

# CONSERVATION PRINCIPLES FOR COFFEE PRODUCTION

FINAL VERSION

CONSERVATION INTERNATIONAL  
CONSUMER'S CHOICE COUNCIL  
RAINFOREST ALLIANCE  
SMITHSONIAN MIGRATORY BIRD CENTER  
SUMMIT FOUNDATION

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Coffee farming is an economic mainstay in the world economy. It is the primary source of income for millions of farmers across the tropical world and even for entire countries, where coffee provides the primary source of foreign exchange earnings. Coffee production also overlaps with many of the biologically richest regions of the world and can contribute both to their endangerment and to their protection. Given the right conditions, coffee production can be both economically and ecologically beneficial.

However, the world coffee industry is in crisis. Current prices are lower than the costs of production in many parts of the world, and there is little expectation that this will change in the short term. Coffee farmers the world over, most of whom are small-scale producers already living in poor conditions, are experiencing a substantial decline in their meager incomes. In some countries, extensive areas of tropical forest are being converted to coffee fields, compounding low quality production, global over-production and biodiversity loss. Chronic low prices undermine the capacity of farmers to produce a quality product and maintain its value, to protect their farms and natural resources, and to sustain their very livelihoods. This situation has the potential to become a social and environmental disaster on a world scale.

In the last two decades, a sustainable coffee movement has emerged that tries to create alternative market opportunities that pay farmers decent prices, provide incentives for organic production and reward farmers for practicing good stewardship of their natural resources. While this movement has made great strides in increasing awareness of these issues among policy makers, businesses, producers and consumers alike, there remains an enormous gap between what a market for sustainable coffee could provide for the world and the present conditions of the world coffee market. The progress that has been achieved by the sustainable coffee movement could be undone by the continued depression of prices paid to producers.

In order to help strengthen the sustainable coffee movement, and to promote greater clarity and opportunities for collaboration around the specific issue of conservation in the world coffee industry, the Consumer's Choice Council has coordinated the development of a set of Conservation Principles for Coffee Production. Patrick Mallet of Falls Brook Centre crafted this document in collaboration with Conservation International, Rainforest Alliance, and the Smithsonian Migratory Bird Center, with funding from the Summit Foundation.

These principles were developed with several goals in mind:

- **Align coffee production with biodiversity conservation:** A clear and concise set of Conservation Principles for Coffee Production can help guide strategies to

improve coffee production and conserve biodiversity. The Principles can also help identify where additional scientific information and technical solutions are needed to address the environmental complexities of coffee production and trade flows around the world.

- **Create tools and incentives that promote and reward good stewardship in the coffee industry:** The Conservation Principles for Coffee Production can serve as a valuable reference point for producers, importers, exporters, roasters and consumers who are working to incorporate conservation into management and purchasing decisions. They can strengthen the market profile for responsible coffee through incorporation into existing certification programs, and so create market opportunities that acknowledge and reward good stewardship.
- **Strengthen collaboration and facilitate local standards development:** The Conservation Principles for Coffee Production provide a conservation baseline for coffee production around which businesses, certification agencies, producer associations, development agencies and other interested parties may collaborate to address conservation issues more efficiently and with greater effect. They can help strengthen existing conservation initiatives and provide a catalyst for new initiatives, while providing a foundation for developing conservation standards tailored to local environments.
- **Inform planning and monitoring:** The Principles can help guide ecological landscape planning, environmental impact assessment, farm management plans, monitoring and record keeping, as well as other tools essential for implementing and verifying agro-ecological improvements in worldwide coffee production. All applications of the Principles should strive for transparency, accountability and maintain rigorous documentation to substantiate claims of conservation benefit.
- **Influence public policy and financing:** The Principles can influence the development of pro-conservation policies, programs and extension services by national governments and international institutions. Priorities within conservation policy should include effective protected area programs and environmental regulation, as well as avoiding incentives for conversion of coffee plantations to full sun cultivation or for expansion of coffee production into new areas at the expense of natural forest.

## *CONSERVATION PRINCIPLES FOR COFFEE PRODUCTION*

The following Conservation Principles for Coffee Production apply to farms and processing facilities in all coffee-growing regions of the world and should be the foundation of any conservation-based certification program. In addition, they can be used to guide the development of industry sourcing guidelines and codes of conduct, changes in government or financial sector policy to encourage sustainable agriculture, and modernization of technical assistance programs. It is also recognized that coffee quality is fundamental to market value. A complementary emphasis is required through all stages of the coffee value chain to ensure delivery to the consumer of a high quality product.

In many cases, these Principles require collaboration between producers, communities and local and national governments. Specific applications of these Conservation Principles will vary by region in accordance with their climates, ecological variables, traditions and cultures. However, programs that aim to improve coffee production systems must at least address and monitor progress in accordance with the following Conservation Principles to ensure that there is a real conservation benefit.

### *1. SUSTAINABLE LIVELIHOODS:* Coffee production systems and commercialization should improve the social and economic livelihoods of producers and provide economic benefits to local communities.

- Coffee producers are empowered to access markets and to develop long-term trading relationships with buyers.
- Equitable prices for producers are a primary consideration in all marketing agreements.
- Coffee producers are encouraged to diversify their sources of income through the development of on-farm and/or community-based alternatives to coffee production.
- Coffee producers should apply **long-term** management plans that guide farm production activities and that are periodically revised to address the environmental and social impacts of production, as determined by ongoing monitoring and audits.
- Communities are directly involved, from the beginning, in a participatory process of management planning, monitoring and implementation.
- Co-operatives work to ensure that the basic rights and needs of their members are met and are committed to continual improvement over time.
- Coffee farms that employ workers conform to **local laws** and applicable international conventions related to workers' rights and benefits and are in a process of continual improvement over time.
  - Wages and benefits meet or exceed the minimum required under local and national laws.

- Working conditions meet or exceed applicable laws and regulations related to health and safety of workers.
- Workers and their families, including seasonal workers, are provided with access to potable water, sanitary facilities, adequate housing, education and training, transportation, and health services.
- Workers' rights to organize and negotiate freely with their employers are guaranteed in accordance with local laws and international obligations.

**2. ECOSYSTEM AND WILDLIFE CONSERVATION:** Coffee production systems maintain and enhance **biological diversity**<sup>\*</sup> and **ecosystem** functions on farms and surrounding areas.

- There is no disturbance of intact **natural** forest.
- Rare, **threatened or endangered species** and habitats are protected, including adequate measures to restrict hunting and commercial collection of threatened flora and fauna.
- Where coffee is grown in areas originally covered by forest, a **canopy cover** of diverse native tree species that conserves local and endemic biodiversity is incorporated into coffee production systems.
- Pruning of shade trees preserves their reproductive processes and protects the habitat they provide for plants and animals.
- **Areas of high ecological value** located on and around coffee farms and producer communities, including wetlands and native forests, are protected.
- Coffee farms and surrounding areas create a diverse **landscape mosaic** that serves as wildlife habitat and migration corridors between protected areas.
- Land **restoration** programs using native species are implemented on areas **degraded** by unsustainable cropping, grazing or extractive practices.

**3. SOIL CONSERVATION:** Farm management practices control erosion and conserve or enhance soil structure and fertility.

- Most soil nutrients are supplied by on-farm sources, by means such as organic fertilizers, cover crops, mulch and compost.
- Environmentally appropriate measures are taken to control erosion and build soil quality, particularly on sloped terrain or adjacent to water courses and wetland areas.

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<sup>\*</sup> Words in **bold** are defined in the glossary at the end of this document.

4. *WATER CONSERVATION AND PROTECTION:* Coffee production systems reduce water use to the greatest extent possible and prevent pollution of all water sources.

- All existing sources of contamination are eliminated and potential sources are managed, to prevent pollution of water resources.
- Vegetative **buffer zones** are in place adjacent to all water sources.
- The volume of water used in wet processing and on farms is continually reduced through the application of more efficient technologies and recycling of water.
- No alteration of the course or hydrology of streams or other surface water occurs.

5. *ENERGY CONSERVATION:* Energy is used efficiently at all stages of the coffee production system, and **renewable sources of energy** are used whenever possible.

- Efforts are made to reduce the use of non-renewable energy sources such as petroleum-based fuels and to incorporate renewable sources of energy such as solar drying.
- Firewood comes from well-managed sources that avoid degradation of natural forest and that employ environmental safeguards.

6. *WASTE MANAGEMENT:* Waste and coffee by-products are managed to minimize environmental impacts by applying the principles of reduction, reuse and recycling.

- Measures are taken to continually reduce the overall quantity of waste produced on the farm.
- All organic farm by-products and domestic waste, including coffee pulp and parchment, are composted and reused in the coffee production system.
- Recycling of inorganic waste is encouraged. Inorganic waste that is not recycled, including chemicals and other toxic materials, is not burned and is properly managed, using landfills if available.

7. *PEST AND DISEASE MANAGEMENT:* Coffee production systems strive to eliminate all inputs of chemical pesticides, fungicides, herbicides and synthetic fertilizers.

- Farms are certified **organic** or are demonstrating increasing reductions in the toxicity and quantity of synthetic **agrochemicals** being applied, leading to the elimination of agrochemical use.

- **Organic** management techniques are employed, including biological, cultural and mechanical pest and disease controls. Monitoring programs are in place to assist in the application of non-chemical preventive controls.
- Synthetic agrochemicals are used only in extreme cases when necessary to avert severe crop loss and substantial **economic failure**.
- No agrochemicals that are banned for agricultural use in their country of use, country of origin or by international agreement are stored or used on the farm.
- Effective measures are taken to ensure the health and safety of farm workers who may handle or be exposed to agrochemicals, including the provision of education, protective clothing and access to adequate medical treatment.
- All farm inputs are applied in a selective, targeted manner in order to minimize drift to neighboring fields, polluted run-off or groundwater contamination.

# Conservation Principles for Coffee Production

## Glossary

### **Agrochemicals:**

Synthetic substances used to control competition from other organisms (e.g. pesticides and herbicides), and to provide crops with the nutrients necessary to compensate for lack of soil fertility (fertilizers).

### **Areas of high ecological value:**

Those areas that possess one or more of the following attributes:

- areas containing globally, regionally or nationally significant concentrations of biodiversity;
- areas that are in or contain rare, threatened or endangered **ecosystems**;
- areas that provide basic services of nature (e.g. watershed protection or erosion control) in critical situations;
- areas fundamental to meeting the basic needs of local communities (e.g. subsistence or health)
- areas critical to local communities' traditional cultural identity (areas of significance identified in cooperation with such local communities).

### **Biological Diversity:**

The variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.

### **Buffer zones:**

In protecting critical ecological areas, the buffer is an area of forest land that reduces the impacts of adjacent activities on the critical area. In managing biosphere reserves, it is a portion or edge of a protected area that has land-use controls that only allow activities compatible with the objectives of the protected area.

### **Canopy cover:**

The multiple storeys of foliage in a stand of trees or shrubs, in particular the uppermost continuous layer of branches and foliage.

### **Degraded land:**

Land that has suffered damage to its natural composition, structures and functions to such an extent that the structures required for future ecological processes are no longer present.

### **Economic failure:**

In the context of this document, a substantial loss of crops due to factors external to the management practices of the farm, resulting in severe negative economic repercussions and potential bankruptcy to the farm or cooperative.

**Ecosystem:**

A community of plants, animals, and their physical environments, functioning together as an interdependent unit.

**Endangered species:**

Any species which is in danger of extinction throughout all or a significant portion of its range.

**Landscape Mosaic:**

The pattern of different ages and types of ecosystems distributed across the landscape.

**Local laws:**

Includes all legal norms given by organisms of government whose jurisdiction is less than the national level, such as departmental and municipal laws, as well as customary norms.

**Long-term:**

The time-scale manifested by the objectives of the management plan and the commitment to maintain a viable ecological system. The length of time will vary according to ecological conditions, and will be a function of how long it takes a given ecosystem to recover its natural structure and composition following disturbance.

**Natural:**

Areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure and diversity are present.

**Organic:**

An integrated system of farming based on ecological principles, that replenishes and maintains long-term soil fertility by optimizing conditions for biological activity within the soil, rather than through the application of agrochemicals.

**Renewable sources of energy:**

Any resource that provides energy and is capable of indefinite renewal on a human-based time scale.

**Restoration:**

A process of returning ecosystems or habitats to their native structure and species composition.

**Threatened species:**

Any species that is endangered or is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.