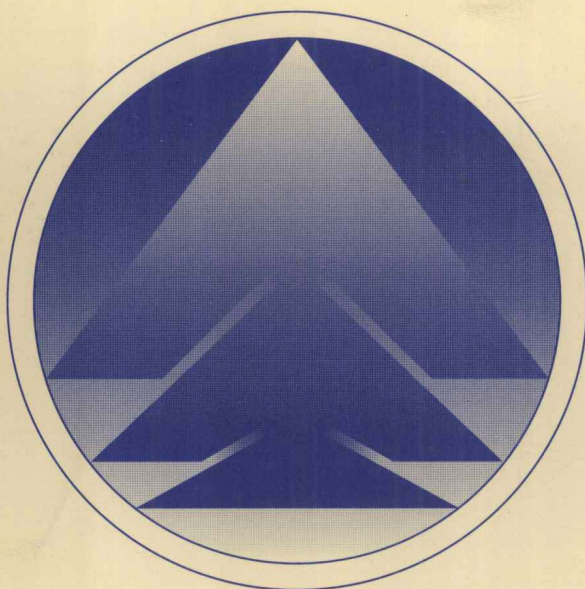


Caring for the Earth

A Strategy for Sustainable Living



Published in partnership by

IUCN - The World Conservation Union
UNEP - United Nations Environment Programme
WWF - World Wide Fund For Nature



Caring for the Earth

A Strategy for Sustainable Living

Published in partnership by

IUCN-The World Conservation Union
UNEP-United Nations Environment Programme
WWF-World Wide Fund For Nature

Gland, Switzerland, October 1991

Sponsors

CIDA — Canadian International Development Agency
Canadian Wildlife Federation
DANIDA — Danish International Development Assistance
FINNIDA — Finnish International Development Agency
International Centre for Ocean Development
Ministère de l'Environnement du Québec, Ministry of Environment of Quebec
The Johnson Foundation Inc.
Ministero degli Affari Esteri, Direzione Generale per la
Cooperazione allo Sviluppo, Italy
Netherlands Minister for Development Cooperation
NORAD — Royal Ministry of Foreign Affairs, Norway
SIDA — Swedish International Development Authority

Collaborators

Asian Development Bank
FAO-Food and Agriculture Organization of the United Nations
IIED-International Institute for Environment and Development
ILO-International Labour Office
ICHM-Istituto Superiore di Sanità
OAS-Secretariat: Organization of American States
United Nations Centre for Human Settlements — Habitat
UNDP-United Nations Development Programme
UNESCO-United Nations Educational, Scientific and Cultural Organization
UNFPA-United Nations Population Fund
The World Bank
WHO-World Health Organization
WMO-World Meteorological Organization
WRI-World Resources Institute

Second World Conservation Strategy Project

Project Director: David A. Munro
Senior Consultant and Writer: Robert Prescott-Allen
Production: Peter Hulm and Nikki Meith
Secretary: Margrith Kemp
Cover and graphics: Kurt Brunner/Art Center College of Design (Europe)

Final text edited by David A. Munro and Martin W. Holdgate
English ISBN 2-8317-0074-4; French ISBN 2-8317-0075-2;
Spanish ISBN 2-8317-0076-0; Earthscan edition 1-85383-126-3

Citation: IUCN/UNEP/WWF. (1991). *Caring for the Earth. A Strategy for Sustainable Living*.
Gland, Switzerland.

Contents

Foreword	1
User's guide to Caring for the Earth	3
PART I	Principles for Sustainable Living
Chapter 1	Building a sustainable society..... 8
Chapter 2	Respecting and caring for the community of life..... 13
Chapter 3	Improving the quality of human life..... 18
Chapter 4	Conserving the Earth's vitality and diversity..... 27
Chapter 5	Keeping within the Earth's carrying capacity..... 43
Chapter 6	Changing personal attitudes and practices..... 52
Chapter 7	Enabling communities to care for their own environments..... 57
Chapter 8	Providing a national framework for integrating development and conservation..... 64
Chapter 9	Creating a global alliance 77
PART II	Additional Actions for Sustainable Living
Chapter 10	Energy..... 89
Chapter 11	Business, industry and commerce..... 96
Chapter 12	Human settlements..... 104
Chapter 13	Farm and range lands..... 110
Chapter 14	Forest lands..... 122
Chapter 15	Fresh waters..... 137

Chapter 16	Oceans and coastal areas.....	150
PART III	Implementation and Follow-up	
Chapter 17	Implementing the Strategy.....	165
Annex 1	Net primary production pre-empted or destroyed by human activities.....	186
Annex 2	Classification of 160 countries by income.....	188
Annex 3	Average life expectancy at birth in 160 countries.....	190
Annex 4	Categories and management objectives of protected areas.....	192
Annex 5	Classification of countries by consumption of commercial energy per person and total fertility rate.....	194
Annex 6	Indicators of sustainability.....	198
Annex 7	Estimated cost of implementing major aspects of this Strategy....	202
Annex 8	Strategies for sustainability.....	204
Glossary.....		210
Notes and sources.....		213
Acknowledgements.....		223

Foreword

This strategy is founded on the conviction that people can alter their behaviour when they see that it will make things better, and can work together when they need to. It is aimed at change because values, economies and societies different from most that prevail today are needed if we are to care for the Earth and build a better quality of life for all.

Over a decade ago our organizations published the *World Conservation Strategy*. It stated a new message: that conservation is *not* the opposite of development. It emphasized that conservation includes both protection and the rational use of natural resources, and is essential if people are to achieve a life of dignity and if the welfare of present and future generations is to be assured. It drew attention to the almost limitless capacity of people both to build and destroy. It called for globally coordinated efforts to increase human well-being and halt the destruction of Earth's capacity to support life.

The World Conservation Strategy and its successors

The *World Conservation Strategy* was published in 1980. It emphasized that humanity, which exists as a part of nature, has no future unless nature and natural resources are conserved. It asserted that conservation cannot be achieved without development to alleviate the poverty and misery of hundreds of millions of people. Stressing the interdependence of conservation and development, the WCS first gave currency to the term "sustainable development".

Sustainable development depends on caring for the Earth. Unless the fertility and productivity of the planet are safeguarded, the human future is at risk. The *World Conservation Strategy* therefore emphasized three objectives:

- essential ecological processes and life-support systems must be maintained;
- genetic diversity must be preserved;
- any use of species or ecosystems must be sustainable.

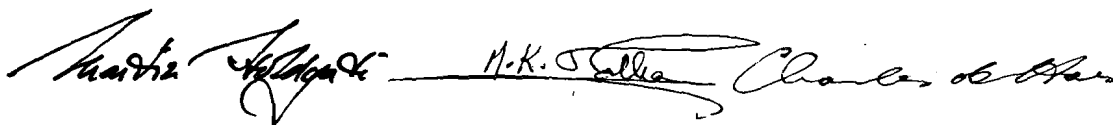
Since 1980, the *World Conservation Strategy* has been tested by the preparation of national and subnational conservation strategies in over 50 countries. In 1987, in its report *Our Common Future*, the World Commission on Environment and Development advanced our understanding of global interdependence and the relationship between economics and the environment. It contributed significantly to the growing recognition of the need for sustainable development and international equity. Also in 1987, governments adopted an Environmental Perspective to the Year 2000 and Beyond, which defined a broad framework to guide national action and international cooperation for environmentally sound development. In June 1992 they will meet in Rio de Janeiro to agree an agenda for environment and development in the 21st Century.

In the decade since 1980 the complexity of the problems we face has become clearer, and the need to act has become more pressing. In this new document we set out the broad principles, and an array of consequent actions, upon which we believe the future of our societies depends.

We accept that the actions called for in this Strategy will not be taken easily. Inertia is strong within human societies. Governments have to balance the gains of change against the inevitable costs of upheaval, and tend to develop policies through a succession of cautious steps. People cling to what they have, especially if they perceive that change threatens their personal power and wealth. It will be difficult for many communities to switch resources from war to peace, national to global advantage, or immediate gain to future welfare. But the conflicts, famine and strife that persist in an over-stressed world show how essential it is to seek a new approach. This reinforces our conviction that this Strategy must go ahead.

Caring for the Earth has been prepared through a wider process of consultation than was possible when we wrote the *World Conservation Strategy* a decade ago. It is intended to re-state current thinking about conservation and development in a way that will inform and encourage those who believe that people and nature are worth caring about and that their futures are intertwined. It is also intended to persuade people at all levels that they can do something, or help cause something to be done, that will lead to better care for the Earth.

The actions of our organizations and others will have to be reshaped if we are to ensure speedy and efficient implementation of this Strategy. We urge all governments, intergovernmental organizations, non-governmental groups, and individuals to help achieve that essential goal.



Martin W. Holdgate
Director General
IUCN - The World
Conservation Union

Mostafa K. Tolba
Executive Director
UNEP - United Nations
Environment Programme

Charles de Haes
Director General
WWF - World Wide Fund
For Nature

User's guide to Caring for the Earth

The aim of *Caring for the Earth* is to help improve the condition of the world's people, by defining two requirements. One is to secure a widespread and deeply-held commitment to a new ethic, the ethic for sustainable living, and to translate its principles into practice. The other is to integrate conservation and development: conservation to keep our actions within the Earth's capacity, and development to enable people everywhere to enjoy long, healthy and fulfilling lives. It extends and emphasizes the message of the World Conservation Strategy, published by the same organizations in 1980.

Caring for the Earth is intended to be used by those who shape policy and make decisions that affect the course of development and the condition of our environment. This is a much larger group than might at first appear. While it must include politicians, and executives in the public and private sectors at the national and international levels, it also includes leaders, business people and other citizens in communities and settlements everywhere. Caring for the Earth is everyone's business.

Structure of the text

The text has three parts. Part I, The Principles for Sustainable Living, begins with a chapter that defines principles to guide the way toward sustainable societies. The principles are: respect and care for the community of life, improve the quality of human life, conserve the Earth's vitality and diversity, minimize the depletion of non-renewable resources, keep within the Earth's carrying capacity, change personal attitudes and practices, enable communities to care for their own environments, provide a national framework for integrating development and conservation, and forge a global alliance. The following eight chapters recommend activities that will give substance to the principles.

Part II, Additional Actions for Sustainable Living, describes corresponding actions that are required in relation to the main areas of human activity and some of the major components of the biosphere. These chapters deal with energy; business, industry and commerce; human settlements; farm and range lands; forest lands; fresh waters; and oceans and coastal areas.

Each chapter begins with a brief survey of the issues with which it deals. This is followed by a series of recommended priority actions.

Part III, Implementation and Follow-up, consists of one chapter which proposes guidelines to help users adapt the strategy to their needs and capabilities and implement it, and sets out how the sponsors propose to follow up the Strategy and involve the community of users in its follow-up. It also contains a listing of all the recommended priority actions and suggested targets.

While the text has three parts and comprises 17 chapters, this should not obscure the reality that environmental, social and economic issues are joined in a network of sobering complexity. Thus no single chapter really stands alone, and while linkages are indicated by a system of cross references, it is an imperfect system and it would be useful to read at least Part I in full and preferably the whole text.

Gambling with survival or living sustainably?

This strategy is based on three points.

The first is simple and obvious. It is that we, the world's people, want to survive; but more than that, we want a satisfactory life for all of us and for our descendants. To achieve that goal we need a new kind of development, and we must learn to live differently.

The second is that we depend on the resources of the Earth to meet our basic and vital needs; if they are diminished or deteriorate we risk that our needs and those of our descendants will go unmet. Because we have been failing to care for the Earth properly and living unsustainably, that risk has become dangerously high. We are now gambling with the survival of civilization.

The third point is that we need not lose. We can eliminate the risk by ensuring that the benefits of development are distributed equitably, and by learning to care for the Earth and live sustainably.

Gambling with survival

Our civilizations are at risk because we are misusing natural resources and disturbing natural systems. We are pressing the Earth to the limits of its capacity. Since the industrial revolution, human numbers have grown eight-fold. Industrial production has risen by more than 100 times in the past 100 years.

This unprecedented increase in human numbers and activity has had major impacts on the environment.

The capacity of the Earth to support human and other life has been significantly diminished. In less than 200 years the planet has lost six million square kilometres of forest; the sediment load from soil erosion has risen three-fold in major river basins and by eight times in smaller, more intensively used ones; water withdrawals have grown from 100 to 3600 cubic kilometres a year.

Atmospheric systems have been disturbed, threatening the climate regime to which we and other forms of life have long been adapted. Since the mid-eighteenth century, human activities have more than doubled the methane in the atmosphere; increased the concentration of carbon dioxide by 27%; and significantly damaged the stratospheric ozone layer.

Pollution of air, soil, fresh waters and the oceans has become a serious and continuing threat to the health of humans and other species. Humanity is causing emissions of arsenic, mercury, nickel, and vanadium that are now double those from natural sources; zinc emissions are triple and those from cadmium and lead are respectively five and eighteen times higher than natural rates.

Most astonishing of all, the 5.3 billion people now on Earth are already using 40% of our most elemental resource — the energy from the sun made available by green plants on land.

Yet despite this vast takeover of nature, hundreds of millions of people struggle in poverty, lacking a tolerable quality of life. One person in five cannot get enough food properly to support an active working life. One quarter of the world's people are without safe drinking water. Every year millions of children die from malnutrition and preventable disease. Such conditions are grossly unjust. They also threaten the peace and stability of many countries now, and of the whole world eventually.

The resources of the Earth are overtaxed now, but without calamitous loss of life the

continued . . .

global human population cannot stabilize at less than 10 billion. It may reach 12 billion. How can this vast increase in human numbers be supported without doing irreversible damage to the Earth? Clearly not by going on living as we are now. Clearly not by a policy of business as usual.

Living sustainably

The change to living sustainably and caring for the Earth will be a major one for most people.

For a start we will need to understand and accept the consequences of being part of the great community of life and to become more conscious of the effects of our decisions on other societies, future generations and other species. We will need to perfect and promote an ethic for living sustainably.

Living sustainably must be a guiding principle for all the world's people, but it never will be while hundreds of millions live without enough of even the basic essentials of life. To make it possible for us all to think of the welfare of later generations and other species, we need a new kind of development that rapidly improves the quality of life for the disadvantaged.

The Earth has its limits; with the best technology imaginable, they are not infinitely expandable. To live within those limits and see that those who now have least can soon get more, two things will need to be done: population growth must stop everywhere, and the rich must stabilize, and in some cases, reduce, their consumption of resources. Ways exist to do this without reducing the real quality of life.

Sustainable living must be the new pattern for all levels: individuals, communities, nations and the world. To adopt the new pattern will require a significant change in the attitudes and practices of many people. We will need to ensure that education programmes reflect the importance of an ethic for living sustainably and that information campaigns are mounted to disseminate it.

Local communities are the focus for much that needs to be done in making the change to living sustainably, but there is little they can do if they lack the power to act. Subject to vital interests of the larger community, they must be enabled to manage the resources on which they depend and to have an effective voice in the decisions that affect them.

Progress towards sustainability has been slow because of the belief that conservation and development are opposite. Legal, social, economic and technical measures aimed at sustainability must be integrated in planning and action at all levels, particularly in national governments which have the main levers for strategic action.

Much of what needs to be done if we are properly to care for the Earth is of global significance and requires a global response. The framework exists for the cooperation, monitoring and management that are necessary, but programmes are poorly coordinated and rarely integrated. Funding is far from equal to the task. A new alliance of all the countries of the world is needed to effect needed reforms and improve the quality of life in the less developed areas of the world.

Part I

The Principles of a Sustainable Society

1. Building a sustainable society

This is a strategy for a kind of development that provides real improvements in the quality of human life and at the same time conserves the vitality and diversity of the Earth. The goal is development that meets these needs in a sustainable way. Today it may seem visionary, but it is attainable. To more and more people it also appears our only rational option.

Most current development fails because it meets human needs incompletely and often destroys or degrades its resource base (see pp. 4-5: Gambling with survival or living sustainably). We need development that is both people-centred, concentrating on improving the human condition, and conservation-based, maintaining the variety and productivity of nature. We have to stop talking about conservation and development as if they were in opposition, and recognize that they are essential parts of one indispensable process.

Caring for the Earth sets out a broad and explicit world strategy for the changes needed to build a sustainable society. We need such a strategy because:

- the most important issues we face are strongly interlinked, and therefore our actions must be mutually supportive and aimed at a common goal;
- the changes we must make in the ways in which we live and develop will be fundamental and far-reaching: they will demand our full dedication. The task will be easier if we work together;
- no single group can succeed by acting alone.

Any strategy has to be a guide rather than a prescription. It cannot be followed slavishly. Human societies differ greatly in culture, history, religion, politics, institutions and traditions. They also differ importantly in wealth, quality of life and environmental conditions, and in their awareness of the significance of these differences. Nor are these features fixed in time: change is continual. For these reasons, the principles and actions in this Strategy are described in broad terms. They are meant to be interpreted and adapted by each community. The world needs a variety of sustainable societies, achieved by many different paths.

Principles of a sustainable society

Living sustainably depends on accepting a duty to seek harmony with other people and with nature. The guiding rules are that people must share with each other and care for the Earth. Humanity must take no more from nature than nature can replenish. This in turn means adopting life-styles and development paths that respect and work within nature's limits. It can be done without rejecting the many benefits that modern technology has brought, provided that technology also works within those limits. This Strategy is about a new approach to the future, not a return to the past.

The principles of a sustainable society are interrelated and mutually supporting. Of those listed below, the first is the founding principle providing the ethical base for the others. The next four define the criteria that should be met, and the last four directions to be taken in working towards a sustainable society at the individual, local, national and international levels.

The principles are:

Respect and care for the community of life.

This principle reflects the duty of care for other people and other forms of life, now and in the future. It is an ethical principle. It means that development should not be at the expense of other groups or later generations. We should aim to share fairly the benefits and costs of resource use and environmental conservation among different communities and interest groups, among people who are poor and those who are affluent, and between our generation and those who will come after us.

All life on earth is part of one great interdependent system, which influences and depends on the non-living components of the planet — rocks, soils, waters and air. Disturbing one part of this biosphere can affect the whole. Just as human societies are interdependent and future generations are affected by our present actions, so the world of nature is increasingly dominated by our behaviour. It is a matter of ethics as well as practicality to manage development so that it does not threaten the survival of other species or eliminate their habitats. While our survival depends on the use of other species, we need not and should not use them cruelly or wastefully.

Improve the quality of human life.

The real aim of development is to improve the quality of human life. It is a process that enables human beings to realize their potential, build self-confidence and lead lives of dignity and fulfilment. Economic growth is an important component of development, but it cannot be a goal in itself, nor can it go on indefinitely. Although people differ in the goals that they would set for development, some are virtually universal. These include a long and healthy life, education, access to the resources needed for a decent standard of living, political freedom, guaranteed human rights, and freedom from violence. Development is real only if it makes our lives better in all these respects.

Conserve the Earth's vitality and diversity.

Conservation-based development needs to include deliberate action to protect the structure, functions and diversity of the world's natural systems, on which our species utterly depends. This requires us to:

Conserve life-support systems. These are the ecological processes that keep the planet fit for life. They shape climate, cleanse air and water, regulate water flow, recycle essential elements, create and regenerate soil, and enable ecosystems to renew themselves;

Conserve biodiversity. This includes not only all species of plants, animals and other organisms, but also the range of genetic stocks within each species, and the variety of ecosystems;

Ensure that uses of renewable resources are sustainable. Renewable resources include soil, wild and domesticated organisms, forests, rangelands, cultivated land, and the marine and freshwater ecosystems that support fisheries. A use is sustainable if it is within the resource's capacity for renewal.

Box 1. Sustainability: a question of definition

Caring for the Earth uses the word “sustainable” in several combinations, such as “sustainable development”, “sustainable economy”, “sustainable society”, and “sustainable use”. It is important for an understanding of the Strategy to know what we mean by these terms.

If an activity is sustainable, for all practical purposes it can continue forever.

When people define an activity as sustainable, however, it is on the basis of what they know at the time. There can be no long-term guarantee of sustainability, because many factors remain unknown or unpredictable. The moral we draw from this is: be conservative in actions that could affect the environment, study the effects of such actions carefully, and learn from your mistakes quickly.

The World Commission on Environment and Development (WCED) defined “sustainable development” as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

The term has been criticized as ambiguous and open to a wide range of interpretations, many of which are contradictory. The confusion has been caused because “sustainable development”, “sustainable growth” and “sustainable use” have been used interchangeably, as if their meanings were the same. They are not. “Sustainable growth” is a contradiction in terms: nothing physical can grow indefinitely. “Sustainable use” is applicable only to renewable resources: it means using them at rates within their capacity for renewal.

“Sustainable development” is used in this Strategy to mean: improving the quality of human life while living within the carrying capacity of supporting ecosystems.

A “sustainable economy” is the product of sustainable development. It maintains its natural resource base. It can continue to develop by adapting, and through improvements in knowledge, organization, technical efficiency, and wisdom.

A “sustainable society” lives by the nine principles outlined in this chapter.

Minimize the depletion of non-renewable resources.

Minerals, oil, gas and coal are effectively non-renewable. Unlike plants, fish or soil, they cannot be used sustainably. However, their “life” can be extended, for example, by recycling, by using less of a resource to make a particular product, or by switching to renewable substitutes where possible. Widespread adoption of such practices is essential if the Earth is to sustain billions more people in future, and give everyone a life of decent quality.

Keep within the Earth’s carrying capacity.

Precise definition is difficult, but there are finite limits to the “carrying capacity” of the Earth’s ecosystems — to the impacts that they and the biosphere as a whole can withstand without dangerous deterioration. The limits vary from region to region, and the impacts depend on how many people there are and how much food, water, energy and raw materials each uses and wastes. A few people consuming a lot can cause as much damage as a lot of people consuming a little. Policies that bring human numbers and life-styles into balance with nature’s capacity must be developed alongside technologies that enhance that capacity by careful management.

Change personal attitudes and practices.

To adopt the ethic for living sustainably, people must re-examine their values and alter their behaviour. Society must promote values that support the new ethic and discourage those that are incompatible with a sustainable way of life. Information must be disseminated through formal and informal educational systems so that the policies and actions needed for the survival and well-being of the world's societies can be explained and understood.

Enable communities to care for their own environments.

Most of the creative and productive activities of individuals or groups take place in communities. Communities and citizens' groups provide the most readily accessible means for people to take socially valuable action as well as to express their concerns. Properly mandated, empowered and informed, communities can contribute to decisions that affect them and play an indispensable part in creating a securely-based sustainable society.

Provide a national framework for integrating development and conservation.

All societies need a foundation of information and knowledge, a framework of law and institutions, and consistent economic and social policies if they are to advance in a rational way. A national programme for achieving sustainability should involve all interests, and seek to identify and prevent problems before they arise. It must be adaptive, continually re-directing its course in response to experience and to new needs. National measures should:

- treat each region as an integrated system, taking account of the interactions among land, air, water, organisms and human activities;
- recognize that each system influences and is influenced by larger and smaller systems — whether ecological, economic, social or political;
- consider people as the central element in the system, evaluating the social, economic, technical and political factors that affect how they use natural resources;
- relate economic policy to environmental carrying capacity;
- increase the benefits obtained from each stock of resources;
- promote technologies that use resources more efficiently;
- ensure that resource users pay the full social costs of the benefits they enjoy.

Create a global alliance.

No nation today is self-sufficient. If we are to achieve global sustainability a firm alliance must be established among all countries. The levels of development in the world are unequal, and the lower-income* countries must be helped to develop sustainably and protect their environments. Global and shared resources, especially the atmosphere, oceans and shared

* With the adoption of broader concepts of development, reflecting social and ecological as well as economic conditions, conventional classifications of countries as "developed" or "developing" have become less useful. Throughout this document, therefore, countries are grouped by income (lower-income, upper-income, etc.) following a classification set out in Annex 2.

ecosystems, can be managed only on the basis of common purpose and resolve. The ethic of care applies at the international as well as the national and individual levels. All nations stand to gain from worldwide sustainability — and are threatened if we fail to attain it.

Action 1.1. Develop new strategies for sustainable living, based on the nine principles

The nine principles outlined in this chapter are far from new. They reflect values and duties — especially the duty of care for other people, and of respect and care for nature — that many of the world's cultures and religions have recognized for centuries. The principles also reflect statements that have appeared in many reports about the need for equity, for sustainable development, and for conservation of nature in its own right and as the essential support for human life.

The need now is to build practical strategies for sustainable living around these principles. Governments should review and adjust their national development plans and conservation strategies in the light of the imperative for sustainability. They should cooperate, directly and within international organizations, to ensure that sustainability is achieved at the global level. (See Actions 8.2, 9.2, 9.4, 17.7 and 17.8).