of compensation that come from an environmental injustice case vary based on the circumstances of what happened, who is responsible, and who is involved in the case. Your environmental justice lawyer can give you some additional guidance on what you can expect in

terms of compensation (if that is your end goal). They can look at what compensation occurred in similar, prior cases to use as a precedent.

### **Know Your Environmental Rights**

When it comes to environmental injustice and environmental racism, you have the right to enjoy the same access and benefits as everyone else. If another party violates those rights, you can take legal action. The actual type of legal action and next steps vary based on the specifics of your case and your overall goals.

### **Contact an Environmental Justice Lawyer**

If you have any questions about the principles of environmental justice and how it impacts your potential environmental injustice case then contact Environmental lawyer.

#### **➤ Community Development:**

Community development involves the principles of sustainable development, empowerment, inclusivity, social justice, human rights, participative democracy, and equality. These community-led programmes led by specific communities aim to address the challenges and gaps oppressing the community members. From the selection of issues to implementation and execution, the community members sit together and decide what steps are to be taken.

These programmes are necessary to ensure fairness and equality within society. Furthermore, these programmes can be used to uplift other members of society. One should note that when talking about communities in community development, it may not be limited to a particular geographical area. The term community refers to people sharing the same interest, identities, heritage, or culture.



### **Principles of Community Development Programme.**

- **Community Participation**

Every individual in the community is integral to the development and process of decision-making. Community development works on the principle that everyone should take equal responsibility

and participate in development projects. Be it evaluation, participation, provision, or direction, members of all levels should make a valuable contribution.

- **Ownership & Involvement**

Every member should take complete responsibility and accountability for their work. The staff members, volunteers, and Centre participants should collaborate and cooperate effectively to reach the end goals.

- **Empowerment**

The act of respecting, enhancing and encouraging people to meet their needs and aspirations in a more informed manner. Empowering other community members means being respectful and non-judgemental and building a relationship where other community members feel comfortable and valued. If community members are empowered, they tend to share their powers and use them for the betterment of society.

- **Equal Access and Opportunities**

The discipline of community development aims at enhancing equal participation by the members. This further increases the need to provide equal opportunities to the members and ensure that each member is aligned with the goals.

- **Networking**

The basis of community development projects lies in the idea of networking and nurturing relationships with people from industries. Networking can help build connections with other people and groups who might be facing similar challenges. This helps pave the way for different communities to work together and find effective solutions to the prevailing challenges in society. Networking can also help bridge the knowledge gap as communities come together to share existing knowledge, experiences, and resources.

- **Rethinking**

Rethinking aims at reviewing or assessing the situation again to bring changes in the desired outcome. It may involve reevaluating the situation from a different perspective and implementing changes that may be beneficial to the community.

- **Advocacy**

Community advocacy refers to providing support to others and enabling them to be active citizens. Through advocacy, communities will be well-versed with their societal entitlements and human rights. It will allow the community members to get attention from the top-level professionals and have their voices heard in public.

- **Learning**

Learning is a lifelong and never-ending process. The pursuit of knowledge and learning new skills is not only beneficial for personal use but can impact an individual's professional life as well. Community development works on the principles of learning new skills and gaining knowledge actively. When community members gain new knowledge or skills, they may be able to bring more effective campaigns and results.

### **Examples of Community Development Project**

The main activities of community development programme focuses on providing a better environment for the community members. Here are some examples of community development programmes:

- Providing hostel accommodation or housing facilities to homeless individuals or people who need help.
- Sponsoring libraries and taking steps to improve the educational facilities within the locality.
- Promoting parks and ensuring the cleanliness of the open air spaces to ensure everyone's well-being.
- Providing healthcare facilities at affordable prices or for free so that every individual gets equal access.
- Distributing free meals to children or opening branches of affordable canteens to help the weaker socio-economic section of society.

### **Why is a Community Development Project Important?**

- Achieve Long-Term Development
- Meet the Needs of the Community
- Foundation for Economic Development
- Improves Access to Resources
- Addressing the Root Cause of Issues
- Empowers Citizens to Exercise their Rights
- Provides a Sense of Inclusion

➤ **Precautionary substitution:**

The precautionary principle enables decision-makers to adopt precautionary measures when scientific evidence about an environmental or human health hazard is uncertain and the stakes are high. It first emerged during the 1970s and has since been enshrined in a number of international treaties on the environment, in the Treaty on the Functioning of the European Union and the national legislation of certain Member States. The precautionary principle divides opinions. To some, it is unscientific and an obstacle to progress. To others, it is an approach that protects human health and the environment. Different stakeholders, experts and jurisdictions apply different definitions of the principle, mainly depending on the degree of scientific uncertainty required for the authorities to take action. Although most experts agree that the precautionary principle does not call for specific measures (such as a ban or reversal of the burden of proof), opinions are divided on the method for determining when to apply precautionary measures. The application of the precautionary principle presents many opportunities as well as challenges. The precautionary principle is closely linked to governance. This has three aspects: risk governance (risk assessment, management and communication), science-policy interfaces and the link between precaution and innovation.

**What is an example of precautionary principle?**

Risk management decisions in water regulation reflect precautionary principles. When the estimate of risk for contaminants in water are unknown, regulatory limits tend toward greater-protection that is, they allow lower levels of the contaminant.

**Decisions that Protect the Public from Harm**

The precautionary principle encourages and allows decisions makers to make decisions that protect the public and the environment from harm. The precautionary principle also states that the burden of proof that a product or action is safe for people and for the environment should fall to those who are promoting its use. It should not be up to the people who are exposed to the product or action to prove that it is unsafe or harmful to health.

**The Precautionary Principle in Real Life**

Many chemicals last a long time in the environment, once they are released, and may be difficult and expensive to clean up. Therefore, the Precautionary Principle has been applied in a number of important decisions, to protect the environment and health.

**For example:**

**Water:** Risk management decisions in water regulation reflect precautionary principles. When the estimate of risk for contaminants in water are unknown, regulatory limits tend toward greater-protection – that is, they allow lower levels of the contaminant.

**Pesticide Use:** The Los Angeles Unified School District (LAUSD) adopted an integrated pest management practice in the schools, drastically reducing the use of pesticides in the schools.

**What are the 4 components of the precautionary principle?**

The statement went on to list four central components of the principle:

- Taking preventive action in the face of uncertainty;
- Shifting the burden of proof to the proponents of an activity;
- Exploring a wide range of alternatives to possibly harmful actions
- Increasing public participation in decision making.



### **The Precautionary Principle**

**"Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."**

**Earth Summit 2002, Principle 15.**