Conservation by Design

A Framework for Mission Success

The Nature Conservancy®

Saving the Last Great Places

A Call to Action

We stand today on a momentous threshold.

Behind us lies a century of awakening conservation sensibility, and a half-century of conservation action on the part of The Nature Conservancy. Before us, built on this foundation, lies the opportunity to protect entire ecological systems, thereby ensuring the viability of the natural diversity they support. Yet, daily, the opportunity narrows.

As we have come to understand more of the Earth's ecological workings, the more clearly we see what we risk losing. But this understanding has given us the means to create comprehensive, practicable plans to conserve the best of what remains.

Expanding knowledge in conservation biology and 50 years' experience in the business of conservation led us to create "Conservation by Design," the framework by which we intend to fulfill our mission. In 1995, our late president John Sawhill challenged us to devise such a strategic vision. I was privileged to lead that team of staff who developed "Conservation by Design;" an evolving document, this is its third printing.

"Conservation by Design" sets forth our vision and call to action. It directs us to systematically identify the array of places around the globe that embrace the full spectrum of the Earth's natural diversity; to develop the most effective strategies to achieve tangible, lasting results; and to work collaboratively to catalyze action at a scale great enough to ensure the survival of entire ecosystems.

On this threshold, we stand together with many others in a mutual commitment to protect the quality of life we derive from the immeasurable value of the world's extraordinary biological diversity.

I'm filled with the abiding conviction that we can leave no more enduring and important legacy than the preservation of our natural heritage. For in the end, this generation will be defined not only by what we create, but by what we refuse to destroy. We are all conservationists, united in pursuit of the dream that we can leave the world an even better place than we enjoyed.

Steven J. McCormick
President and Chief Executive Officer
The Nature Conservancy
April 2001

Cover: Noel Kempff Mercado National Park, Bolivia

Conservation by Design

With the accelerating loss of the Earth's biological heritage and the impairment of critical ecological processes that support life on the planet, the mission and work of The Nature Conservancy could not be more important or compelling.

This framework translates the Conservancy's broadly stated mission into a unifying articulation of common purpose and direction — a compass bearing to align the organization in taking the most effective conservation action to achieve tangible, lasting results. It sets forth:

- A clear, concise **vision** for accomplishing mission success;
- An ambitious **goal** for the year 2010 to make the necessary progress toward fulfilling this vision;
- An overview of our integrated **approach** for achieving this goal;
- An outline of the **measures** we use to monitor our organizational progress;
- A description of the unique **values** that characterize The Nature Conservancy's conservation work.

We call this framework for mission success **Conservation by Design**.

Through this approach, we harness the innovative and enterprising spirit that is the hallmark of the Conservancy. With each of our local, state and country programs acting on a shared understanding of what constitutes success, we work as One Conservancy while still taking full advantage of our decentralized organizational structure.

It is to this framework, therefore, that we hold ourselves individually and collectively accountable.

Rock Islands, Republic of Palau

Mission Statement

The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

Conservation Vision

The Nature Conservancy's vision is to conserve portfolios of functional conservation areas within and across ecoregions. Through this portfolio approach, we will work with partners to conserve a full array of ecological systems and viable native species.

Conservation Goal for 2010

By 2010, The Nature Conservancy and its partners will take direct action to conserve 600 functional landscapes — 500 in the United States and 100 in 35 countries abroad. The Conservancy also will deploy high-leverage strategies to ensure the conservation of at least 2,500 other functional conservation areas — 2,000 in the United States and 500 in other countries.

Core Concepts

Ecoregions, not political boundaries, provide a framework for capturing ecological and genetic variation in biodiversity across a full range of environmental gradients.

An **ecological system** is a group of interconnected natural communities on land or in water that are linked together by ecological processes. Primary emphasis in portfolio design will be placed on conserving the highest quality examples of ecological systems and second, on viable populations of native species not captured within these ecological systems. Portfolio design and implementation is a dynamic and iterative process that will be periodically updated and refined.

Functional conservation areas conserve the focal species, natural communities, and ecological systems and the ecological processes necessary to sustain them over the long term. Conservation areas range along a continuum of complexity and scale from **landscapes** that seek to conserve a large number of conservation targets at multiple spatial scales, to **sites** that seek to conserve a small number of conservation targets. To conserve wide-ranging and migratory species, conservation areas within and across portfolios should be designed as integrated networks.

Functional landscapes represent particularly effective and efficient geographical units for conserving biodiversity. Large, complex, multi-scale and relatively intact, functional landscapes provide an ecological stage on which biodiversity can respond to human or natural disturbances.

Conservation Approach

To fulfill its long-term vision and achieve its goals, The Nature Conservancy employs an integrated conservation process comprised of four fundamental components:

- Setting **priorities** through ecoregional planning;
- Developing **strategies** to conserve both single and multiple conservation areas;
- Taking direct conservation **action**; and
- **Measuring** conservation success.

Setting Priorities

As the first step in its conservation process, the Conservancy designs portfolios of conservation areas within and across ecoregions.

These ecoregional portfolios represent the full distribution and diversity of native species, natural communities and ecological systems within each ecoregion.

Designing ecoregion-based portfolios is a complex, iterative process built around five steps:

- Identifying the species, communities and ecological systems within ecoregion;
- Setting specific goals for the number and distribution of these conservation targets to be captured in the portfolio;
- Assembling information and relevant data on the location and quality of conservation targets;
- Designing a network of conservation areas that most effectively meets the goals;
- Selecting the highest priority conservation areas in the portfolio for Conservancy action.

Developing Strategies

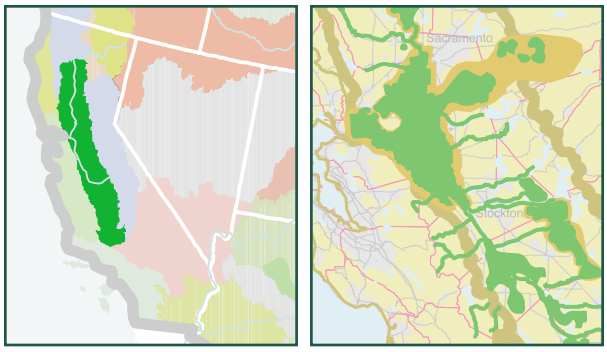
To protect the greatest possible number of conservation areas within portfolios, The Nature Conservancy develops and implements conservation strategies at two basic geographic scales.

Single-Area Strategies

For all individual conservation areas in which the Conservancy invests resources directly or through partnerships, we employ the **5-S Framework** of site conservation planning. This methodology provides local Conservancy programs and partners with a well-tested, science-based process for developing effective strategies that achieve tangible results. The **5-S** approach focuses on the following components:

- **Systems**: The key conservation targets and supporting ecological processes;
- **Stresses**: The most serious types of destruction or degradation affecting the conservation targets or ecological processes;
- **Sources of stress**: The causes or agents of destruction or degradation;
- **Strategies**: The full array of actions necessary to abate the threats or enhance the viability of the conservation targets;
- **Success measures**: The monitoring process for assessing progress in abating threats and improving the biodiversity health of a conservation area.

Many Conservancy programs also conduct a comprehensive situation analysis of local economic, political and social conditions as part of the **5-S** planning process.



Multi-Area Strategies

Every ecoregional plan identifies a portfolio of conservation areas that greatly exceeds the Conservancy's capacity to protect alone. The Conservancy's mission therefore compels the organization to link its work at the local level with strategies explicitly designed to affect the conservation of multiple areas.

To develop and execute such strategies, the Conservancy first:

- Identifies stresses and sources of stress that affect multiple conservation areas within a given portfolio, among several portfolios or across geopolitical boundaries;
- Identifies the institutions and mechanisms that can directly influence the conservation management or outcome in these areas;
- Crafts and implements strategies, in conjunction with partners, that are designed specifically to abate threats at multiple areas;
- Holds itself accountable by measuring the impact of these strategies across multiple conservation areas.

St. John River, Maine

Taking Action

In keeping with the Conservancy's commitment to results, the bulk of our resources — human and financial — are focused on implementing well-conceived conservation strategies. As a result, the Conservancy's conservation actions span the spectrum from fee acquisition of land and waters to environmental education; from public policy to joint land — and water-management agreements, with specific actions varying according to the unique needs of the biodiversity and ecological processes we seek to conserve.

Included in this mix are strategies that affect multiple areas, such as compatible economic development efforts; the Conservancy's climate-change initiative; our work with the Department of Defense to develop conservation plans for military bases; our work with the Army Corps of Engineers to modify dam operations; and our efforts to establish national trust funds for conservation in Panama and Papua New Guinea.

At functional landscapes and other conservation areas, the Conservancy often employs community-based conservation as its central strategy. By combining an on-site local staff presence with the common strategic approach of site conservation planning and adequate resources, community-based conservation represents a proven means of achieving enduring, tangible conservation results.

Measuring Success

For purposes of assessing progress toward our mission, The Nature Conservancy defines conservation success as the long-term abatement of critical threats and the sustained maintenance or enhancement of biodiversity health. The Conservancy therefore regularly measures both the level of threat and the biodiversity health at areas identified for Conservancy action in ecoregional portfolios.

To determine biodiversity health, the Conservancy evaluates the size, condition and landscape context of the focal conservation targets in an area and then assigns a designation of very good, good, fair or poor. These assessments are reevaluated every three to five years. To measure threat abatement, the Conservancy analyzes the stresses to the conservation targets at a particular conservation area and the sources of those stresses, with the resulting threat ranked as very high, high, medium or low. The level of threat is reevaluated every two to three years.

Collectively, these measures seek to quantify our conservation impact — the direct contribution of the Conservancy and our partners to conserving biodiversity. To hold the organization accountable for results, the Conservancy aspires to measure success across the full portfolios not just the areas identified as priorities for Conservancy action.

Schenob Brook Wetlands, Berkshires, Massachusetts

Measures of Organizational Performance

In addition to assessing its conservation impact, the Conservancy measures its conservation activity and conservation capacity. These organization-wide measures reflect our progress in implementing key strategies and programmatic initiatives, as well as gauging the Conservancy's ability to generate the resources it needs to achieve overall success.

- Number of landscapes where the Conservancy is directly engaged;
- Number of other areas where the Conservancy is working to ensure conservation;
- Membership;
- Private fund-raising growth;
- Public dollars secured for conservation areas.

Organizational Values

As indispensable to The Nature Conservancy's success as our unifying mission, vision, goals and measures are our unique **values** — the distinguishing attributes that characterize how we conduct ourselves in our drive for tangible, lasting results. These attributes are not mere platitudes but deeply held convictions universally manifested by all who represent The Nature Conservancy.

- **Integrity Beyond Reproach**: We hold paramount the trust and responsibilities placed in us by our donors, members, colleagues, partners and the public.
- **Continuity of Purpose**: We look to our mission to provide focus and guidance for everything we do, from our conservation initiatives to the allocation of our resources. We work in a cooperative, non-confrontational manner, emphasizing collaborative efforts, and drawing on the best available conservation science.
- **Commitment to People**: We respect the needs of local communities by developing ways to conserve biological diversity while at the same time enabling humans to live productively and sustainably on the landscape. We know that lasting conservation success requires the active involvement of individuals from diverse backgrounds and beliefs, and we value the unique contributions that each person can make to our cause.

- **Effective Partnerships**: We are committed to forging public and private partnerships that combine diverse strengths, skills and resources.
- **Innovation and Excellence**: We are strategically entrepreneurial in the pursuit of excellence, encouraging original thought and its application, and willing to take risks based on sound business judgment.
- **One Conservancy**: We act as One Conservancy, with each program assisting other programs in reaching their full potential, thereby ensuring the success of the overall organization.
- **Commitment to the Future**: We commit ourselves, individually and collectively, to leaving future generations a biologically rich world.

San Pedro River, Arizona

Conclusion

The task of conserving biological diversity represents an extraordinary challenge. As a succinct articulation of organizational direction and strategic alignment, this document seeks to foster a sense of continuity and common purpose throughout our enterprise.

We move forward eagerly and with confidence — inspired by the overarching importance of our mission; propelled by our past successes; distinguished by our values and unique organizational spirit; and guided by the direction set by this framework. For in the end, our society will be defined not only by what we create, but by what we refuse to destroy.

Further Reference

This document integrates the work of a number of previous Conservancy documents and strategic planning efforts. For further elucidation or amplification of many of the concepts discussed above, readers should consult the publications listed below:

- "Conservation by Design: A Framework for Mission Success" (1996)
- "Implementing Conservation by Design: A Strategic Focus for the Next 10 Years" (1998)
- "The Five-S Framework for Site Conservation: A Practitioner's Handbook for Site Conservation Planning and Measuring Conservation Success" (2000)
- "Designing a Geography of Hope, Second Edition" (2000)
- "Functional Landscapes and the Conservation of Biodiversity" (2000)
- "Precious Heritage: The Status of Biodiversity in the United States" (2000)

Glossary of Terms

Acceptable ranges of variability: The characteristics of species, communities, and ecological systems vary over time in response to biotic interactions and environmental processes. Critical biotic and environmental conditions and processes must be restored or maintained within acceptable ranges of variability to ensure that our conservation targets do not change so much that they become nonviable over the long term.

Biodiversity: The full range of natural variety and variability within and among living organisms, and the ecological and environmental complexes in which they occur. It encompasses multiple levels of organization, including genes, species, communities, and ecological systems or ecosystems.

Conservation targets: Specific components of biodiversity identified by The Nature Conservancy and used to design ecoregional portfolios and develop and prioritize conservation strategies. Currently, the conservancy's conservation targets consist of ecological systems, natural communities and species.

Conserve: For the Conservancy's purposes, a conservation area can be deemed to be conserved or functional when its biodiversity health score has achieved a rank of "good" or "very good" and its threat status is "low" or "medium."

Ecological systems: Ecological systems are dynamic assemblages of native plant and/or animal communities that (1) occur together on the landscape or in the water; and (2) are tied together by similar ecological processes (e.g., fire, hydrology), underlying environmental features (e.g., soils, geology) or environmental gradients (e.g., elevation).

Ecoregions: Relatively large geographic areas of land and water delineated by climate, vegetation, geology and other ecological and environmental patterns.

Functional conservation area: The geographic area needed to maintain the conservation targets and supporting ecological processes within acceptable ranges of variability over the long term. Functional landscapes are often intended to conserve "all" biodiversity in an area; are typically large (i.e., >20,000 acres); and usually include both aquatic and terrestrial targets. Functional sites are intended to conserve a small set of conservation targets, usually imperiled or endemic species with limited spatial requirements.

Network: A system of interconnected conservation areas that commonly transcend ecoregional boundaries to conserve wide-ranging and migratory species.

Genetic and ecological variation: Genetic variation, or genetic diversity, is a measure of the differences in the genetic makeup of individuals, populations or species. Ecological variation is a measure of differences in the collective response of a species, community type, or ecological system to different environmental conditions.

Natural communities: Assemblages of species that re-occur under similar habitat conditions and environmental regimes.

Portfolio: The suite of conservation areas within an ecoregion selected to represent and conserve the conservation targets and their genetic and ecological variation.

Viability: Viability indicates the ability of a conservation target to persist for many generations or over long time periods.

In memory of John C. Sawhill
President and Chief Executive Officer
The Nature Conservancy
1990–2000

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