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ABSTRACT

TO WHO OR WHAT DO WE OWE SUSTAINABLE DEVELOPMENT? A SEARCH FOR AN ETHICAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

**by
Mia Söderlund**

This thesis focuses on the ethical dimension of sustainable development as described in the Bruntland report. According to this report, we do have certain moral obligations to future generations. This thesis asks whether traditional moral philosophy, such as utilitarian and contractarian theories, can justify moral obligations to future generations, and if they can serve as ethical frameworks for sustainable development.

The basic idea with sustainable development is to create a balance between society, the environment and the economy. If the environment is ascribed instrumental value, which is the case with traditional moral philosophy then there is no balance, because its value are based on whatever value the society and the economy is willing to give the environment.

I will argue that the proper ethical framework for sustainable development is an ethical framework, based on Aldo Leopold's land ethic. This framework gives the environment a value on its own regardless to its usefulness to humans, which makes it possible to justify sustainable development as a balance between the economy, society and, the environment.

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A SEARCH FOR AN ETHICAL FRAMEWORK
FOR SUSTAINABLE DEVELOPMENT**

by
Mia Söderlund

**A Thesis
Submitted to the Faculty of
New Jersey Institute of Technology
in Partial Fulfillment of the Requirements for the Degree of
Master of Science in Environmental Policy Studies**

Department of Humanities and Social Science

January 2000

APPROVAL PAGE

**TO WHO OR WHAT DO WE OWE SUSTAINABLE DEVELOPMENT?
A SEARCH FOR AN ETHICAL FRAMEWORK FOR
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Mia Söderlund, Ekologisk Landskapsplanering: En Fallstudie på Strömsunds skogsförvaltning, SCA Forest & Timber AB. Examensarbete vid Institutionen för Biologi, Miljö och Geovetenskap. Umeå Universitet. January 1999. (Masters degree thesis in Swedish)

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ACKNOWLEDGEMENT

The author wishes to express her sincere gratitude to her thesis advisor, Dr. Eric Katz, for his guidance and moral support throughout this research. Above all, my gratitude for introducing me to the field of environmental ethics.

Special thanks to the members of the thesis committee; Dr. John Opie for encouraging me to enroll in the Environmental Policy Studies program at NJIT, and Dr. David Rothenberg for taking me on as editorial assistant at *Terra Nova: Nature & Culture*.

The author is grateful to the Department of Humanities and Social Sciences at NJIT, for providing funding to this research. Dr. Robert Friedman and Dr. Norbet Elliot have always showed great patience and interest in all my questions.

A wholehearted thanks to Marta Ulveus, associated editor at *Terra Nova: Nature & Culture*, for improving the final draft and giving lots of support during my whole time working on this thesis.

Finally, a special thanks to Jamie, who dragged me to the U.S., without his support and love this project would not have been possible.

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CHAPTER 1

INTRODUCTION

“One need not be a philosopher to be concerned for ethics; however, one must be concerned to submit one’s moral values and judgments to rigorous intellectual scrutiny.”

J. Ronald Engel, *Ethics of Environment & Development*, 1993

1.1 Overview

We are dependent on our surrounding environment to sustain humanity on earth. This is ancient knowledge that all societies and cultures throughout history have known. Farmers have always known that they must save their seeds, plant them, and care for their fields in order to keep their land productive. Theodore Roosevelt’s progressive conservation movement, led by Gifford Pinchot, the first director of the U.S. Forest Service, was based on the same knowledge. Nearly a century ago Pinchot introduced a policy based on conservation and equitable distribution of public resources—and thereby assured a “sustainable yield” of timber from national forests that would serve future generations of Americans.¹

People have always affected their surrounding environment, even though they might not have been aware to what extent. The first human societies, which were hunters and gatherers, affected their environment even though they were nomads and few in number. Approximately 10,000 years ago, the hunter and gatherer societies developed

agrarian societies. At that time, the world population was less than one thousandth of what it is today, about 5 million compared to today's 6 billion. In today's highly technological civilization, each individual uses 150 times more energy than an individual in the hunter and gatherer societies.² With a thousand times more people using 150 times more energy, each and every one of us puts a large burden on the earth's resources, and our effects have never been greater. The rapid increase in human population, relative to resources and environmental resilience, makes it difficult to continue the upward spiral of development and economic growth.

However, it would be impossible for modern civilizations to return to a hunter-gatherer society. Modern civilizations have become too complex, the means we have devised for our survival and comfort too intricate, and our manipulation of nature too labyrinthine to extricate ourselves from a lifestyle which is totally dependent on science and technology.

Somehow we must adopt policies regarding population and development that are consistent with policies to ensure our survival, and which take into account the capacity of the environment so that it can renew itself. Fortunately, there is a growing concern among people today about promoting policies that deal with the distribution of natural resources, pollution, population growth, development, and the state of the earth. Perhaps the best example is the Bruntland report, named after its chairwoman, Gro Harlem Bruntland, former prime minister of Norway.³ In 1987 the Bruntland report thrust the concept of sustainable development into the mainstream of political and economic discourse around the world. "Humanity has the ability to make development

sustainable—to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.”⁴

Sustainable development is, in its broader sense, a plea for posterity, and as such, it is not a new idea. I have already given two examples of posterity arguments—the farmer’s knowledge and Pinchot’s forest conservation. However, the specific concept of sustainable development is a relatively new idea. Since the mid 1980s, there has been a lively discussion both about definitions of sustainable development and about how to make sustainable development work in practice. However, the description put forward by the Brundtland report is still the predominant one, since it is simple and many different groups can be united under its umbrella.

Many books and articles have been written over the past ten years about sustainable development. Most of this literature focuses on the social, political, and economic effects of sustainable development. A series of conferences has taken place on the theme of sustainable development, and numerous environmental organizations, industries, and governments all over the world are working on promoting sustainable development.

It seems to me that there is a consensus that we all have to change and move in a more sustainable direction of economic growth and development. We have to face the effects our actions have on the natural environment. And we have to change our behavior for the future. However, the precise nature of the change and what this change implies is controversial. Some argue that the path to sustainable development is through the development of new technology and science, whereas others believe that we have to take a “giant step” which reaches deep to modify both our culture and our behavior.⁵

It is my position in this thesis that sustainable development requires a fundamental change in our beliefs and values. I believe a profound change in our behavior is necessary to solve the problems of climate change, population growth, pollution, erosion, poverty, and global inequality. In order to change behavior we have to change our beliefs and values.

Perhaps people are slowly but steadily beginning to assume the moral responsibility for protecting the environment and to accept the limitations that such a responsibility imposes on our habits of consumption and use of resources. Perhaps sustainable development is a response to the growing awareness of the effects that human activities have on the earth—a change of beliefs and values.

Philosopher Nicolás Sosa discusses three necessary steps, that we all have to take in order to change our behavior effectively.⁶ First, the public must be informed about the natural environment and the crisis it is now undergoing. Second, we need to know what sort of world lies ahead and ask ourselves: What sort of world do we want to strive to realize? Third, we need to revise our way of living. If sustainable development is what our human civilization should aim for, then we need to review and revise our concepts of needs and progress and the nature of our relationship towards the natural environment.

I believe the key issue here is to acknowledge the effects that our actions have on the environment, and this implies a moral consideration of the earth. I also believe that it is important that we not to see ourselves as apart from the earth, but as part of it.

Philosopher Stephen Toulmin writes: “Instead of viewing the world of nature as onlookers from outside, we now have to understand how our own human life and activities operate

as elements within the world of nature. So we must develop a more coordinated view of the world, embracing both the world of nature and the world of humanity.”⁷

By realizing the effects of our actions and acknowledging our moral obligation to the earth, we would want to choose a more sustainable future—not only for our own survival but also for the earth itself.

I believe that a knowledge of ethics is essential for people to choose a sustainable future. Ethics focuses on discovering the basic principles upon which we should base our judgments about the moral rightness or wrongness of behavior. Our present political and economic arrangements are retained only because they are perceived to be legitimate, and their legitimacy ultimately rests on the perception that they are ethically justified.

Ethics can help clarify the values in a policy such as sustainable development. Many public policy statements on environmental issues are laden with moral concepts, for example “equity”, “respect for nature”, and “ecological integrity.” All are important for the message embedded in the policy. However, these terms are often used in a vague and even contradictory fashion. Therefore, ethics is essential to clarify the values of these concepts, and ethics may help to resolve some of the conflicts in value that often arise between conservation and development projects. Furthermore, moral ideals have the power to motivate people to care for the world around them. Ethics gives a voice to the moral conscience in individuals, provides a language that expresses their moral intuitions, and empowers them to share their feelings with others.

This thesis discusses the importance of an ethical understanding of sustainable development. It is a search for an ethical framework for sustainable development.

1.2 Objective and Outline of the Thesis

This thesis focuses on the ethical dimensions of sustainable development. I will analyze the ethical framework of sustainable development as defined by the Bruntland report and discuss the following four questions:

- a) What does sustainable development mean?
- b) Do we have moral obligations to future generations to promote sustainable development?
- c) Can traditional moral philosophies, such as utilitarian and contractarian theory, justify sustainable development?
- d) What is the proper ethical framework for sustainable development?

In chapter two, I will discuss the history of sustainable development and different approaches to or interpretations of sustainable development. The history of sustainable development can be traced far back in the human history. However, I will focus on events that have occurred during the last thirty years, which have contributed to the development and promotion of sustainable development as a broad environmental policy.

Today there are many interpretations of sustainable development, that confuse our language and thinking. It is therefore important to find a consensus on the meaning of sustainable development. I have divided the interpretations of sustainable development into three different approaches: weak, strong and ideal sustainable development. Weak sustainable development approaches sustainable development mainly in terms of a free-market economy. Strong sustainable development approaches sustainable development

through social equity. Finally, ideal sustainable development approaches sustainable development from an environmental point of view.

In chapter three, I will question whether traditional moral philosophies can justify sustainable development. The concept of sustainable development, as described in the Bruntland report, holds that we do have certain moral obligations to future generations. I will look into how utilitarian and contractarian theories deal with this obligation.

In the final chapter, I will present a holistic outlook on sustainable development—a sustainable development that looks beyond today’s anthropocentric framework. I believe that sustainable development has the potential to be a “giant step” for the progress of our civilization. While sustainable development is global in its vision, at the same time it works at various civic and geographic levels and attempts to bring together many different serious social and environmental problems. However, we need to connect the concept of sustainable development to a holistic ethical framework in order to morally justify the changes that are necessary to make the future more sustainable.

1.3 Terminology

In this thesis, many philosophical terms are used, and it is important that the reader clearly understand how they are being used here.

In general conversation, ethics and morality are often used interchangeably. However, morality refers to judgments and actions regarding what is right or good, and ethics refers to the reasoning such judgments and actions require.⁸ Therefore, the term ethics is frequently considered to be equivalent to moral philosophy, which is the case in

this thesis. I use the term “moral obligation” to refer to a voluntary, mutually acknowledged commitment to, or between, identifiable persons.⁹

Traditional ethical theory has hardly, or at least not specifically, dealt with the relationship between humans and the natural world. Traditional ethical theories have searched for reasons to justify and ground moral relationships between people and societies. However, in the 1970s, a community of philosophers undertook the task of a fundamental ethical reconstruction and formed a new discipline within applied ethics—environmental ethics.¹⁰

Environmental ethics examines the moral basis of environmental responsibility. The goal of environmental ethics is not to convince people that we should be concerned about the environment. Instead, environmental ethics focuses on the moral foundation of environmental responsibility and how far this responsibility extends. There are three distinct theories of moral responsibility to the environment. Although each supports environmental responsibility, their approaches are radically different.

The first of these theories is anthropocentric, or human-centered. Environmental anthropocentrism is the view that all environmental responsibility is derived from human interests alone.¹¹ The assumption here is that only human beings are morally significant and have a direct moral standing. Since the environment is crucial to human well-being and survival, we have an indirect duty towards the environment. In other words, the natural environment has an instrumental value to humans.

A second approach to environmental responsibility is an extension of the animal rights view.¹² According to this view, environmental responsibility derives from the

interest of all morally significant beings, which includes humans and at least some animals. Like anthropocentrism, though, environmental obligation is still indirect.

The third approach to environmental responsibility, ecocentrism, maintains that the environment deserves direct moral consideration and not one that is merely derived from human (and/or animal) interests.¹³ The environment has inherent worth and is therefore by itself on a moral par with humans.

¹ In Gifford Pinchot's resource conservation ethic, we see the origin of modern sustainable development. The goal of the proper use of resources, according to the resource conservation ethic, is for the greatest good of the greatest number of people for the longest time. The resource conservation ethic is based on two principles. Its first principle is that resources should be fairly distributed among present users and consumers as well as future consumers. The second principle of the resource conservation ethic is that resources should be used efficiently. Roderick Nash, *Wilderness and American Mind* (New Haven: Yale University Press, 1982); and Bryan G. Norton, *Toward Unity Among Environmentalists* (New York: Oxford University Press, 1991).

² Sverker Sörlin, *Naturkontraktet: Om naturumgängets idéhistoria* (Stockholm: Carlsson, 1991), p. 31.

³ World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987).

⁴ *Ibid.*, p. 8.

⁵ Gro Harlem Brundtland said at a 1988 United Nations conference in Toronto that "The time has come to take a giant step in the progress of civilization." Nicolás M. Sosa, "The Ethics of Dialogue and the Environment," in *Earth Summit Ethics: Toward a Reconstructive Postmodern Philosophy of Environmental Education*, J. Baird Callicott and Fernando J.R. da Rocha, eds. (Albany: State University of New York Press, 1996), p. 48–9.

⁶ *Ibid.*, p. 49.

⁷ Stephen Toulmin, *The Return to Cosmology: Postmodern Science and the Theology of Nature* (Berkeley: University of California Press, 1982), 255–6.

⁸ William K. Frankena, *Ethics* (Engelwood: Prentice Hall, 1973), p. 4.

⁹ Ernest Partridge, *Responsibilities to Future Generations* (Buffalo: Prometheus Books, 1980), p. 5.

¹⁰ Publications on ethics and the environment are now commonplace in journals such as *Environmental Ethics* and *Environmental Values*. The editor of *Environmental Ethics*, Eugene C. Hargrove, has written a book about the roots of environmental ideals in the Western tradition. Both the journals and Hargrove's book serve as a good introduction to the literature and discussion of environmental ethics. Eugene C. Hargrove, *Foundations of Environmental Ethics* (Denton: Environmental Ethics Books, 1989).

¹¹ Environmentalism based on arguments of anthropocentric environmental ethics has concerns about the welfare of the natural environment from a human point of view. This welfare is often fueled by concern for future generations and/or economic self-interests and/or spiritual values. Anthropocentrism is the predominant ethical framework used for most public policy, including sustainable development and the Endangered Species Act. Utilitarianism and contractarian theory, which will be discussed in chapter three, are examples of philosophies that embrace an anthropocentric ethical framework.

¹² The animal rights and animal liberation movements seek to extend moral concern to the well-being of nonhumans. The two most influential philosophers in these animal movements are Peter Singer and Tom Regan. Singer argues for a utilitarian philosophy and wants to extend utilitarianism to include animals that can suffer or feel pain, "sentient creatures." Regan argues that all creatures that can experience the "subject of life" have an inherent value and should therefore have moral rights. However, according to Gary E. Varner, there are restrictions to Regan's "subject of life," since only individuals that are capable of having "desires" are given moral rights. Peter Singer, *Animal Liberation*, (New York: A New York Review Book, distributed by Random House, 1975); Tom Regan, "The Case for Animal Rights," in Peter Singer, ed., *In Defense of Animals* (Oxford: Basil Blackwell Inc, 1985) p. 13–26; Gary E. Varner, "The Prospects for Consensus and Convergence in Animal Rights Debate," in Donald VanDeVeer and Christine Pierce, eds., *The Environmental Ethics & Policy Book* (Belmont: Wadsworth Publishing Company, 1998), p. 123–9.

¹³ Ecocentrism, sometimes called holism, has the view that natural systems, in and of themselves, are valuable as systems which are greater than the individual parts. Ecocentrism can be further divided into two groups. One group of philosophers views the biosphere as an interconnected whole, which has a moral standing on its own, and, as such, the biosphere can be viewed as an "organism." James E. Lovelock's "Gaia Hypothesis" and Arne Naess's "Deep Ecology" are examples of this. The other group of philosophers views the "ecosystemic community" as the source of environmental ethics. In chapter four, I will discuss Aldo Leopold, one of the pioneers who introduced the "community" as an ethical framework. For further reading and understanding of ecocentrism see: James E. Lovelock, *Gaia, a New Look at Life on Earth*, (Oxford: Oxford University Press, 1979); Arne Naess, *Ecology, Community and Lifestyle: Outline of an*

Ecosophy,” Trans. David Rothenberg (New York: Cambridge University Press, 1989); Aldo Leopold, *A Sand Country Almanac, and Sketches Here and There* (New York: Oxford University Press, 1949); and Holmes Rolston III, *Environmental Ethics: Duties to and Values in The Natural World* (Philadelphia, Temple University Press, 1988).

CHAPTER 2

SUSTAINABLE DEVELOPMENT: HISTORY AND INTERPRETATIONS

And how would you like your sustainability, Sir? Weak or strong?

Oh, strong please, but not absurdly strong.

And how about you Sir? Weak or strong?

Er, I'll take mine weak please, but not pathetically weak.

How many drops of sustainability would you like in it, one or two?

Ah, that all depends.

Depends on what Sir?

Oh, I'm afraid I haven't worked that out yet.

Wilfred Beckerman, *Environmental Values*, 1995.

In 1980 the concept of sustainable development first appeared in the *World Conservation Strategy* of the International Union for Conservation of Nature and Natural Resources.¹

Ever since the term sustainable development was coined, there has been a lively discussion both about definitions and about how to make sustainable development work in practice. It is important to find as precise a definition as possible for sustainable development so that a set of measurable criteria can be specified, which can be used to create concrete development programs to implement sustainable development throughout the world.

In this chapter I will view sustainable development as development that is consistent with social and ecological realities, and I will discuss three different approaches to sustainable development. However, first I will discuss the history of sustainable

development. I find it vital to discuss the meaning of sustainable development in a historical context, because I see sustainable development as an evolutionary process.

You have to understand where you are coming from in order to understand where you are and where you are heading—a cliché, but I believe this to be true in the case of sustainable development.

2.1 History

The history of sustainable development can be traced back to the beginning of the 19th century, when our knowledge and understanding of our surrounding environment accelerated rapidly.² Table 1 lists some of the major scientific and social events that have occurred during the last two hundred years, which have contributed to our understanding of the concept of sustainable development. The list is far from complete, since it focuses on major events in the western world, predominantly in the U.S. However, the list does serve the purpose of exemplifying the wide understanding of environmental issues during the last centuries.

I have chosen to discuss only some of the more recent events listed in table 1. In particular, I will discuss several key international environmental conferences held during the last 30 years, as well as how sustainable development emerged as an international environmental policy.

The global concern for the environment started in the 1960s. At that time the industrialized world saw extraordinary advances in science and technology, and the expansion and globalization of information, communication and transportation. Before the environmental movement became international it was national, and national

environmental concern first appeared in countries such as the U.S., Canada, Germany, the Netherlands, and Scandinavia.

In the U.S., the starting point of the modern environmental movement was perhaps the publication of Rachel Carson's *Silent Spring* in 1962.³ Rachel Carson was a marine biologist who had a deep understanding of nature's complex ecology and how pesticides affect species and their ecosystems. Carson's ideas became the foundation of the environmental movement and influenced environmental regulation not only in the U.S. but all around the world.⁴

In particular, Carson influenced many non-governmental organizations (NGOs). These environmental NGOs have played a crucial role in advocating for the environment, increasing people's awareness of the causes of environmental problems, as well as putting pressure on politicians and industry to adopt environmental policies that deal with these problems.

One aspect of environmental problems that these NGOs have stressed is that many environmental problems are global in nature, such as pollution and the depletion of the ozone layer. At the end of the 1960s, many governments realized that they would benefit from cooperation between nations on environmental issues. For international cooperation to be effective, some formal commitment is necessary. In international affairs, institutionalization is usually based on a treaty, or less formal written agreements or programs of action.

The United Nations (UN) has played a major role in promoting such international environmental programs and agreements since the 1960s. One of the first UN environmental conferences was held in Stockholm, Sweden, in June 1972. In the same

year, the Club of Rome presented some predicted scenarios concerning the environment, pollution and population. Both the result of the Club of Rome's study as well as the outcome of the Stockholm conference expressed the need for a global environmental policy that would be able to deal with a wide range of social and environmental problems.

The broad policy that emerged was sustainable development. The UN-led World Commission on Environment and Development presented a report in 1987, *Our Common Future*, which was named the Bruntland report after the commission's chair Gro Harlem Bruntland, former prime minister of Norway. This report is probably one of the most significant documents in the field of sustainable development, since it defined sustainable development, or more accurately described sustainable development. Sustainable development was further acknowledged at the Earth Summit in Rio Janeiro, Brazil, in June 1992, marking the twentieth anniversary of the Stockholm conference. By then the concept of sustainable development was here to stay.

2.1.2 The Stockholm Conference on the Human Environment

The United Nations Conference on the Human Environment, which was held in Stockholm, Sweden, in June 1972, marked a turning point in international relations concerning environmental issues. It legitimized environmental policy as a universal concern among nations and placed environmental issues on their national agendas.

The conference was remarkable in that it gave respectful attention to developing countries and NGOs.⁵ The environmental issues in developing countries (sometimes referred to as the South) were far different from the environmental issues debated in developed countries (referred to as the North). In the South, the main issues were poverty,

hunger, disease and survival, whereas in the North the environmental discussion focused on limiting growth, pollution, and on the protection of natural resources.⁶

The formal outcome of the Stockholm conference was the Declaration on the Human Environment, the Declaration of Principles, Recommendations for Action, and the Resolution on Institutional and Financial Arrangements.⁷ Another result of the Stockholm conference was the establishment of the United Nations Environment Programme (UNEP), a UN agency which would serve as a focal point for environmental issues within the UN.⁸

The legacy of the Stockholm conference was an enlarged and reinforced concept of national environmental responsibility that has influenced international political, legal, and organizational relationships ever since.⁹ For example, the Stockholm conference became a model for other international environmental conferences. These conferences have played a major role in developing and launching international environmental policy. The positive effects of these conferences include stimulating discussions and awareness of global environmental issues and obtaining international agreements, such as the Stockholm Declaration of Principles, the Rio Declaration, and the Convention on Biodiversity. However, there are negative effects as well. These conferences have a tendency to be rhetorical and compromise environmental issues to a point of inaction.

According to environmental policy analyst Lynton Caldwell the Stockholm conference started a “new environmental paradigm,” a large social transition which views the earth as a domain of life, or biosphere, in which humans are temporary residents.¹⁰ The old view, which is still evident, saw the earth as a storehouse of resources to be used freely and developed by humans. Paradigm shifts do not occur overnight, and I believe

sustainable development should be viewed as a policy that tries to make the transition from the old to the new view.

2.1.1 The Limits of Growth

In the postwar era, a number of neo-Malthusians, including Garrett Hardin and Paul Ehrlich, raised alarm over increasing human populations and their economic activities, and the potential harm that such growth could have on ecological systems and human societies.¹¹

These concerns were discussed further by the Club of Rome, a loose association of economists, scientists, educators, and industrialists from twenty-five countries. In 1972, the club presented a report entitled *The Limits of Growth*, which generated enormous interest and controversy around the world.¹² The report presented computer-generated projections of demographic, industrial, social, and ecological trends. Its conclusion was that if the trends in human population, pollution, food production, and resource depletion were to continue unchanged, then the limits of growth would be reached within the next hundred years. However, the report also concluded that it was possible to alter these trends if people were willing to change.

In light of these alarming trends, an awareness grew of a need for a broad environmental policy, such as sustainable development, which would subsequently alter these trends. The issues raised by the Club of Rome, such as population, pollution, food production, and natural resources, became key issues in the Brundtland report.

2.1.3 The Bruntland Report

The Bruntland report is most well-known for its classical description of sustainable development. “Humanity has the ability to make development sustainable—to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.”¹³

The Bruntland report suggested that the predicted catastrophe faced by the environment that was presented by the Club of Rome could be altered through sustainable development, within the framework of equity. According to the Bruntland report, inequity and power are the planet’s main environmental problems as well as the main development problems—too much power in the North creates inequity towards the South.

There are two principles that underpin the Bruntland report.¹⁴ First, there is an overriding priority of achieving basic human needs for all humankind. In effect, this principle would uplift the living conditions of people in many developing countries. Second, there are limits to development, which are mainly seen as technical, cultural and social. This does not necessarily imply limits to economic growth. The vagueness of what limits to development really means has opened up the possibility of many different interpretations of the message of the Bruntland report, which I will discuss later in this chapter.

The Bruntland report presented seven major proposals for a strategy for sustainable development.¹⁵ The strategy sought:

- 1) to revive growth;
- 2) to change the quality of that growth;
- 3) to meet basic needs for employment, food, energy, water and sanitation;

- 4) to ensure a sustainable population base;
- 5) to conserve and enhance the natural resource base;
- 6) to refocus technology; and
- 7) to merge environmental issues into economic decision making by transforming attitudes and practices.

The proposed sustainable development is a long-term strategy, extending to “future generations,” and the Bruntland report recommended ways of achieving this through international cooperation and institutional reform.¹⁶

The fact that the Bruntland report came directly out of the General Assembly of the UN gave this report important political significance compared to other reports on social and environmental issues. The UN General Assembly asked the creators of the Bruntland report for a new report on the progress of sustainable development after five years. This report was the outcome of the United Nations Conference on Environment and Development (UNCED) which was held in Rio de Janeiro, Brazil, in June 1992, also known as the Earth Summit.¹⁷

2.1.4 The Earth Summit

Sustainable development received attention from governments all over the world at the Earth Summit in Rio de Janeiro, Brazil, June 1992.

The Earth Summit was built upon the work that was done at the Stockholm conference. However, the Earth Summit was a much larger conference than the Stockholm conference of June 1972. At the Earth Summit 178 national governments were represented in the deliberations, and 110 heads of states and 2,000 NGOs participated.¹⁸

Furthermore, 8,000 journalists covered the conference closely, which helped spread awareness of environmental issues, particularly of sustainable development to the public.

The principal official agreements achieved at the conference were the Rio Declaration on Environment and Development, a statement on Forest Principles, and Agenda 21.¹⁹ The Rio Declaration was a statement of twenty-seven principles regarding the rights and responsibilities of nations towards the environment. The Forest Principles were adopted separately since there was not sufficient agreement for a binding treaty on forests. Agenda 21 was an action plan to guide the governments in developing environmental policies for the twenty-first century. The conference was also the occasion of the signing of two treaties that were significant for environmental policy—the Framework Convention on Climate Change and the Convention on Biodiversity.²⁰

The Rio conference also created the UN Commission on Sustainable Development, which was established by the UN General Assembly in December 1992 to monitor and report on progress by governments and international organizations towards the goal of Agenda 21.²¹

What became evident at the Earth Summit was that during the five years since the Brundtland report, the sustainable development agenda had turned “green” and against development. This was mainly due to the debate on sustainable development in the North, driven by NGOs, such as the Friends of the Earth and Greenpeace.²² The “green” approach of the North was widely disliked in the South, and the North-South conflict increased, which created a deadlock in the sustainable development debate, and prevented further agreements from being reached at the Earth Summit.

Since Rio, progress has been made, and the North-South conflict was somewhat resolved at yet another conference, Earth Summit + 5, in New York, June 1997. This conference reconfirmed the political commitment to sustainable development, an action-oriented policy that attempts to deal with both social and environmental problems.²³ It seems to me that there is a consensus today that we all have to change and move in a more sustainable direction of economic growth and development. We have to face the effects our actions have on the natural environment, and we have to change our behavior for the future. Some argue that the path to sustainable development goes through a free-market economy, or the adoption of new science and technology, whereas others believe that we have to take a “giant step” which reaches deep into both our culture and our behavior. In the next section, I will discuss some of these different paths or approaches to sustainable development.

2.2 Approaches to the Concept of Sustainable Development

The broad concept of sustainable development has given rise to ambiguity and lack of consistency in the use of the term. There is no general agreement on exactly what sustainable development means. Even if one adopts the Brundtland definition or description, which predominates, one immediately runs into questions of what “need” means and how far into the future our obligation stretches, which I will discuss in the next chapter.

However, this lack of clarification is not without its advantages. It has, for example, allowed groups with different and often conflicting interests to reach some common ground upon which concrete policies have been developed, such as the Rio

Declaration.²⁴ However, some have argued that the ambiguity of the concept severely diminishes its usefulness. For instance, many environmentalists claim that sustainable development is so vague that it allows almost anything to be sustainable.²⁵ “Sustainable development is in real danger of becoming a cliché like *appropriate technology*—a fashionable phrase that everyone pays homage to but nobody cared to define.”²⁶ Furthermore, many environmentalists seem to dislike the term sustainable development, since they believe it is a “license to economic growth.”²⁷

A major part of the discussion about the concept of sustainable development has focused on the contradiction between the two terms of sustainability and development. Sustainability or sustainable has its origin in the context of the harvesting and managing of renewable resources, such as forests, in such a way as not to damage future supplies.²⁸ This emphasizes the constraints and opportunities that nature presents to human activity. The task is to establish forms of management that do not lead to widespread irreversible damage to the natural environment. Development, on the other hand, implies a change often growth of some kind, whether material, qualitative, economic, exponential, or intellectual.²⁹ In the socio-political context, development most frequently implies economic growth. The contradiction lies in that sustainability implies preservation of a relative status quo or steady state condition, such as in the case of forest management to ensure a steady state of forest supplies. Development, on the other hand, is driven by some kind of change, such as quantitative growth.

It is unfortunate that the concept of sustainable development is based on terms that seem to symbolize such contradiction. However, taken together each term modifies the other to give the concept of sustainable development its particular meaning. Thus, the

meaning of sustainable development is a development that is consistent with social and ecological realities. This is vague and, according to Caldwell, the precise meaning of sustainable development depends on the practical situation where it is applied.

“Only when applied to specific processes or conditions do these words [sustainable and development] have implementable content.”³⁰

It is important to find as precise a definition as possible for sustainable development, so that a set of measurable criteria can be specified which can be used to create concrete development programs to implement sustainable development throughout the world. However, in this thesis the problems of the precise definitions of sustainable development are not the focus. I am primarily concerned with the fundamental messages behind the concept and its ethical framework. I will therefore not further discuss the precise definition of sustainable development as applied in different practical situations. Instead, I will view sustainable development as development that is consistent with social and ecological realities.

This is a concept of sustainable development that can be viewed as the center of the three spheres of the economy, society, and the environment (see figure 1).

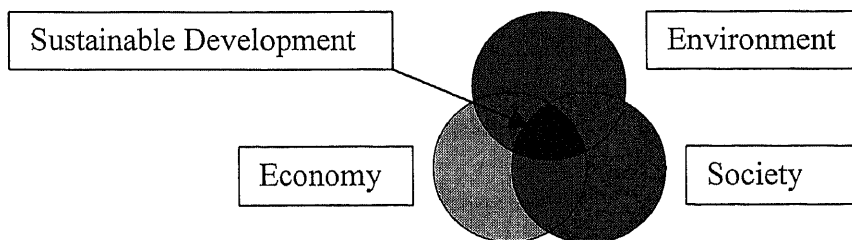


Figure 1. Sustainable development is achieved through a balance between the three spheres of the economy, society, and the environment.

In order to move in a more sustainable direction, we have to find a balance between the economy, society (including global equity, ethnicity, cultures and religions), and the environment. There are many overlapping approaches to sustainable development, which I have divided into three main groups, referring to which one of the three spheres of sustainable development that play the dominant one, i.e. the economy, society or the environment.

The first group approaches sustainable development mainly in terms of a free-market economy. This approach has been called weak sustainable development, since it lacks strong commitment to the social and environmental spheres of sustainable development.³¹ The second group approaches sustainable development from a social consciousness. This group has been called strong sustainable development, referring to its commitment to the social sphere of sustainable development.³² The third group approaches sustainable development from an environmental point of view and is called ideal sustainable development.³³ Table 3 (at the end of this chapter) summarizes these different approaches to sustainable development.

2.2.1 Weak Sustainable Development

Weak sustainable development is rooted in neoclassical economics and, as such, tries to integrate economic growth with environmental concerns. This approach is closely associated with the work of environmental economist David Pearce.³⁴ The objective is to promote sustainable development through economic growth and the global free-market in order to maintain the level of human well-being.

Economic markets focus upon profit and tend to allocate and reward investments with short-term paybacks. Some desirable policy outcomes, such as protection of the environment and conservation of natural resources, have traditionally not been achieved through reliance upon markets. However, in the weak approach to sustainable development, long-term goals and environmental considerations are described as environmental costs and externalities. These costs and externalities are then internalized in the free-market so that it becomes more efficient. An important feature of this approach is the term *maintaining well-being*, which does not necessary imply maintaining a level of consumption, or maintaining an intact overall stock of natural resources, but instead implies maintaining the well-being of humans through allowing substitutability of different natural resources (natural capital) and man-made capital.³⁵

This weak sustainable development approach favors the Northern view of economic growth since efficient free-markets only exist in the North. Furthermore, this approach only recommends minor attempts to redistribute investments to developing countries in order to encourage economic growth and local economic self-sufficiency in the South.³⁶ In addition, the weak approach to sustainable development does not extend equity to include future generations. The benefits are primarily for the present generation, but if inter-generational justice is considered then it is in the form of discounting rates.³⁷

Weak sustainable development has had an increasing influence on international agencies such as the World Bank and the Organization for Economic Cooperation and Development (OECD). This is not surprising since these lending agencies explicitly depend on further economic expansion to recoup their loans.³⁸

Policy tools for implementing sustainable development include various economic tools. For example cost-benefit analysis and marginal adjustment forces the market to take into account market failure through, for instance, taxes and tradable permits.

Weak sustainable development is closely associated with an anthropocentric and technocentric view of nature, where the environment is seen as a resource in the service of humans. The environment are limited to monetary values, and do not include, for instance, cultural and spiritual values. Weak sustainable development also reduces environmental problems to managerial problems, that are solvable through new technologies within the context of the dominant political and economic system.

2.2.2 Strong Sustainable Development

Strong sustainable development approaches sustainable development from a social consciousness point of view and acknowledges some of the limits of the weak sustainable approach, such as the inequity between the North and the South. The strong sustainable development approach further recognizes the need for deeper modifications of the market economy in order to create sustainable societies. This approach argues that there is a need for a different kind of economic development, that is focused on social and environmental issues. However, even if there were to be less of an emphasis on quantitative economic growth and instead more focus on qualitative development, the overall objective of development as growth remains.³⁹

The strong sustainable development approach has the greatest connection to, or similarity with, the Bruntland report, since equity is given an overriding priority. The major objective with strong sustainable development is to minimize the difference

between North and South by uplifting the living conditions in developing countries and satisfying basic human needs. Furthermore, equity is also extended to include future generations—our actions should not compromise the ability of future generations to meet their needs.

Strong sustainable development emphasizes the use of policy instruments such as legal, economic and fiscal tools in order to influence or force changes in human behavior. These instruments could, for instance, include legal regulations and land-use planning, green taxes pollution charges and tradable pollution permits, subsidies, information, etc.

The ethical framework for the strong sustainable development approach is predominantly anthropocentric, since it is the well-being of humans that is the primary moral obligation. However, the well-being of other living beings is also considered—“there are also moral, ethical, cultural, aesthetic, and purely scientific reasons for conserving wild beings.”⁴⁰

2.2.3 Ideal Sustainable Development

The ideal sustainable development approach is associated with the environmental movement, particularly the deep ecology movement.⁴¹ This approach envisages a form of pure or ideal sustainable development in which humans put as much back into the ecosystems as they take out. The ideal approach aims to offer a profound structural change in society, the economy and political systems, with the premise of a radical change in the attitude of humans towards nature and our environment.

According to this approach, there is no overall growth in traditionally quantitative terms.⁴² Instead growth is purely qualitative—through the quality of life rather than

standard of living. However, this could imply quantitative growth in some areas, such as in developing countries.

The precondition in this approach is an ecocentric position, which values the different forms of life and recognizes the inter-relatedness of all life. The environment therefore has its own value, regardless of its usefulness to humans. The ideal approach stresses the ecological perspectives of sustainable development.

This approach has been embraced by many environmental NGOs, which was evident at the Earth Summit, when much of the sustainable development debate had turned “green” and antidevelopmental.

2.3 Towards an Ethically Meaningful Concept of Sustainable Development

The three approaches presented, weak, strong and ideal sustainable development, could symbolize the transition from the old to the new environmental paradigm, as discussed by Caldwell. The old view, which is evident in the weak approach, sees the earth as a storehouse of resources to be used freely and developed by humans; strong sustainable development falls somewhere between the old and new views; and ideal sustainable development fully embraces the new environmental paradigm. This new environmental paradigm advocates a large social transition and views the earth as a domain of life, or biosphere, in which humans are temporary residents.

Given these three different basic approaches to sustainable development, the issue becomes one of finding an ethical framework for the concept of sustainable development. Our future, as well as the future of the usefulness of the concept of sustainable

development, lies in whether we can find a realistic and ethically justifiable policy that addresses the serious issues imbedded in the concept of sustainable development.

In the next chapter I will discuss the ethical framework of the Bruntland report. I have chosen to focus on the strong approach to sustainable development since it predominates in policy discussions and has been the common ground for many different interests groups—more of a middle ground position. However, the Bruntland report's definition of sustainable development is based on two assumptions, namely, that we have obligations to future generations and that we can predict their needs and preferences. These assumptions are ethically analyzed in the next chapter. I will discuss whether or not traditional moral philosophies such as utilitarian and contractarian theories can justify these assumptions and ultimately justify sustainable development according to the Bruntland definition.

Table 1. A Chronology list of main scientific and social events leading to the concept of sustainable development.⁴³

	EVENT	SIGNIFICANCE
1800	Lamarck expressed need to know a species from its connections to the whole	First identification of animal-plant-environmental interaction
1825	De La Malle identifies plant succession process	Recognition of intermediate species domination
1843	Stephen Forbes discuss effects of succession on animal habitat	Connects plant succession to changes in animal species make up
1859	<i>Origin of Species</i> , Darwin	Competition as a natural selection process
1863	Kerner von Marilaun, University of Vienna, studied plant associations in land around the Danube River	Concept formulated that plant species interact and are interdependent
1877	Karl Mobius, University of Kiel, coined "biocoenos," a community of living things	First expression of the collection of plants and animal as a interactive system
1878	Yellowstone Park created (USA)	First protection of environment by a government act—aesthetic ethic
1887	<i>The Lake as a Microcosm</i> , Stephen Forbes	Expansion of plant-animal community concept
1892	Sierra Club (NGO)	First NGO formed for nature (wilderness) conservation

Table 1. Continued.

1905	National Audubon Society (NGO)	Interest and protection of birds
1908	Women's National Rivers & Harbours Congress	Women became a political force in nature conservation
1909	National Conservation Congress (1909-1912) USA Adam & Shelford apply ecological concepts to animal sciences	
1913	Ecological Society of GB (NGO)	First nature conservation agency
1916	National Parks Act Biological Society of USA (NGO)	
1919	National Parks and Conservation Association (NGO)	
1935	Wilderness Society (NGO)	
1936	National Wildlife Federation (NGO)	
1949	<i>A Sand Country Almanac</i> , Aldo Leopold	Ecological perspective on land management—land ethic
1951	Nature Conservancy (NGO)	
1952	London Smog claims 4,000 lives	First major human health disaster from pollution
1955	Clean Air Act (USA)	First national pollution law enacted
1960	Clean Water Act (USA)	
1961	World Wildlife Fund (NGO)	
1962	<i>Silent Spring</i> , Rachel Carson	First alert of widespread pesticide pollution in environment
1963	Clean Air Act amended (USA)	
1964	Wilderness Act (USA)	
1965	Water Quality Act Solid Waste Disposal Act (USA) Clean Air Act amended (USA)	
1966	National Wildlife Refuge Systems	Recognition of species extinction by humans
1967	Environmental Defense Fund (NGO) Torrey Canyon oil spill (GB) Clean Air Act amended (USA)	Legal strategies focus of environmental protection First environmental catastrophe
1968	Zero Population Growth (NGO) Paris Biosphere Conference (UNESCO) <i>The Population Bomb</i> , Ehrlich First Club of Rome meeting Wild and Scenic River Act (USA) National Trails Act (USA)	Recognition of population problem Convened to study combination of sociology, economics, demography, ecology and biology as relates to environmental problems
1969	Friends of the Earth (NGO) Union of Concerned Scientists (NGO) National Environmental Policy Act	Forms basis for formation of US Environmental Protection Agency—first such national agency

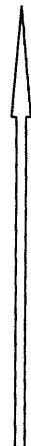
Table 1. Continued.

1970	National Resources Defense Council (NGO) Earth Day, April 22 Environmental Protection Agency established Clean Air Act amended (USA) Water Quality Control Act (USA)	World-wide public recognition of global environmental protection
1971	Greenpeace (NGO) France forms a federal environmental agency West Germany adopts federal environmental program	First environmental agency in Europe
1972	UN Stockholm Conference on Human Environment, Stockholm, Sweden First returnable bottle law, Oregon, USA Club of Rome issues the report <i>Limits to Growth</i> Water Pollution Control Act (USA) Marine Mammal Protection Act (USA) Insecticide, Fungicide, Rodenticide Act (USA) Coastal Zone Management Act	United Nations Environmental Programme created—first international recognition of environmental issues Connects population growth with economic, social, and environmental activities and predicts environmental and social collapse unless growth and environmental damage cease
1973	European Environmental Action Program created Endangered Species Act (USA)	
1974	CFC danger reported World population at 4 billion Safe Drinking Water Act (USA)	Identification of global environmental threat from UVb increases due to stratospheric ozone layer depletion
1975	Worldwatch Institute formed (NGO)	Begins observation of global social, economic and environmental conditions
1976	National Academy of Sciences opposed aerosol sprays (USA) Resource Conservation and Recovery Act (USA) Fishery Conservation Act (USA)	Hazardous material controlled
1977	North Sea oil spill (8.2 m. gallons) Clean Air Act amended (USA) Clean Water Act amended (USA) Ocean Dumping Act amended (USA)	
1978	Three Mile Island radioactive leak (USA) Amoco Cadiz oil spill off France (70 m. gallons)	

Table 1. Continued.

1979	Greenpeace (NGO) World population at 5 billion Oil tanker collision, Trinidad and Tobago (97 m. gallons)	
1980	Earth First! (NGO) <i>Global 2000</i> Report to President Carter (USA) Superfund (Comprehensive Environment Response Act (USA) Low-Level Radioactive Waste Act (USA)	
1982	Earth Island Institute (NGO) Rocky Mountain Institute (NGO) UN World Charter for Nature Nuclear Waste Policy Act (USA)	
1983	Die Grünen elected to parliament, West Germany	Green party becomes first politically empowered environmental group
1984	North American Bioregional Congress I Bhopal plant disaster, India Bruntland Commission appointed Famine in the Sahel, Africa First Worldwatch Institute <i>State of the World</i> report Resource Conservation and Recovery Act amended (USA)	Comprehensive global social, economic and environmental indicators
1985	Rain Forest Action Network (NGO) Antarctic ozone hole discovered	
1986	Nuclear plant explosion, Chernobyl, Ukraine Safe Drinking Water Act amended	
1987	The Bruntland report <i>Our Common Future</i> Montreal CFC Protocol Clean Water Act amended (USA)	Synthesizes the concept of sustainable development First global treaty for environmental protection of the Stratospheric Ozone layer
1990	Clean Air Act amended (USA)	First Act to use the economic incentive of tradable permits on SO _x emissions
1992	The Earth Summit, Rio de Janeiro, Brazil	

Table 2. A summary of the key issues in the three different approaches to sustainable development.⁴⁴

Approach to Sustainable Development	Role of Economy	Role of Equity	Role of Nature	Geographical Focus	Civil Society	Policies and Sectoral Integration	Institution	Policy Instruments and Tools	Ethics
<i>Ideal Model</i>	Environmentally regulated market; major changes in levels of production and consumption	Inter- and intra-generational equity	Strong commitment to nature; promoting and protecting biodiversity	Bioregionalism; extensive local self-sufficiency	Bottom-up community structures and control.	Holistic intersectoral integration	Decentralization of political, legal, social and economic institutions	Full range of policy tools; sophisticated use of indicators	<div> <div>Eco-centric</div>  <div>Anthropocentric</div> </div>
Strong Sustainable Development	Environmentally regulated market; some changes in patterns of production and consumption	Equity a major issue; strengthened redistribution policy	Commitment to nature; environmental management and protection	Heightened local economic self-sufficiency, promoted in the context of global markets	Open-ended dialogue and envisioning	Environmental policy integration across sectors	Some restructuring of institutions	Advanced use of sustainability indicators; wide range of policy tools	
Weak Sustainable Development	Market-reliant environmental policy; small changes in patterns of consumption, exponential growth	Equity a marginal issue	Replacing finite resources with capital; exploitation	Global markets and global economy with some initial moves to local economic self-sufficiency	Top-down initiatives; limited state-environmental movements dialogue	Sector-driven approach	Minimal amendments to institutions	Token use of environmental indicators; limited range of market-led policy tools	

¹ The *World Conservation Strategy* was launched in March 1980 after three years of intensive effort organized through the International Union for Conservation of Nature and Natural Resources (IUCN) also called World Conservation Union. The IUCN is a non-governmental organization (NGO) most consistently and comprehensively involved with the earth's environment. The *World Conservation Strategy* was also sponsored by the United Nations Environmental Programme (UNEP) and World Wildlife Fund (WWF). The purpose of the *World Conservation Strategy* was to activate decision-makers and the general public, and stress the need for conservation of the world's land and marine ecosystems. For further readings see: Lynton K. Caldwell, *International Environmental Policy: From the Twentieth to the Twenty-First Century*, 3rd edition (Durham: Duke University Press, 1996) and ICUN, *World Conservation Strategy: Living Resource Conservation for Sustainable Development* (Gland: ICUN, UNEP, WWF, 1980).

² R. Lee Hatcher, "The Pre-Bruntland Commission Era," in *Textbook on Sustainable Development*, Bhaskar Nath, et al., eds. (Brussels: Vubpress, 1996) p. 58.

³ Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962).

⁴ For a discussion about how Carson has influenced the environmental movement and environmental regulation, see: John Opie, *Nature's Nation: An Environmental History of the United States* (Fort Worth: Harcourt Brace College Publishers, 1998), p. 413–6.

⁵ Caldwell, *International Environmental Policy: From the Twentieth to the Twenty-First Century*, p., 65–7.

⁶ Indira Gandhi, prime minister of India at the time of the Stockholm conference, found poverty to be the greatest environmental problem. *Ibid.*, p. 65.

⁷ *Ibid.*, p. 67.

⁸ *Ibid.*, p. 79–103.

⁹ *Ibid.*, p. 65–7.

¹⁰ *Ibid.*, p.48–9.

¹¹ Garret Hardin, "The Tragedy of the Commons," *Science* 162 (1968): 1243–8 and Paul R. Ehrlich *The Population Bomb*, reprinted edition, 1st edition published in 1968 (London: Amereion Ltd., 1976).

¹² Donella H. Meadows, *Limits of Growth* (New York: Unwise Books, 1972).

¹³ *Ibid.*, p. 8.

¹⁴ John Kirkby, et al., *The Earthscan Reader in Sustainable Development* (London: Earthscan Publications Ltd., 1995) p. 7.

¹⁵ The World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987), p. 49–65.

¹⁶ Ibid., p. 17–23.

¹⁷ United Nations, *The United Nations Conference on Environment and Development, Rio de Janeiro 3–14 June 1992*, vols. 1–3 (New York: United Nations, 1993).

¹⁸ Caldwell, *International Environmental Policy: From the Twentieth to the Twenty-First Century*, p. 119.

¹⁹ United Nations, *The United Nations Conference on Environment and Development, Rio de Janeiro 3–14 June 1992*, vols. 1–3 (New York: United Nations, 1993).

²⁰ United Nations, *United Nations Framework Convention on Climate Change* (New York: UN Department of Public Information, 1992) and United Nations, *Earth Summit: Convention on Biological Diversity* (New York: UN Department of Public Information, 1992).

²¹ Caldwell, *International Environmental Policy: From the Twentieth to the Twenty-First Century*, p. 118.

²² John Kirkby, et al, *The Earthscan Reader in Sustainable Development*, p. 10.

²³ United Nations, *The Earth Summit + 5: Programme for the Further Implementation of Agenda 21* (New York: United Nations Department of Public Information, 1997).

²⁴ At the Earth Summit, environmentalists embraced sustainability, while many business and government leaders praised development. However awkward the pairing of these words may have seemed, their combination signified a rare convergence in ecological and economic thinking. Lamont C. Hempel, *Environmental Governance: The Global Challenge* (Washington, D.C.: Island Press, 1996) p. 39–40.

²⁵ Michael Jacobs, *The Green Economy: Environment, Sustainable Development and Politics of the Future* (London: Pluto Press, 1991), p. 59–60.

²⁶ Sharachchandra M. Lele, “Sustainable Development: A Critical Review,” *World Development* 19 (1991), p. 607.

²⁷ Johan Holmberg and Richard Sandbrook, "Sustainable Development: What is to be Done?" in Johan Holmberg, ed. *Policies for a Small Planet* (London: Earthscan, 1992), p. 21.

²⁸ See discussion about Gifford Pinchot's Resource Ethic in chapter 1, footnote 1.

²⁹ Caldwell, "The Concept of Sustainability: A Critical Approach," in *Ecological Sustainability and Integrity: Concepts and Approaches*, John Lemons, et al., eds. (Dordrecht: Kluwer Academic Publishers, 1998), p. 1.

³⁰ Ibid., p. 10.

³¹ Wilfred Beckerman, "Sustainable Development: Is it a Useful Concept?" *Environmental Values* 3 (1994), p. 191–209; Herman E. Daly, "On Wilfred Beckerman's Critique of Sustainable Development," *Environmental Values* 4 (1995), p. 49–55; Michael Jacobs, "Sustainable Development, Capita Substitution and Economic Humility: A Response to Beckerman," *Environmental Values* 4 (1995), p. 57–68; Henryk Skolimowski, "In Defense of Sustainable Development," *Environmental Values* 4 (1995), p. 69–70; Wilfred Beckerman, "How Would you like your Sustainability, Sir? Weak or Strong? A Reply to my Critics," *Environmental Values* 4 (1995), p. 169–179; Susan Baker, et al., *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union*, (London: Routledge, 1997), p. 8–40; and Robert O. Vos "Introduction: Competing Approaches to Sustainability: Dimensions of Controversy," in *Flashpoints in Environmental Policymaking: Controversies in Achieving Sustainability*, Sheldon Kamieniecki, et al., eds. (Albany: State University of New York, 1997), p. 1–27.

³² Ibid.

³³ Ibid.

³⁴ David Pearce, et al., *Blueprint for a Green Economy: A Report for the UK Department for the Environment*, (London: Earthscan, 1989).

³⁵ Wilfred Beckerman, "Sustainable Development: Is it a Useful Concept?" p. 195.

³⁶ Susan Baker, et al., *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union*, p. 15.

³⁷ I shall refrain from further details about the distribution of resources between generations and the utilitarian use of discounting rates, since they are too complex for the scope of this thesis. For an extensive discussion about discount rate, I recommend: Wilfred Beckerman, "'Sustainable Development': Is it a Useful Concept?" *Environmental Values* 3 (1994) p. 191–209; and James R. Kahn, *The Economic Approach*

to *Environmental and Natural Resources*, 2nd edition (Fort Worth: The Dryden Press, 1997), p. 110–1.

³⁸ Bruce Rich, *Mortgaging the Earth: The World Bank, Environmental Impoverishment, and Crisis of Development* (Boston: Beacon Press, 1994).

³⁹ Susan Baker, et al., *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union*, p. 15.

⁴⁰ The World Commission on Environment and Development in *Our Common Future*, p. 13.

⁴¹ Susan Baker, et al., *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union*, p. 8–40; and Robert O. Vos “Introduction: Competing Approaches to Sustainability: Dimensions of Controversy,” in *Flashpoints in Environmental Policymaking: Controversies in Achieving Sustainable Development*, Sheldon Kamieniecki et al., p. 16–21. For further reading about Deep Ecology see: Arne Naess, *Ecology, Community and Lifestyle: Outline of an Ecosophy*,” Trans. David Rothenberg (New York: Cambridge University Press, 1989).

⁴² Susan Baker, et al., *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union*, p. 16.

⁴³ The table is based on R. Lee Hatcher’s table 1 in: R. Lee Hatcher, “Chapter 2: The Pre-Bruntland Commission Era,” in *Textbook on Sustainable Development*, Bhaskar Nath et al., eds., p. 76–8.

⁴⁴ This table is based on table 0.1 in Susan Baker et al., *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union*, p. 11.

CHAPTER 3

DO WE OWE SUSTAINABLE DEVELOPMENT TO FUTURE GENERATIONS

The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased; and not impaired in value.

Theodore Roosevelt, *The New Nationalism*, 1910

The concept of sustainable development, as described in the Bruntland report, acknowledges that we do have certain moral obligations to future generations.¹ Our actions today should ensure not only our ability to meet our own needs but also that we do not compromise the ability of future generations to meet theirs. At first glance, this obligation might seem quite straightforward: we ought to save something for the future. This kind of posterity argument appeals to many people because of their desire to pass on something that matters to them.

Several prominent politicians, policy analysts, and environmentalists use these kinds of emotional arguments since they speak directly to the heart of an individual. Al Gore, vice-president of the United States, writes that he wants his children and their children, and so on, to be able to drink clean water and experience the richness and diversity of nature.² John Passmore, another advocate of our moral obligation to future generations, regards the grounds for our obligation to future generations as a “chain of love.” Passmore argues, “there is, then, no novelty in a concern for posterity, when posterity is thought of not abstractly—as ‘the future of mankind’—but as a world

inhabited by individuals we love or feel a special interest in.”³ These kinds of emotional arguments are passionate, but are they truly a demonstration of our moral obligations to future generations? I believe that most parents would be willing to change or even sacrifice some of their own needs in order to satisfy the needs of their children. However, caring for your children and grandchildren is not the same as expressing moral obligations to future generations.

From a biological point of view, caring for and nurturing one’s offspring has been a successful trait in human evolution. Unfortunately, one might say, we have been too successful. The enormous increase in human population and our unrelenting demand for economic growth has led to the ecological crisis that we are facing today. Sustainable development attempts to establish a new path of development—a more equitable and ecological development, both in the present and for future generations. Sustainable development raises the moral question of relations between generations. Caring for future generations, and the nature of our moral obligations to them, demand careful analysis. Our obligations to future generations cannot be based solely on sentiment. Sentiment and posterity arguments can serve as catalysts for environmental policies and environmental action. Nevertheless, emotional arguments alone are not a sufficient motivation for acting and expressing moral obligations to future generations.⁴

There seems to be no question about our moral obligation to people of the next few generations. We ought to have the same theory of justice for them as we have for people of our own generation and of other generations now living. Why? The next few generations will have roughly the same needs and preferences we have today. We also have a fairly good idea of their identities, since they are our offspring and products of our

societies, religions, cultures, etc. The problem arises when obligations to remote future generations are discussed. Remote future generations are generally understood to mean more than ten generations, or 250 years or more from the present.⁵

One might think that since it is a problem to justify moral obligations to remote future generations, they should not be considered in determining policies. However, sustainable development affects future generations both in the near and remote future in basically two ways. Firstly, it affects peoples' lives—their standard of living or quality of life. Secondly, sustainable development will determine the identity of people—the very existence of future people. Because future generations, both near and remote, would be affected by sustainable development, we cannot, in my opinion, exclude remote future generations when discussing the moral obligation to future generations.

In this chapter, I will discuss how the traditional moral philosophies of utilitarian and contractarian theory deal with moral obligations to future generations. I have chosen to discuss these two philosophies since they are often used as an ethical framework in making public policy. At the end of this chapter, I will also discuss philosopher Avner de-Shalit's theory of transgenerational community, which I see as an extension of contractarian theory mixed with traditional posterity arguments. I will give a short introduction to both utilitarian and contractarian theory, in which I will summarize some of their key elements. However, my main focus throughout the chapter is to explore how utilitarian and contractarian theory justify the moral obligation to future generations. I will challenge these traditional moral philosophies and discuss whether they can truly provide us with arguments that show that we have a moral obligation to future generations.

3.1 Utilitarianism

In its classical form, utilitarianism maintains that we ought to act so as to promote the greatest good for the greatest number of people.⁶ This principle of the maximization of happiness can be stretched over generations, since utilitarianism is a universal theory of ethics that considers each person's interests to the same degree. "Each to count for one, no one to count for more than one."⁷ The utilitarian framework does not take into account ethnicity, gender, nationality, nor the time in which one lives. "Happiness, or utility, is as intrinsically good this year as it will be ten, twenty or five hundred years from now."⁸ This means that the principle of maximization of happiness can be extended to include future generations. The best policy of action is the one that promotes the greatest transgenerational happiness and causes the least transgenerational pain.

Utilitarianism is a form of consequentialism: it is the consequences, or results, of an act or policy that are in focus. A policy such as sustainable development, which affects future generations, should be judged according to its consequences or expected outcomes in the future as well as how it affects people living today. Utilitarianism assumes that these results can be meaningfully quantified and measured. These kinds of calculations can be done with a cost-benefit analysis, in which the quantification normally is based on economic valuation.

Cost-benefit analysis is a tool used in policy making. In a cost-benefit analysis, the total benefits and costs involved in a policy or project are calculated. The costs are subtracted from the benefits, and if the benefits are greater than the costs, then the cost-benefit analysis is in favor of the policy or project. These kinds of calculations are controversial, especially when they involve the natural environment and costs and

benefits that extend far into the future.⁹ Some of the reasons why cost-benefit analysis is so controversial have to do with the fact that it shares some common problems with utilitarian theory in general, such as identifying and calculating future peoples' needs and preferences, as well as their identity. These essential issues will be discussed in this chapter. In addition, I will present two different schools of thought—average utilitarianism and total utilitarianism—and discuss how they might influence population policy.

3.1.1 Average and Total Utilitarianism

Sustainable development is closely linked to population policy, since the enormous increase in human population that we see today is based in part on the unsustainable use of the earth's resources. Many environmental problems, such as resource depletion, pollution, and climate change, can be viewed as direct consequences of people's behavior and their numbers. This effect has been referred to as the "tragedy of the commons."¹⁰ Ecological misbehavior over the last few decades has caused obvious environmental problems. However, the over-stressing of the environment due to the sheer numbers of people, while perhaps not as obvious, might in fact be as severe. When the capacity of the environment is exceeded by human demands for space, food, energy, and waste disposal, the problems that are created are simultaneously human and environmental. This is why a broad policy such as sustainable development is needed, for it is a policy that deals with economic, social, and environmental issues. Thus, one can see population policy as part of sustainable development. And since they both raise questions about moral obligations to future generations, I am going to use population policy as an example of how

utilitarianism deals with obligations to future generations in general.

How does the utilitarian principle of maximization of happiness apply to population policy? If I know that my children will be happy, do I have an obligation to bring them into this world to increase the transgenerational happiness? On the other hand, if my future children are going to be less happy, does this mean that I should not conceive them? Is it acceptable to produce more and more children as long as they are happy? Before I can answer these questions, I will consider the distinction between the notions of total and average happiness and show how these two different utilitarian concepts tackle some of the above questions.

With a fixed population there is not much difference between total and average utilitarianism. However, the two utilitarian schools of thought, total and average happiness, both run into problems since they deal with generations of people to come and not a fixed population.¹¹

Average utilitarianism, which endorses the principle of average happiness, has to confront problems like the following hypothetical situation: I live in a “happy” community on the Upper West Side of New York City. Suppose that I decided to have a child and the child turns out to be less happy than the average individual in my community. An average utilitarian would have recommended that I not have the child in the first place, because a less happy child would lower the average happiness of the community. However, using average utilitarianism as a principle in determining population policy might not only have the outcome of guiding people to stop conceiving children, since there are other ways to maximize the average utility. For example, average utility could increase by getting rid of all unhappy people, provided that this does not

affect the happiness of the happy ones. Therefore, to average utilitarians genocide would be acceptable as a draconian measure since it would be justifiable in that it would increase the average happiness. The average utilitarian guidelines for population policy would therefore be either to stop conceiving children, so that we who already exist can continue to live in a happy way and hopefully even develop in a sustainable way, or to get rid of unhappy people. Both of these guidelines could have extremely inhumane results, especially in developing countries where children are sometimes the only investment in the future and the only hope for many people for a secure old age.

Let us now turn to total utilitarianism and see what kind of influence its position could have on population policy. The goal of total utilitarianism is to maximize the number of happy people. This utilitarian perspective is also problematic. A total utilitarian would recommend that I have the child, even though he or she might be less happy than the average, since the child's happiness, as well as the happiness he or she would bring to me and my partner, all add up to a greater total happiness. Thus, according to total utilitarianism, we are obliged to produce as many children as possible as long as their existence adds to the total sum of human happiness.¹²

Although the guidelines advocated by total utilitarianism would be the opposite of that of average utilitarianism, they are equally absurd. In my opinion, the earth is already overpopulated today. Using total utilitarianism as the basis for making population policy would cause the human population to expand even further, resulting in more unsustainable development.

Jan Narveson, a philosopher who is in support of total utilitarianism, acknowledges some of the shortfalls of this view, claiming that we do not have any

obligation to reproduce unless bringing forth a child would prevent suffering.¹³ According to Narveson, there is no moral obligation to produce a child, even if we could be sure that he or she would be happy, but there is a moral obligation not to produce a miserable child.

This argument leads us to the conclusion that it is preferable not to produce a child, because, even if the child is happy, no obligation has been fulfilled, but if he or she is miserable, a duty has been violated. At least Narveson's argument does not propose the cruel measures discussed above.

However, Narveson's position is "person-regarding," meaning that obligations always have to be directed towards someone.¹⁴ Since future generations do not yet exist, this kind of morality makes it difficult to have obligations to those future generations. However, one could argue that there is an obligation to future people if one is certain that they will exist. There is therefore a distinction between future people and possible future people.¹⁵ Future people are those whose existence is independent of our actions or policies today. For example, I might intend to have children in the future whether or not sustainable development is implemented. On the other hand, possible future people are those whose existence depends on a given action. For example, my future grandchildren's children might not exist if we do not now adopt sustainable development. Narveson argues that his person-regarding morality implies moral obligations only to contemporary and future people. In the next section I will discuss an objection to this argument.

3.1.2 The Identity Problem

The “Identity Problem” was originally put forward by philosopher Derek Parfit to argue against adopting a person-regarding morality in the context of energy policy.¹⁶ Parfit’s argument goes along these lines:

1. If I had been born in a different month, or another time, then I would have been a different person.
2. Our actions now, and the policies that we endorse, affect people’s behavior and destinies, which also implies the identity of future persons. For example, had my father not met my mother, then I would not exist.
3. Suppose that we had to choose between two policies. One is to deplete a high percentage of the available resources—live in a very unsustainable way—and the other is to conserve resources—live in a sustainable way. The result of the unsustainable policy would be a higher standard of living for the present generation. A result of this could be that many children would be conceived. These children would all be different from those who would have been born if the sustainable policy had been chosen. The result of the latter policy could be a higher standard of living for future people relative to those who would have been born as a result of the unsustainable policy.

Parfit’s argument leads to the following paradox. If we have an unsustainable policy, then we do not harm anybody, because if we had chosen a sustainable policy then different people would exist. According to a utilitarian analysis, this paradox reveals that we really have no duty to future generations because of the fact that it is a certain set of people that would be created, and not others, when adopting a policy. This further implies

that it is this set of people, and not others, that would benefit and, as such, would have no right to complain about distribution, welfare, and so forth.

A utilitarian objection to Parfit's argument would be that we should look at the amount of happiness that each policy will bring to present and future people, whoever they are, and decide accordingly which is the preferable policy.¹⁷ This would work as long as the population number is fixed. However, the different policies affect not only who is going to exist but also the number of people that will be born. Because the utilitarian person-regarding morality is so problematic, it is my conclusion that we should choose a non-person-regarding morality instead.

3.1.3 Intergenerational Distribution of Resources

Dealing with population policy and sustainable development also brings up questions of intergenerational distribution. For example, we do not know for sure how long we humans are going to exist, but we believe that if we adopt a more sustainable lifestyle, then the earth's resources will last much longer, and humanity stands a better chance of surviving. This change in lifestyle, adopting a more sustainable lifestyle, may cause us great discomfort now and for a couple of generations to come. However, the unhappiness now might be outweighed by the gains in the far distant future, which could be substantial. However, questions about intergenerational justices and how to distribute resources between generations are complex. Utilitarian philosophy is not clear on these issues. According to de-Shalit, "the principle of maximizing utility over generations says nothing about what the distribution of resources should be, beyond the fact that the distribution is dictated by the overall goal."¹⁸ Utilitarianism can therefore either ask too

much of us contemporaries, or ask too little of us, which is the case if we do not have any moral obligation to future generations.¹⁹

3.1.4 Future Peoples' Needs

If people in the future could speak to us in order to influence our perceptions and actions, what would they say? What would they need? A clear understanding of the needs of future generations might lead us to overlook some of the practical problems involved in calculating the outcome of a policy such as sustainable development. However, how would we be able to find out the needs and preferences of future people?

In order to gain as accurate a sense as possible of the needs of future generations, philosopher Allen Tough led a survey based on role-playing.²⁰ The role-play participants were students from nine different countries, ranging from high school to postgraduate in the fields of future studies, business, philosophy, and communication. The study was conducted at 13 locations all around the world.

The students were instructed to play the roles of people who would be alive several decades from now. They were asked to describe what their needs would be as well as what kind of messages and recommendations they would send back to the people and governments of today. Combining the results of the role-play with a literature search about people's needs in the future, Tough was able to construct a hypothetical scenario regarding the needs of future people. These needs were divided into seven categories: Peace and Security, Environment, Catastrophes, Governance, Knowledge, Children, and Learning.

In my opinion Tough's study as well as many other prediction models are absurd. To make predictions about what might happen in the future, especially the very distant future, involves too many uncertainties, making it almost impossible to measure the outcome of a policy.

Nevertheless, the satisfaction of human needs, both in the present and in the future, is a major objective of sustainable development. The Bruntland report defines essential human needs as the minimum standards of needs for job, food, energy, water and sanitation.²¹

These basic needs might be what many people in developing countries are hoping to fulfill today. At the same time, many people, especially in developed countries, are trying to satisfy more materialistic needs. In satisfying people's needs, whether they are living today or in the future, one always has to consider that needs and preferences are highly subjective. I do believe that there are some basic essential needs, such as nutrition, clean water, and shelter, etc. However, once these basic needs have been satisfied, other needs emerge, and these needs are determined by an individual's taste, which is subjective and can be easily manipulated. For instance, people in the future might prefer plastic trees to real ones, since future tastes will to a significant degree be determined by what is advertised, or what people are taught to like, and ultimately by what is available.²²

Environmental philosopher Eric Katz argues, and I agree, that there are weaknesses in using utilitarian arguments, such as satisfying human needs and preferences, to motivate environmental action.²³ Katz's position is that if utilitarian views were the goal of environmental policy, then saving rare species and preserving natural environments might not lead to the maximization of human satisfaction. Humans might

in fact be happier in an artificial world, and Katz draws this conclusion. “Only when the preservation of natural objects is seen to be an intrinsically good policy of action, rather than a means to some kind of satisfaction, will a policy of environmental protection be explained and justified.”²⁴

The difficulties we experience in applying utilitarianism to sustainable development derive from the fact that the very existence of future people and thus also their needs and preferences depend upon policies which are in affect today. How are we to decide on a policy by calculating utilities when, at the same time, this decision effects future peoples’ needs, preferences, identities, or even existence?

3.2 Contractarian Theory

Utilitarianism is a consequentialist theory and as such bases morality solely on the consequences of actions. Utilitarianism strives to maximize happiness, which, according to philosopher Immanuel Kant, is a morality based on a “hypothetical imperative.” Such a morality is based on terms, or commands, that express subjective preferences.²⁵

On the other hand, there are systems of ethics that base morality on Kant’s “categorical imperative,” which proposes that there are unconditional ethical duties that apply in all possible circumstances, regardless of our goals or the result of our actions.²⁶ An ethics that is based on Kant’s categorical imperative is referred to as non-consequentialistic ethics or deontological ethics. This ethics commands actions that are independent of a desired end, such as happiness.

Contractarian theory has its origin in natural-law theory and is based on a non-consequentialistic ethic. The notion of a social contract in which morality is founded

solely on uniform social agreements that serve the best interests of those who make the agreements was first introduced by Thomas Hobbes, John Locke and Jean-Jacques Rousseau.²⁷ A contemporary version of social-contract theory has been presented by philosopher John Rawls, and is most clearly set forth in his book, *A Theory of Justice*.²⁸

For Rawls, justice is “the way in which social institutions distribute fundamental rights and duties, and determine the division of advantages from social cooperation.”²⁹ The central concept of Rawls’s theory is his “original position,” which is based on the assumption that a “free and rational person concerned to further their own interests would accept an initial position of equality as defining the fundamental terms of their association.”³⁰ In simple terms, we would all voluntarily agree to a contract that sets forth how to distribute all economic and social benefits fairly and objectively.

Why would people agree to such a contract? According to Rawls, people would agree to the contract if they did not know the specifics of their own status—if they were behind a “veil of ignorance.”³¹ This veil of ignorance is like imagining that you exist outside the world and that you are suddenly thrust into it, not knowing your specific status. You might be born in the U.S. or Bangladesh, rich or poor, athletic or suffering from birth defects, facing the world today or some hundred years from now. If we could think beyond our physical and social circumstances, then we would be able to see ourselves as if from behind a veil of ignorance, and then we would agree to a contract that would be fair and objective.

Rawls does not believe that people would act out of general ignorance, only ignorance of their own position. He assumes that the person in the original position would have all the available knowledge concerning economic theory, political affairs, human

behavior, the basis of social organizations, and so on—all that would be required by a person to make an informed decision in determining principles of justice.

From the perspective of Rawls' original position, it would seem that we have moral obligations to future generations, even though Rawls does not explicitly address this. However, acting under a veil of ignorance where we do not know our own specific status could include not knowing when one lives, which could imply a moral obligation to future generations. In order to have such obligations, we have to accept the underlying assumptions on which the original position is based. We have to assume that it is possible to enter into a contract with not-yet-born people and that we can keep an ongoing contract over many generations. We also have to believe that there is some kind of equality of power between generations. Further, we have to assume that it is possible to enter into a contract without thinking about our physical and social circumstances.

If we can accept these assumptions, then we have found an ethical theory that can justify moral obligations to future generations and serve as an ethical framework for sustainable development. My objective here is to discuss some of these underlying assumptions in Rawls' original position.

3.2.1 Contract with Not-Yet-Born People and Keeping a Contract

It is possible for individuals of the same generation to enter into a contract, but how can this agreement be passed on to future generations without being changed? For example, if people living today were to agree on sustainable development, how could future generations be bound to this agreement? Another relevant question, is it possible for us to enter into a contract with people who are not yet born?

There is, of course, an obvious problem with entering into a contract with not-yet-born people—they are not here to sign the agreement. However, this physical limitation of entering into a contract with not-yet-born people can be sidestepped, according to contractarian theory, since a contract can be made between several existing generations with future generations in mind.³² For example, I could enter into a contract with my grandparents' and parents' generation, since we are all part of contemporary generations. According to contractarian theory, I would only agree to a contract if I thought it would be accepted by or beneficial for my future children and their generation. Philosopher David Gauthier expresses this chain of connection between generations in the following way: "No matter when one lives, one should expect the same relative benefits from interaction with one's fellows as were enjoyed by one's predecessors and as will be enjoyed in turn by one's successors."³³

Although it makes sense to speak of contemporaries entering into agreements or contracts with one another, it makes no sense to speak of a contractual obligation towards future people, since there is nothing that future people, apart from our immediate descendants, can do for us in return. People in the future cannot harm or punish us for adopting policies now that are sustainable or not. Contemporary generations are therefore superior to future generations since they decide on various policies that determine, for example, how resources should be distributed, and what should be conserved, and all these policies will ultimately determine how many and who these future people will be.

A contract implies obligations, and therefore, if a contract were to concern sustainable development, all generations that entered into the contract would agree to move in a more sustainable direction. They would do so because they believed that they

would benefit from this contract. However, once the contract has been implemented, why should one continue to uphold it? Today, the motivation to enter into a contract of sustainable development is that we fear that if every generation depletes resources the way we are doing today, then all generations, including ours, will be worse off. Yet, this is not, and cannot be, the reason for remaining committed to the contract, because we have already enjoyed our predecessors' savings and acts of conservation, and we cannot enjoy them again. Thus, from a contractarian perspective we must obligate all generations to remain in the contract of sustainable development if we want to maintain the contract. But what would force people now and in the future to abide by the contract?

Within a single generation, or between contemporary generations, this is brought about by a sense of reciprocity. For example, laws are contracts that people in a country or state are expected to obey. If someone were to violate a law, then he or she would be punished. Most people would therefore abide by the contract out of fear of punishment, which is in essence a fear of reciprocity. In the intergenerational context this direct reciprocity is absent and therefore the motive for maintaining a contract is lost.³⁴

However, one could consider emotionally charged posterity arguments, such as the chain of connections between generations, as a kind of reciprocity between generations.³⁵ The argument would go along these lines: I would stick to a contract, such as planting a new tree for every tree I cut down, and I would do so out of love for my children's grandchildren. My future children and their children, and so on, will love me back and enjoy the trees that I have planted, just as much as I love my greatgrandfather who planted the trees that I am cutting down now. According to contractarian theory, this tight chain of connection between generations creates reciprocity.

De-Shalit argues that there are two interpretations of reciprocity in the intergenerational context.³⁶ One is that reciprocity exists when there is a mutual advantage and the other is when there is some kind of fair play. Considering at the first, contractarians might defend the idea of mutual benefit between generations by arguing the following: I would only agree to a contract with my parents' and grandparents' generations if I thought the contract would benefit my future children and their generation. Using this argument, reciprocity could also apply between generations that are even further apart since it just involves adding more links to the chain of generations.

This argument might seem plausible between generations in the near future, but the argument is not convincing with respect to remote future generations. Imagine the following conversation between generations C and E concerning two contracts P and Q, which also involves generation A, B and D:³⁷

Generation C (to E): "Let's cooperate and make an agreement Q."

Generation E (to C): "But you had a better agreement with generation A and generation B. You had agreement P and I want P too."

Generation C (to E): "Well, sorry. Take it or leave it. I would benefit more by adopting agreement Q, and since I have already benefitted from P, I would actually be fine without any agreement at all."

E would want to reach an agreement, since according to contractarian theory it is better for E to cooperate than not to do so. Suppose that generations C, D, and E reach an agreement. This agreement is not guaranteed to be the same agreement that generation C had with generations A and B, which was agreement P. In fact, it is more rational for generation C to agree only to Q, because C will benefit more from Q than from P. If the agreement between C, D, and E is Q, then contractarian theory fails to support an ongoing

contract, since the contract has changed from P to Q. This leads to the conclusion that it is not possible to justify moral obligations to generations in the remote future, since contracts are likely to change over time. If, on the other hand, the agreement between C, D, and E is P, then there will not be any genuine mutual advantage since generation C will be better off with agreement Q. The conclusion in this case is that mutual-advantage reciprocity would not exist for remote future generations, and therefore the motivation to stick to the contract is lost.

The other type of reciprocity in the intergenerational context is the idea of fair play between generations. Fair play works when it is applied in a direct fashion. Take for instance, the following scenario: Claire, the roommate of my hairdresser, Robert, is an airplane stewardess. He cuts her hair, and she gives him free plane rides—they practice fair play. However, in the intergenerational context, fair play is indirect since it involves two groups of nonexistent persons—past and future generations. In the case of sustainable development, fair play would not be relevant in an intergenerational context. Previous generations have been polluting and damaging the environment and have left the earth to us, contemporary generations, in a miserable state. According to the fair play argument, we should treat the earth just as badly as previous generations have and should continue to leave the earth in a miserable state for future generations. So if we adopted sustainable development, it would be as if we were giving something to the next generation, without receiving anything from our previous generation. The notion of reciprocity as fair play is too vague and, in my opinion, does not apply in the intergenerational context and definitely does not apply in the case of sustainable development.

I believe that in order to make a contract work over several generations, contractarian theory has to be able to show that there is some kind of equality of power between generations so that an equilibrium between generations can be established.

3.2.2 Equality of Power between Generations

The inequality of power between generations might seem evident: people far into the future cannot harm us in any way. They also would not have the power to stop us from polluting, or from living in an unsustainable way. However, according to contractarian theory, there is an equality of power between generations that creates moral obligations that are just as strong as those obligations that are shared by people living together today. The contractarian theory of equality of power is based on the idea that individuals, no matter when they live, will be roughly similar in physical and mental powers, or at least have comparable capacities.³⁸ The contractarian might agree that contemporary generations are superior to future generations in some ways, but that the latter have superior powers in other ways. The argument is that future generations will have power over more distant future generations. Hence a kind of equality of power will exist. Let's consider the following example:³⁹

The difference in power between two generations, say, C and D, is neutralized by and compensated by the difference in powers between generations D and E, which is neutralized by the difference between E and F, and so on. However, if generation A is superior to B, which is compensated by B being superior to C, then, according to this argument, A must be superior to C, which is compensated by C being superior to E. Now suppose that we have a history of eight generations, A, B, C, D, E, F, G, and H. What

would be the situation of one particular generation? Let's examine generation F. A is superior in power to F, B is superior in power to F, C is superior in power to F, D is superior in power to F, E is superior in power to F, F is superior in power to G, and F is superior in power to H. In this example, only the superiority of D and E to F would be compensated. Suppose n is the number of generations in history. If n is an even number, then the last $n/2$ generations will suffer a lack of equality of powers. However, if n is an odd number, then the last $(n-1)/2$ generations will suffer a lack of equality of powers.

This chain of relations between generations, as shown in the above example, cannot replace equality in power in the intergenerational context. There can therefore be no equality of power between generations that live at different times.⁴⁰ "We [current people] and they [future people] are not positioned in such a way as to be able to reciprocate with each other concerning the constituent ideas and controlling aims of any associations or enterprises which we jointly participate in, or endure."⁴¹

People of contemporary generations, are less vulnerable than those of future generations, since we have the power to shape the future even though the equality of powers at any given time between existing generations might be comparable. This vulnerability of future generations is acknowledged in contractarian theory by what Rawls calls a "just savings principle."

3.2.3 Just Savings Principle

To deal with this conflict of equitability over generations, Rawls suggests that all generations should adopt a "just savings principle."⁴² This principle is intended to compensate future generations for the damage that contemporary generations do to the

environment. Rawls makes it clear that the purpose of the principle is not only to pass on wealth, but also to allow the opportunity for full realization. The idea of a just savings principle goes hand in hand with the concept of sustainable development. In order to meet the needs of the present, without compromising the ability of future generations to meet their own needs, we need to adopt a just savings principle. However, an obvious problem with putting sustainable development into practice is deciding how to distribute and divide finite resources with a growing population and an uncertain future.

Rawls does not tackle the problem of determining how much saving is fair. However, others have indicated that we should leave the earth to future generations in the state that we inherit it from previous generations, or at least that we should share common goods or primary goods in equal proportions with future generations.⁴³ A generation would want to inherit the common patrimony of the planet in as good a condition as it has been for any previous generations. This requires that each generation pass the planet on in no worse condition than they received it and that they provide equitable access to its resources and benefits. This might seem to be fair or just to future generations, but would people really be willing to agree to such a contract? To distribute primary goods in an equitable fashion between generations is difficult to put into practice, especially because, as I discussed above, our perceptions of needs and primary goods change over time.

I believe that contractarian theory must be able to provide us with more convincing arguments as to why we should agree to a contract. The “original position,” in which we do not know our physical and social circumstances, allowing for the adoption of a contract based on the just saving principle, is not a convincing or sufficient motivation for adopting such a principle. I believe that many people would find it hard to

look beyond their physical and social circumstances in deciding on policies. De-Shalit, who argues for a theory based on a transgenerational community, tries to provide us with the argument that our moral obligation should grow out of a concern for the community rather than an abstract original position.

3.2.4 Transgenerational Community

The theory of transgenerational community is that our moral obligation to future generations is derived from a sense of a community instead of an emphasis on a contract between generations.⁴⁴

A community usually means a group of interacting members. They might live or work together, have commercial relationships, experience the same nature or culture, etc. However, these kinds of communities only extend over a few generations. De-Shalit argues for a community that extends further, including several generations into the future. In this community, just as people think of the past as part of “themselves,” so should they also regard the future as part of “themselves.” One’s self-awareness is related to one’s community, both in the present and in the future. We have moral obligations to future generations, and since these obligations derive from the community that constitutes our “selves,” these obligations should be as strong as any other moral obligation shared by contemporary community members. Being a member of this transgenerational community is like being a member of any community or organization. All community members are given the opportunity to reflect on the community’s values and try either to alter them or leave the community and join another.

The theory of transgenerational community, that de-Shalit advocates is similar, in my opinion, to contractarian theory, since one could say that everyone who agrees on a contract is also a member of the transgenerational community. De-Shalit further shares the contractarian view that there is a close relationship between generations, which creates moral similarity. However, being a member of a community is more flexible than entering into a contract, which has its advantages as well as its disadvantages.

The main disadvantage, is that the transgenerational community cannot extend far into the future. Our moral obligations to future generations fade as the distance between generations increases. Another weakness is that the psychological idea of self-transcendence and the idea of moral similarity with future generations are simply traditional emotional posterity arguments, which are not, as I discussed in the introduction of this chapter, sufficient motivation for enacting and expressing moral obligations.

Even if the transgenerational community theory fails to provide us with arguments that show that we have moral obligations to future generations, it does provide us with the argument that we have moral obligations to communities. This is the advantage of transgenerational community theory. The transgenerational community relies upon us, contemporary people, to enact and adopt policies such as sustainable development. Transgenerational community theory allows us to motivate adoption of sustainable development out of a moral obligation to contemporary communities.

¹ Throughout this chapter I will use the definition of sustainable development outlined by the World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987), p. 8–9.

² Al Gore, *Earth in the Balance: Ecology and Human Spirit* (Boston: Houghton Mifflin, 1992).

³ John Passmore, “Conservation,” in *Responsibilities to Future Generations*, ed. Ernest Partridge (Buffalo: Prometheus Books, 1980), p. 54.

⁴ Avner de-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations* (London: Routledge, 1995), p. 31–4; Norman S. Care, “Future Generations, Policy, and the Motivation Problem,” *Environmental Ethics* 4 (1982), p. 206–7. Both de-Shalit and Care argue against Passmore’s “chain of love” in the context of moral obligations to future generations. De-Shalit agrees with Passmore that there is a close connection between generations which creates a moral obligation. However, he disagrees with Passmore’s reasoning and claims that it is wrong to base obligation on love or emotions. Care, on the other hand, finds love to be a strong motivation for expressing obligation in a particular setting, such as a relationship. However, Care argues that in the case of future generations, love is not placed in a particular setting, and the “facelessness” and “impersonality” of future people should stop us from using love as a motivation for policies.

⁵ De-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 11.

⁶ Utilitarianism is associated above all with Jeremy Bentham (1748–1832) and John Stuart Mill (1806–1873). Bentham articulated “the greatest happiness principle,” but it is Mill’s reflections upon this principle that define utilitarianism. Bentham’s most important work is the *Introduction to the Principles of Morals and Legislation* (1789), and Mill’s *Utilitarianism* (1861) is one of the best known of all philosophical texts. An excellent introduction to both Bentham’s and Mill’s work is Alan Ryan, *Utilitarianism and Other Essays: J. S. Mill and Jeremy Bentham* (London: Penguin Books, 1987).

⁷ Jeremy Bentham, quoted in *Why Posterity Matters: Environmental Policies and Future Generations*, de-Shalit, p. 67.

⁸ *Ibid.*, p. 67.

⁹ Those who argue for cost-benefit analysis believe it is a simple and useful tool in deciding which policy to endorse, see Alan B. Morrison, “Cost-Benefit Analysis: Tool For All Seasons?” *Legal Times* (1981). However, the use of cost-benefit analysis, especially when used within environmental policy, has been widely criticized: see Steven

Kelman, "Cost-Benefit Analysis: an Ethical Critique," *Regulation* (1981) and Mark Sagoff, *The Economy of the Earth: Philosophy, Law, and the Environment* (Cambridge: Cambridge University Press, 1988). Kellman argues that there are environmental decisions that might be right even though their benefits do not outweigh their costs. He also points out the difficulties involved in evaluating nature in terms of money, which is the value system predominantly used in cost-benefit analysis. To find out the value of non-marketed things, such as nature, the cost-benefit analysis would base the value on what people would be willing to pay for nature. People value nature differently, and the willingness to pay is not the same as the price a person would require for giving up something. Sagoff recognizes the importance of cost-benefit analysis when used narrowly to inform the public and its officials about the actual market cost associated with a specific project, such as increasing highway safety. However, in making wise decisions in public policy, the cost-benefit analysis loses whatever objectivity it might be claimed to have and becomes a tool of partisan politics. Therefore Sagoff sees cost-benefit analysis as antidemocratic and considers it to be a category mistake to use it in environmental policy.

¹⁰ Garret Hardin, "The Tragedy of the Commons," *Science* 162 (1968), p. 1243–8.

¹¹ Problems with both average utilitarianism and total utilitarianism are discussed by: Peter S. Wenz, "Ethics, Energy Policy, and Future Generations," *Environmental Ethics* 5 (1983), p. 197–200; de-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 69–73; and Jan Narveson, "Utilitarianism and New Generations," *Mind* 76 (1967), p. 62–72.

¹² De-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 71.

¹³ Jan Narveson, "Moral Problems of Population" in *Ethics and Population*, M. D. Bayles, ed. (Cambridge: Schenkman, 1976), p. 72.

¹⁴ Jan Narveson, in *Obligations to Future Generations*, R.I., Sikora and Brian Barry, eds. (Philadelphia: Temple University Press, 1978), p. 38–60; and Jan Narveson, "Moral Problems of Population," *Monist* 57 (1973), p. 62–86.

¹⁵ Wenz, "Ethics, Energy Policy, and Future Generations," p. 197.

¹⁶ Derek Parfit, "Energy Policy and Further Future: The Identity Problem," in *Energy and the Future*, Douglas MacLean and Peter G. Brown, eds. (Totowa: Rowman and Littlefield, 1983), p. 166–179.

¹⁷ De-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 74–5.

¹⁸ Ibid., p. 84.

¹⁹ I shall refrain from going into further detail about the distribution of resources between generations and the utilitarian use of discounting rates, since they are too complex for the scope of this thesis. For a discussion of discount rate, I recommend: Wilfred Beckerman, "'Sustainable Development': Is it a Useful Concept?" *Environmental Values* 3 (1994), p. 191–209; and James R. Kahn, *The Economic Approach to Environmental and Natural Resources*, 2nd edition (Fort Worth: The Dryden Press, 1997), p.110–111.

²⁰ Allen Tough, "What Future Generations Need From Us," *Future Generations Journal* 14 (1994), p. 15–22.

²¹ The World Commission on Environment and Development, *Our Common Future*, p. 49, 54–55.

²² Mark Sagoff, *The Economy of the Earth*, p. 61; and Martin H. Krieger, "What's Wrong with Plastic Tress?" *Science* 179 (1973), p. 446–454.

²³ Eric Katz, "Utilitarianism and Preservation," in *Nature as Subject* (London: Rowman & Littlefield, 1997), p. 3–12.

²⁴ Ibid., p. 10.

²⁵ Immanuel Kant, *Fundamental Principles of the Metaphysic of Morals* (Indianapolis: The Bobbs-Merrill Company, 1949), p. 31. This is a translation from Kant's *Grundlegung zur Metaphysik der Sitten*, originally published in 1785.

²⁶ Ibid., p. 31. Kant gives four versions of the categorical imperative, one of which is: "Act as if the maxim of thy action were to become by will a universal law of nature."

²⁷ Patrick Riley, *Will and Political Legitimacy: A Critical Exposition of Social Contract Theory in Hobbes, Locke, Rousseau, Kant, and Hegel* (Cambridge, MA: Harvard University Press, 1982).

²⁸ John Rawls, *A Theory of Justice* (Cambridge, MA: The Belknap Press of Harvard University Press, 1971).

²⁹ Ibid., p. 7.

³⁰ Ibid., p. 11.

³¹ Ibid., p. 136–142.

³² David Gauthier, *Morals by Agreement* (Oxford: Clarendon Press, 1986), p. 289.

³³ Ibid, p. 299.

³⁴ De-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 96.

³⁵ Ibid., p. 96.

³⁶ Ibid., p. 96.

³⁷ Ibid., p. 96–9.

³⁸ Rawls, *A Theory of Justice*, p. 127.

³⁹ This example is based on an example discussed by de-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 93–4.

⁴⁰ De-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 94.

⁴¹ Care, “Future Generations, Policy, and the Motivation Problem,” p. 209.

⁴² Rawls, *A Theory of Justice*, p. 284–293.

⁴³ David Gauthier, *Morals by Agreement*, p. 304.

⁴⁴ De-Shalit, *Why Posterity Matters: Environmental Policies and Future Generations*, p. 14.

CHAPTER 4

WE OWE SUSTAINABLE DEVELOPMENT TO COMMUNITIES

A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.

Aldo Leopold, *A Sand Country Almanac*, 1949.

Sustainable development is only retained because it is perceived to be legitimate.

However, its legitimacy ultimately rests on the perception that it is ethically justified. The problem is that sustainable development is a policy that has been developed without a clear ethical framework, and without such, it is not truly justified.

In the previous chapter, I discussed whether sustainable development, as described in the Bruntland report, could be justified according to the frameworks laid out in utilitarian and contractarian theories, especially if these moral philosophies could show that we have a moral obligation to future generations. My conclusion was that neither utilitarianism nor contractarian theory could show that we have such a moral obligation to future generations. Therefore, they cannot serve as ethical frameworks for sustainable development as it is defined in the Bruntland report.

In this chapter, I will discuss the possibilities for a nonanthropocentric ethical framework of sustainable development, but still in terms of the Bruntland report.

4.1 Moving Beyond Anthropocentrism

The ethical outlook of the Bruntland report is predominantly anthropocentric. It assumes that it is for the sake of humans that we should adopt a sustainable use of natural resources and the environment—that is, for the sake of people living now and in the future. According to this perspective, nature is ascribed instrumental value in relation to human needs and other human interests.

However, a nonanthropocentric perspective appears in one or two places in the Bruntland report, as exemplified by the following passage:

If needs are to be met on a sustainable basis, the Earth's natural resource base must be conserved and enhanced. Major changes in policies will be needed to cope with the industrial world's current high level of consumption, the increases in consumption needed to meet minimum standards in developing countries, and expected population growth. However, the case for the conservation of nature should not rest only with development goals. It is part of our moral obligation to other living beings and future generations.¹

This quote opens up the possibility of a nonanthropocentric ethical framework for sustainable development, since our moral obligation is extended to include other living beings. Gro Harlem Bruntland took this further in her opening speech at the 1988 World Conference on the Changing Atmosphere with a call for a “new holistic ethic in which economic growth and environmental protection go hand-in-hand around the world.”²

On June 5, 1997, marking the 25th anniversary of the Stockholm Declaration and the 5th anniversary of the Rio Declaration, the “Seoul Declaration on Environmental Ethics” was agreed on in Seoul, Korea.³ The Seoul Declaration was established as a framework of ideals, principles, and guidelines to sustain life on earth.

Earth's Whole-Life-System refers to a totality in which human beings, together with other life forms, natural elements and forces, coexist interdependently as a cohesive entity—the viability of the Whole-Life-System is essential to and dependent upon the very existence and integrity of all of its constituent components, and no species has an exclusive right to Earth's environment. All human decisions ought to be made and implemented on the premise that the existence of all life, including human life, can be sustained only when the integrity and wellbeing of the Whole-Life-System is preserved.⁴

It is difficult to tell if Gro Harlem Brundtland really meant that a “new holistic ethic” should be a nonanthropocentric ethic. However, the Seoul Declaration quite clearly states that sustainable development should be based on an ethical framework that views the world as an interconnected whole, in which the environment as “Earth's Whole-Life-System” has a moral standing of its own.

In the next section, I will discuss an ethical framework for sustainable development that embraces the Seoul Declaration and my interpretation of Brundtland's “new holistic ethic.” I will argue for a holistic ethical framework that is based on Aldo Leopold's community concept and his land ethic.

4.2 Aldo Leopold's Community and Land Ethic

While working as a government forester, Aldo Leopold embraced, in his early years, the resource conservation ethic developed by Gifford Pinchot, the first director of the U.S. Forest Service. According to Pinchot, the qualities found in nature could be considered as natural resources for humans.⁵ The goal of the proper use of natural resources, according to this conservation ethic, is to provide the greatest good for the greatest number of people for the longest possible time. However, Leopold rejected this kind of

utilitarianism later in his career since it viewed the land merely as a collection of individual goods that could be used by humans in many different ways. Leopold eventually came to the conclusion that the most important goal of land management is to maintain the health of natural ecosystems and ecological processes. Leopold's synthesis was published in his classic essay "The Land Ethic."⁶

In "The Land Ethic," a holistic view is presented, in which the good of ecosystems, or communities, as a whole is considered, rather than the satisfaction of human needs and preferences, which was the focus of the resource conservation ethic. Even if the primary goal of Leopold's land ethic is the good of the whole community, the individuals within the community are still important. Each individual has an inherent value, and it is the individuals that together make up the community. "In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land community to plain member and citizen of it."⁷ However, humans are not the only members of this more holistic community—animals, plants, and other natural entities are also included. The central ideas of Leopold's land ethic can be summarized by two major positions: (1) an ethical consideration of nonhumans, and (2) a recognition of an ecosystemic community.⁸

4.2.1 The Extension of Ethical Consideration to Nonhumans

One fundamental feature of Leopold's land ethic is the extension of direct ethical considerability from humans to nonhuman natural entities. As such, the land ethic creates obligations over and above human self-interest. The land should be valued for its own sake, regardless of the advantage or disadvantage to humans. The land, which includes all

species and natural entities, has an intrinsic value. The land ethic does not, however, accord to animals, plants, soil, etc. the same rights as humans. Humans have a moral obligation towards each other—a social morality that we do not have towards nonhumans. However, the land ethic extends our morality so that we have to take the land under moral consideration.

Leopold begins the Land Ethic with the story of Odysseus, who hanged a dozen female slaves after returning from the wars of Troy. Odysseus killed the slaves because he suspected they had engaged in misconduct while he was away, and he justified his action by arguing that the slaves were his property and therefore his to do with as he wished. Leopold drew an analogy between the status of the slaves in the story and the current status of the land. According to Leopold, we have to extend our moral community to include the land, just as we have in the past extended our moral community to include slaves. In Leopold's words: "The land ethic simply enlarges the boundaries of the community to include soils, water, plants, and animals, or collectively: the land."⁹

4.2.2 Ecosystemic Community

The concept of community that Leopold uses is much larger than the human-based community. At the time, Leopold was being influenced by new ideas from the field of ecology. The concept of a biological community is a basic ecological concept meaning a community of species that occupies a particular area, and their interactions. A biological community together with its associated physical environment is termed an "ecosystem."

In Leopold's community, humans are just members, or citizens, of the biological

community, and since the physical environment is also part of this community, it has alternatively been called an ecosystemic community.¹⁰

The primary goal of Leopold's land ethic is a condition that is good for the entire community, not just for the individuals within the community. "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."¹¹ As I mentioned above, even if the primary goal of the land ethic is the good of the whole community, the individuals within the community continue to be important. If the individuals are preserved as well as natural processes, then the beauty and stability is maintained within the community.

4.2.3 Leopold's Land Ethic as a Framework for Sustainable Development

The symbol of sustainable development, figure 1, presents sustainable development as the intersection of three community spheres that support humanity. In order to move in a more sustainable direction, we must find a balance between the economy, society (including global equity, ethnicity, cultures and religions), and the environment. To achieve this balance, each of these spheres must be valued both on its own and as an interdependent part of the whole.

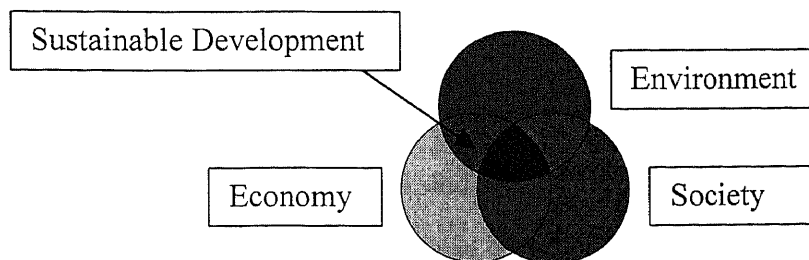


Figure 1. Sustainable development is achieved through a balance between the three spheres of the economy, society, and the environment.

If an anthropocentric ethical framework is used to justify sustainable development, then this balance is upset, since the environment is given an instrumental value, which is totally dependent on the other two spheres. In chapter three, I discussed the traditional moral philosophies of utilitarianism and contractarian theory. Here I will use both theories to show how anthropocentrism fails to support sustainable development.

Utilitarianism focuses on maximizing happiness. I have already shown that it is lacking in arguments that support moral obligation to future generations. Utilitarianism sees an obligation to make only those people happy who are living now, or at least to reduce their suffering. If it makes people happy to care about future people and the environment, then let's adopt policies that give people this satisfaction. We could consider sustainable development to be a policy that has been adopted because it makes people feel good from a utilitarian point of view. However, the balance between the economy, society, and the environment is only an imaginary balance, since peoples' needs and preferences can easily be manipulated or taught, as I discussed in the previous chapter. It is only when the environment is given intrinsic value that we can actually achieve a balance, because only then is each of the community spheres given a value of its own, in addition to their values as interdependent parts of the whole.

One might think it is possible to extend utilitarianism to include the environment, so that the goal would be to maximize the overall happiness of the three community spheres of the economy, society, and the environment. Philosopher Peter Singer advocates extending utilitarianism. However, he claims that utilitarianism can only be extended to include all sentient creatures, that is, all animals, humans included, that can suffer or feel pain.¹²

Contractarian theory, on the other hand, cannot expand its morality to include either animals nor the environment as a whole, since it is impossible to enter into a contract with them/it.¹³ Rawls's "just savings principle," a principle to save resources and environments for the future, is only relevant as long as there are sufficient grounds for a moral obligation to future generations. In chapter three, I discussed contractarian theory and its underlying assumptions. I concluded that these assumptions are either too vague or not applicable with respect to future generations. This undermines the motivation for adopting a just savings principle and therefore also undermines adopting sustainable development within a contractarian framework.

Leopold's land ethic, on the other hand, is a suitable ethical framework to support sustainable development, since its morality is extended to include the environment. It is our responsibility as humans to take soils, water, plants, and animals—or collectively, the land—under moral consideration. The goal of sustainable development, according to Leopold's land ethic, is the good of the whole community, but the parts that make up the community—i.e. the three community spheres of the economy, society, and the environment—should be respected both as individual parts as well as interconnected parts of the whole.

J. Baird Callicott is a philosopher who advocates an environmental ethic based on Leopold's land ethic.¹⁴ Callicott gives an example of a sustainable community in the South American Amazon rain forest that has this kind of balance between the community spheres.¹⁵ The Kayapo Indians live in this Amazon community, where they fish, hunt, gather and cultivate their land in a sustainable manner. Using complex cycles of agriculture the Kayapo Indians manage to cultivate a forest clearing for nearly ten years,

instead of merely two or three years, which is the usual among Euro-Brazilian peasants. After a decade, the forest clearing is not abandoned by the Kayapo Indians, rather the plots are used for planting first fast-growing, short-lived plants, such as banana, and then later long-lived trees like Brazil nut, coconut and oil palms. This kind of silviculture benefits many species, and the biodiversity is often enhanced in the area around the forest clearing. The way that the Kayapo Indians live and use the land is a good example of a community that balances the community spheres of the economy, society, and the environment. The Kayapo Indians use their land in an economically efficient manner, and the community is able to live in a traditional way, in accord with its indigenous culture as well as maintain the natural ecosystems and rich biodiversity where they live.

However, the challenge for sustainable development is in most of the other communities around the world, which do not practice the community balance described in the example of the Kayapo Indians. Perhaps the greatest imbalance lies between the people of the North and those of the South. Not only are the problems in the North and South different in many ways, as I discussed earlier in chapter two, but sustainable development, as well as other environmental policies, have a tendency to export Northern ideals of development and environmentalism. Philosopher Ramachandra Guha has written a “Third World critique” of what happens in the South when Northern environmentalism is introduced.¹⁶ In the North, people enjoy the material benefits of an expanding economy as well as the aesthetic benefits of nature in wilderness reserves. “The wilderness and civilization mutually coexist in an internally coherent whole.”¹⁷ However, in the South, industrial development of natural resources combined with the setting aside of wilderness areas has often created environmental disasters and human

tragedies. Guha further points out that in India, for example, the setting aside of nature reserves has resulted in a transfer of resources from poor to rich people. The poor had to leave their homelands when they were made part of the reserves, and only wealthy foreigners and the income-elite in India could afford to enjoy the wilderness experience.

Even if Leopold's land ethic is a Northern philosophy, it differs from much of Northern environmentalism since it addresses the inequity that exists between the North and South. Developing countries would be able, within Leopold's framework, to exploit natural resources, if sustainably managed, as long as the overall community would gain by it. Furthermore, the land ethic is a nonanthropocentric ethic, which, according to Eric Katz and Lauren Oechsli, does not tend to fuel the North-South conflict as much as an anthropocentric ethical framework, which could "evoke historical forces of economic imperialism."¹⁸ With a nonanthropocentric ethical framework, it is possible to motivate people regarding the preservation of, for example, the Amazon rain forest, regardless of the benefits or costs to human beings. However, Katz and Oechsli agree with Guha that any justifiable environmental policy must include solutions to the problems of inequity between the North and the South. "We [North] have outstanding debts, both to the nations of the Third World and to nature itself."¹⁹

4.3 Concluding Remarks

It is my position in this thesis that for sustainable development to be accepted and implemented a fundamental change in our values and beliefs is necessary. However, this change has to be realistic, pragmatic, and ethically justifiable in order to be achieved. It is the way we perceive our relationship with the natural world that first has to take a "giant

step.” We have to be willing to give the environment an intrinsic value, so that the three community spheres of economy, society, and environment can be valued in and of themselves and as an integrated parts of the whole. Only with a holistic ethical framework, such as one that is based on Leopold’s land ethic, can we truly justify sustainable development as a development strategy that is consistent with social and ecological realities. I believe that sustainable development based on this ethical framework has the potential of being a “giant step” for the progress of our civilization. While sustainable development is global in its vision, it works, at the same time, at various civic and geographic levels and attempts to include within its scope many different serious social and environmental problems.

The strength of Leopold’s land ethic as a model for sustainable development is that this framework is simple, pragmatic, and flexible. The balance between the community spheres in support of humanity illustrated in figure 1 captures the essence of a sustainable development based on Leopold’s land ethic.

This kind of sustainable development is pragmatic in the sense that many various groups with different views can work together on solving serious environmental and social problems in communities at different geographic and civic levels.²⁰ Callicott argues that Leopold’s “harmony-of-people-with-nature conservation” is uniting environmentalists and developers.²¹ On one hand, Leopold’s ideas absorb Pinchot’s resource conservation ethic, since Leopold endorses human economic use and development of the land. However, the human use of the land should be compatible with the land’s ecological health and integrity. To maintain this ecological health and integrity, sustainable management of natural resources is not enough. It has to be combined with

the preservation of wilderness areas as well. Thus, the land ethic also endorses the preservation movement led by John Muir.²² Callicott writes, "Leopold's harmony-of-people-with-nature philosophy of conservation transcends both Pinchot's and Muir's philosophies to an extent that goes beyond the conceptual distinction between people and nature that both Pinchot and Muir uncritically perpetuate."²³ This kind of pragmatism is far from being a relic from the past, it offers a dynamic approach to questions of human conduct, social values, scientific inquiry, aesthetics, and the environment.²⁴

The land ethic model is flexible in that its goal is to seek the best for the whole community, which is a balance between economical, social, and environmental goals. However, this might not always mean the different community spheres are accorded equal worth. The specific value of one of these spheres depends upon its relationship to the community as a whole. For example, the economic sphere might be stressed in developing countries, whereas the environmental sphere might be the focus in more industrialized communities.

Another advantage of using Leopold's land ethic as a framework for sustainable development is that it does not necessarily conflict with the Bruntland report's description of sustainable development, which itself points toward a nonanthropocentric ethical framework. Furthermore, the Bruntland report supports the notion that sustainable development is a balance between the economy, society, and the environment.²⁵ However, since the moral emphasis in the Bruntland report is that of obligation to future generations, I would like to propose an alternative definition which puts less emphasis on such an obligation and instead focuses on the moral obligation that contemporary people share towards their communities:

Humanity has the ability to make development sustainable—to ensure that it meets the long-term needs of communities. Our moral obligation is to preserve the integrity, stability, and beauty of these communities, which are founded on a balance between economy, society and environment.

¹ The World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987), p. 57, compare also p. 13.

² J. Ronald Engel, “Introduction: The Ethics of Sustainable Development,” in *Ethics of Environment & Development: Global Challenge, International Response*, J. Ronald Engel, and Joan Gibb Engel, eds. (Tuscon: The University of Arizona Press, 1990), p. 1.

³ United Nations, “Seoul Declaration on Environmental Ethics,” (New York: United Nations Department for Policy Coordination and Sustainable Development, 1997). Also available online: gopher://gopher.un.org/00/ga/docs/S-19/plenary/AS19-21.EN.

⁴ *Ibid.*, p. 2.

⁵ Pinchot’s resource conservation ethic is discussed in chapter one, especially in the first endnote. See also, Gifford Pinchot, *Breaking New Grounds* (New York: Harcourt Brace & Co., 1947).

⁶ Aldo Leopold, *A Sand Country Almanac, and Sketches Here and There* (New York: Oxford University Press, 1949).

⁷ *Ibid.*, p. 204.

⁸ Eric Katz, “Traditional Ethics of Natural Resources Management,” in *Nature as Subject: Human Obligation and Natural Community* (Lanhan: Rowman & Littlefield Publishers, Inc., 1997), p. 235.

⁹ Leopold, *A Sand Country Almanac*, p. 204.

¹⁰ The term “ecosystemic community” is used by Eric Katz, for instance, in his essay “Traditional Ethics of Natural Resources Management,” see footnote 8.

¹¹ Leopold, *A Sand Country Almanac*, p. 224–5.

¹² Peter Singer, *Animal Liberation* (New York: A New York Review Book, distributed by Random House, 1975).

¹³ Andrew Brennan argues that contractarian theory fails to be ecological, since non-humans cannot sign a contract. Andrew Brennan, *Thinking About Nature: An Investigation of Nature, Value and Ecology* (Athens: University of Georgia Press, 1988), p. 170–1, 178–82.

¹⁴ J. Baird Callicott is one of the leading philosophers in the field of environmental ethics claiming direct moral consideration of nature. Callicott's philosophy is to a large extent built on Aldo Leopold's land ethic. Important works by Callicott are: J. Baird Callicott, *In Defense of the Land Ethic: Essays in Environmental Philosophy* (Albany: SUNY Press, 1989); and J. Baird Callicott, "The Conceptual Foundations of Land Ethic," in *The Environmental Ethics & Policy Book*, Donald VanDeVeer and Christine Pierce, eds. 2nd edition (Belmont: Wadsworth Publishing Company, 1998), p. 184–198.

¹⁵ J. Baird Callicott, "Benevolent Symbiosis: The Philosophy of Conservation Reconstructed," in *Earth Summit Ethic: Toward a Reconstructive Postmodern Philosophy of Environmental Education*, J. Baird Callicott and Fernando J.R. da Rocha, eds. (Albany: SUNY Press, 1996), p. 152–3.

¹⁶ Ramachandra Guha, "Radical American Environmentalism: A Third World Critique," *Environmental Ethics* 11 (1989), p. 71–83.

¹⁷ *Ibid.*, p. 79.

¹⁸ Eric Katz and Lauren Oechsli, "Moving Beyond Anthropocentrism: Environmental Ethics, Development, and the Amazon," in *Nature as Subject: Human Obligation and Natural Community*, p. 149–162.

¹⁹ *Ibid.*, p. 160.

²⁰ Pragmatism is defined as a "method of philosophy in which the truth of a position is measured by its correspondence with experimental results and by its practical outcome. Thus pragmatists hold that the truth is modified as discoveries are made and that it is relative to time and place and purpose of inquiry." Paul Legasse, ed., *The Concise Columbia Encyclopedia*, 3rd edition (Boston: Houghtin Mifflin, 1995).

²¹ Callicott, "Benevolent Symbiosis: The Philosophy of Conservation Reconstructed," p. 150–2.

²² John Muir (1838–1914) is the father of the American wilderness preservation movement. He founded the Sierra Club (a NGO) and advocated for preserving wilderness areas in national parks. Muir's wilderness philosophy was founded on aesthetics. He saw

nature as a healing escape from urban industrial society. For a discussion about John Muir and his work see, John Opie, *Nature's Nation: An Environmental History of the United States*, (Fort Worth: Harcourt Brace College Publishers, 1998), p. 386–391.

²³ Callicott, “Benevolent Symbiosis: The Philosophy of Conservation Reconstructed,” p. 152.

²⁴ Pragmatism emerged as an American response to empiricism, and presented a re-conception of the nature of experience. American pragmatism was developed by the 19th-century American philosophers Charles S. Peirce, William James, John Dewey and George Herbert Mead, among others. For a comprehensive introduction to American pragmatism see, Sandra B. Rosenthal, et al, *Classical American Pragmatism*, (Champaign: University of Illinois Press, 1999). For an introduction to American pragmatism in the context of the environment see, Kelly A. Parker, “Pragmatism and Environmental Thought,” in *Environmental Pragmatism*, Andrew Light and Eric Katz, eds. (London and New York: Routledge, 1996).

²⁵ The World Commission on Environment and Development, *Our Common Future*. p. 65.

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