

## Biodiversity Protection in Managed Lands: Opportunity for Coalitions

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## Introduction

Protection of the natural environment is essential to the long-term health of the planet's natural resource base, to human populations dependent upon that base, and to most discussions focused on sustaining humankind's existence. The role of biodiversity in long-term planning is becoming more evident as science inquiry reveals the connections that diverse life forms, genetic material, and habitats have with sustainable systems. Biodiversity has, in fact, been positively linked to productivity, sustainability and stability (Tilman et al, 1996; 2002). From the conservation and habitat angle, biodiverse agroforestry systems such as shaded coffee and cacao farms in Latin America (and most probably elsewhere) have been shown to serve as suitable habitat for a number of taxa (Estrada et al, 1993, 1994; Donald, 2004; Greenberg et al, 1997; Perfecto et al, 1996; Philpott et al, 2006), as well provide a host of environmental services (Davidson, 2005; Nelson and de Jong, 2003; Power and Flecker, 1996; Vaast et al, 2005; Pandey, 2001; Rice and Ward, 1996).

In this paper, shade coffee—sometimes referred to as “sustainable” or “biodiversity-friendly” coffee—takes center stage as a potential conservation tool. Since the advent of intensified interest in the coffee-as-habitat issue from researchers, conservationists, development staff and marketers, a progression of initiatives has unfolded across coffee's physical and social landscapes. While the organic and fair trade coffees fall into what the industry accepts as sustainable coffees, it is the shade characteristics providing habitat and refuge for biodiversity that are of central concern here.

Throughout Central and South America, and more recently in Africa and Asia, coffee regions have witnessed increased attention toward sustainable coffee production targeting local communities and organizations. An important feature of most of these efforts relates to the shade component of coffee agroecosystem, as witnessed in the growing marketability (at least within the US) of shade-grown coffees. The attention—ranging in nature from internationally funded initiatives funneled through national offices to

programs designed around bottom-line, long-term strategies—comes from non-governmental organizations (NGOs), international aid agencies, and local and global private concerns.

The one entity noticeably absent within these efforts is that of local or national government in the producing countries. Particularly in terms of coordinating the extant initiatives to the overall best interest of the country in question, concrete governmental action does not exist in most countries. For a system as bio-diverse as the shaded coffee system to be the focus of different groups, and for that same system to be left unattended by local decision makers—at the very least in terms of orchestrating and harmonizing the efforts—governments miss excellent opportunities to address long term environmental and social goals. Governments could capitalize on gathering these efforts.

This paper addresses some of the efforts underway in the shade-coffee movement, their potential benefits, as well as some of the opportunities lost or squandered by national governments' lack of participation. Finally, I explore and propose ways that governments should become more actively involved in coordinating activities that mesh with the goals of these initiatives.

### Shade grown coffee's place

Like the certified organic and fair coffees' marketplace viability (addressed elsewhere in Rice, 2001 and Kleist, 2004), shade coffee falls under the specialty or gourmet coffee industry's umbrella. Specialty coffee in the United States accounts for some 15% of the imported coffee volume, and around 45% of the coffee value (Mike Ferguson, pers. comm.). As a subset of the specialty coffee industry, shade grown coffee's role is quite small. However, as a perennial tropical crop found in "biodiversity hot spots" (Philpott and Dietsch, 2003; Toledo and Moguel, in review), the agro-forestry nature of its management, as well as its acknowledged role as a refuge for biodiversity (Perfecto et al, 1999), make it a crop worthy of attention from local decision makers. These same

attributes make it an attractive commodity for consumers of the North, which, creates a potential revenue stream to poor rural areas. A number of initiatives now target an “environment friendly” or “sustainable coffee” approach, and have track records of five to ten years in producing countries, with little evidence of abating. Rather, it seems that the notion of coffee’s ecological dimension has caught northern consumers’ attention to the degree that its cache will only increase in the coming years (Ponte, 2004).

Sustainability indeed seems to be going mainstream (Daviron and Ponte, 2005), even though the range of environmental criteria and the scopes of the programs differ in terms of area and production (see Tables 1 and 2). All the initiatives have substantial room for expansion. Only about one-quarter of fair trade coffee is marketed as such, compared to one-third for Utz Kapeh and Rainforest Alliance. Certified organic claims nearly 40% of its supply is sold as such, while the Bird Friendly<sup>®</sup> coffee sees less than five percent reaching the market (Tim Fox, pers. comm.). The Starbucks Coffee Company obtained about one quarter of its total coffee volume in 2005 beneath its C.A.F.E. Principles (Starbucks, 2006). While each initiative or certification label has its distinct focus, they all have an environmental or ecologically sustainable aspect as part of their attraction for consumers.<sup>i</sup>

In order to understand the various approaches involved in the “sustainable” coffee movement and market, the rest of this section briefly explains the current initiatives operating within the coffee landscape.

Rainforest Alliance: One of the more visible international environmental organizations, Rainforest Alliance (RA) has proven its staying power through its initial work on issues of tropical deforestation and its more recent entry into sustainable agricultural practices—all focused around the holistic goal of sustainability through social responsibility, economic viability and environmental protection (Wille, 2004). Starting out addressing the environmental threats of forest destruction, RA then cut its teeth in the world of business-conservation partnerships working with Chiquita in Costa Rica and its markets in Europe and the US.

After the Chiquita experience, an opportunity with coffee was seen, and, in conjunction with RA's Sustainable Agriculture Network (SAN), several tropical crops entered the certification program. Within the sphere of sustainable coffee there now are some 3500 individual farms (some being members of cooperatives) producing 115 million kilograms of "Rainforest Alliance Certified" coffee (Rainforest Alliance, n.d.).

Utz Kapeh: The Utz Kapeh initiative seems to have been the mainstream's response to fair trade. The standards are not as strict as fair trade and the target producers tend to be large estate farms that, by definition, are excluded from the fair trade model. With criteria addressing both social and environmental elements of production, the standards set a minimum bar for compliance through the use of major, minor and recommended standards. A total of 204 "control points" set the standards for participation (Utz Kapeh Code of Conduct, 2006). The organization's website ([www.utzkapeh.org](http://www.utzkapeh.org)) reports that more than 200,000 tons of coffee from 19 countries derives from more than 215 producer groups.

As Daviron and Ponte (2005) point out, the Utz Kapeh control points cover a range of conditions related to soil management, worker health and safety, pesticide and fertilizer use and handling, and environmental protection. Of the 21 standards listed in relation to the environment, one is a major control point, 12 are minor, and eight are recommendations. Within the coffee industry globally, Utz Kapeh has seen substantial growth in the past five years.

Bird Friendly<sup>®</sup> (Shade Coffee): The Bird Friendly<sup>®</sup> (BF) coffee program grew out of scientific field research by staff at the Smithsonian Migratory Bird Center (SMBC) at the National Zoological Park in Washington, DC. Observations and thousands of data points collected from rural landscapes composed of coffee and other land uses led to a set of biophysical criteria describing the shade tree characteristics of coffee farms that provide viable habitat for birds—both migratory and resident. A pre-requisite for the shade

certification is certified organic status, and the organic certification agencies have taken over the responsibilities linked to inspection and certification.

A certification program for farms meeting these shade standards first emerged in 1998, and was re-vamped slightly in 2000/2001. It aims solely at the physical/ecological aspects of the coffee farm's shade component, relying on the organic certification to satisfy other management aspects of the farm for environmental health of the system. Due to the somewhat more rigorous standards (Mas and Dietsch, 2004), the BF program tends to attract small producers organized into cooperatives—producers who tend to manage farms with more species and structural diversity than larger farms. More than 8 million pounds of coffee (not much within coffee trade circles) are currently certified as BF, derived from farms in seven Latin American countries and covering some 7500 hectares.

Starbucks: The Starbucks example The Starbucks Coffee Company (SCC) initiated a “Code of Conduct” initiative in 2001, in which the company sought to establish long-term relationships with coffee suppliers (growers, processors, exporters). Before that, during the 1998 to 2000 period of very low coffee prices, a set of conservation principles established a footing from which the company would eventually design a more far-reaching procurement program. The vision behind this effort was one of economic, social and environmental sustainability. Not only would such a program assure SCC that coffee purchases were made in an environmentally and socio-economically responsible manner, but, perhaps more importantly, lock in coffee sourcing with the suppliers worthy of preferential treatment in its “Preferred Supplier Program”—an understandable goal in the company's ever-expanding supply needs.

A two-year pilot program, organized through knowledgeable local coffee people in Guatemala, served to test the various forms and procedures in real life coffee settings. By 2004, SCC was ready to launch the Preferred Supplier Program under its newly minted “Coffee and Farmer Equity (C.A.F.E.) Practices,” which focuses on the suppliers (exporters, farms and cooperatives in producing countries) who must meet established standards in order to partner with the company. It has created what SCC calls a “value

chain” extending from producer to customer, with all upstream actors from the roasting process meeting the standards set out in the C.A.F.E. Practices.

Starbucks is already a force within the Latin American coffee landscape, having purchased 312 million pounds of coffee in 2005. Nearly one quarter of that was obtained through the C.A.F.E. Practices program, aided by the Starbucks Coffee Agronomy Company opened in Costa Rica in 2004, whose goal is to work with farmers worldwide who are involved with strategic suppliers (SCC Annual Report, 2005).

Other private and institutional initiatives exist, such as Green Mountain Coffee Roasters’ “Stewardship Program”, a number of self-verified efforts by smaller roasters, and public/private attempts such as the German-based “Common Code for the Coffee Community” have all gained a certain degree of traction within the industry. All together, these various initiatives have grower groups attempting to understand and act on questions of certification and quasi-certification in order to best position themselves economically.

Sustainable coffee certainly seems to be going mainstream, and most of the coffees involved have substantial room for expansion. Only about one-quarter of fair trade coffee is marketed as such, compared to one-third of Utz Kapeh and Rainforest Alliance. Certified organic claims nearly 40% of its supply sold as such, while the Bird Friendly® coffee sees less than five percent reaching the market as such (Tim Fox, pers. comm.).

Conventional wisdom of institutional inadequacies:

Successful government policies protecting the environment are few, especially in developing countries (Steinberg, 2001, 2003; Barrett, et al, 2001; James, et al, 2000). A society needs an environmental culture extending into the policy realm in order to make significant progress in truly protecting its resource base (Steinberg, 2003). Relatively

weak institutions, subject to crises in trade or finance, operating in the stew of class conflict or peevish state-society relations, or simply working within the confines of domestic politicians striving for political survival and international interests seeking raw materials (Steinberg, 2003), travel a difficult road in developing countries. Neo-liberal economic policies promoted in recent decades have stunted states' control and influence throughout much of the developing world (Daviron and Ponte, 2005). And even if certain institutions do manage to create good environmental policy, they often must contend with sibling institutional policies that work at cross-purposes (Barrett et al, 2001). The end result is one of minimal state investment in environmental protection, with private interests dominating (James, et al, 2000). Ministries charged with environmental, social or productive goals are often fragmented and plagued by inter-institutional rivalries and jealousies, making the development of any lasting social capital within national bodies difficult (Leif Pedersen, pers. comm.).

Weak institutional bodies also lack the enforcement needed to uphold environmental regulations when they are on the books. A dependency upon donor aid for ambitious and/or innovative projects further complicates successful environmental oversight by national governments. For instance, the Meso-American Corridor initiative, funded heavily by the United States Agency for International Development (US-AID), sought to incorporate shade coffee into the buffer zones around the protected areas targeted by the project. While the shade coffee areas have been promoted with some success, true participation and viable commitment from state ministries has been minimal. Overall, the ground-level activity has fallen to non-governmental organizations receiving grants from US-AID (Jill Kelley, pers. comm.). Others involved with this specific project see a definite fizzling out of the efforts and interest on the part of governments as the funding periods ended (Leif Pedersen, pers. comm.).

Where sustainable coffee is concerned, the landscape is tinged with the familiar tones of "business as usual". Lack of government attention towards coffee's role as a potential conservation tool places growers at the mercy of powerful local and international forces. Yet this does not mean that the initiatives involving conservation coffees have provided

no relief; they have. For many small peasant producers involved in managing a diverse agroforestry system in which coffee is the main crop, meeting the biophysical criteria is relatively easy—much easier, in fact, than for larger growers.<sup>ii</sup> Even in the economic atmosphere tainted by several years of basement-level coffee prices, growers—especially small producers—have differentiated their coffee by participating in one or more of these initiatives. These environmental beacons of certification, however, have all risen over the northern horizon. As “buyer driven” initiatives (Ponte, 2004), they reinforce the power relations of what has become a consumer-driven model. Producers must first meet the standards in order to enter the sustainable coffee market, and then face whatever consequences emerge as time and (perhaps) economic benefits draw more producers into the segmented markets.

Benign neglect and enlightened interest:

Unlike years gone by, in which producing countries’ policies sought to bolster the revenue stream from coffee trade (Fisher, 1972; Daviron and Ponte, 2005), current government involvement in the coffee sector is minimal. Neo-liberal economic strategies have all but pushed governments away from any regulation of stocks or market control enjoyed during the past—aspects of the international structure that could influence prices and protect growers to a certain degree. Coffee has been treated as a foreign exchange earner, with an eye toward maximizing yields and with little or no concern for the ecological consequences of shade removal or agro-chemical use (Rice and Ward, 1996). Even with the dynamic nature of specialty coffees and the certification schemes described here, coffee is still viewed by most governments as a commodity. A productionist model prevails, with neither government officials nor national policies recognizing the coffee agroforest as a useful conservation tool (Homero Blas, pers. comm.). Yet, in examining the activities within a number of countries, we can find evidence of both continued neglect and some promise of change with respect to government attitudes and activities.

In Mexico, a number of regulations and policy issues related to sustainable/shade coffee's role in carbon sequestration (and potential carbon credit trading) and other ecological services have been discussed in recent years. Such discourse in Mexico is logical, as its certified organic coffee production outstrips all other countries (Willer and Yussefi, 2006). But recent price and production decreases gave way to government attitudes towards coffee as merely a commodity with no acknowledgement of its conservation value. At the national level, any attention toward coffee was seen as a waste of time and funds for the government (Homero Blas, pers. comm.). Organic coffee producers, an obvious target for environmental attention from the state, have tried for the past two years to set up an incentives program with the national government for their efforts in good land stewardship. Minimal aid was obtained from Mexico's National Forestry Commission (CONAFOR), based on the trees used for coffee shade cover in the "Environmental Services" program (watershed protection, carbon sequestration, etc.). The program seeks to improve existing agroforestry systems. On the whole, however, organic producers have received "*ni un cinco todavía*"—"not even a cent yet"—according to long-time personnel in the coffee sector of Oaxaca (Miguel Tejero, pers. comm.).

In the late 1990s, Peru's "Junta del Café" (a private entity composed of producers and policy makers) launched an effort to involve the Peruvian government in a program seeking to increase the competitiveness and traceability of sustainable coffees (Peru is second to Mexico in organic coffee production), as well as define and harmonize some standards at the national level. A frustrating period of the government's trying to create an image of participating without devoting any real effort has ensued. Such benign neglect contributes to only part of the frustration of those with a vision for sustainable coffee, however. According to the Junta leadership, even with World Bank funding to capacitate cooperatives in the theme of sustainability, there is no defined avenue for doing so on the part of the Ministry of Agriculture. Moreover, organic producers suffer from discriminatory policies related to inputs and equipment for production. Unlike their conventional counterparts who pay no value-added tax on agricultural inputs, organic

producers pay tax on phosphate (“roca fosfórica”), one of the organic community’s most-used soil inputs<sup>iii</sup> (Lorenzo Castillo, pers. comm.).

There are some examples of enlightened attention toward the coffee sector, but not at the national level. The Ministry of Agriculture in Mexico’s state of Oaxaca stands alone in its exhibited interest in coffee’s environmental profile through certain funding programs it operates for grower assistance. Within the past two years, the costs of certification were funded by government funds for producers who could show that their farms were certified with any of a number of initiatives. In most cases, this amounted to \$1000 to \$2000 (USD) per certificate, depending upon the size of the production unit (H. Blas, pers. comm.).

Similar interest has emerged in Colombia, where the Colombian National Coffee Federation (FNC) also is paying farmers’ certification costs associated with the organic, fair trade, Rainforest Alliance and Utz Kapeh initiatives. While not a state entity *per se*, the FNC currently recognizes the importance of coffee’s environmental dimension. It helped publish “The Environmental Guide for the Coffee Sub-sector”, an effort completed jointly with Colombia’s Producers Society and the Ministry of the Environment in 2002. Since then, however, the government agency has changed to the Ministry of the Environment, Housing and Territorial Development and the plans, focus and dedication of ministry personnel with respect to the environmental side of coffee is unclear (Jorge Botero, pers. comm.). The FNC does support basic field research relating coffee to biodiversity, however, as witnessed by on-going study of bird research in a number of coffee regions—most recently comparing the various certifications programs’ impacts on bird diversity and abundance.

Costa Rica is the single example of a national government initiative attempting to promote sustainable coffees. While the prevalence of shade grown coffee there is not as great as in other countries (Rice and Ward, 1996), the Costa Rican government has a well-established record for developing environmental policy (Steinberg, 2003). Over the

past ten to twelve years, regulations addressing the contamination of waterways from coffee processing were put in place, resulting in a measurable change in the water quality (Luis Zamora, pers. comm.). In 2002, a national seal for sustainable coffee was established by a state-sponsored program and administered by the Costa Rican Coffee Institute (ICAFFE). There are currently hundreds of producers and about one fifth of the coffee processing mills registered with the program, but the seal is virtually unknown on the marketing landscape due to being overshadowed by the Starbucks' initiative—Starbucks (SCC) is most active in Costa Rica (Carlos Fonseca, pers. comm.).

### Coops co-opted?

While this last example may merely portray how one interest's aggressive marketing and promotion of a program can overwhelm that of others, there are more unsettling ways that powerful private entities can impact the social landscape—in this case, the cooperative sector that supplies much of the sustainable coffee to the industry. Coffee cooperatives are acknowledged as an organizational form that can (yet not always do) benefit small producers in remote areas (Korten, 1980; Bray et al, 2003; Rice, 2001; Martinez-Torres, 2006; Pretty, 2003). Any given coop rarely operates at its theoretical zenith with respect to social benefits. But from the standpoint of a single small producer, a cooperative approach helps to deflect problems brought on by the vagaries of agriculture and the socio-political stew of a region. Growers can buy goods and services in bulk, reducing the per-unit costs. Where organizational strengths have matured, political and/or social cohesion may enable communities to exert pressure on local or national centers of power. And in the best of cases, social capital accumulates in the form of self-confidence, self-determination and a willingness to act in the community's best interest--intangible benefits that foster trust and cohesion between members.<sup>iv</sup> A commonly held view of researchers familiar with Latin America maintains that the social organization necessary (i.e., working together to build and satisfy foreign markets) for organic coffee production at the community level strengthens the social fabric of communities. But when no oversight of the various actors is in place, or when low prices

create crisis throughout the producing landscapes, powerful interests—even those with the best of intentions—may be seen as disruptive forces.

For example, in Guatemala, buyers for the Starbucks Coffee Company suppliers (local export houses) scour the countryside at harvest time, looking for coffee to supply the program. Often allied closely with local banks, these exporters have cash at hand to offer growers. Reports of growers selling directly to these intermediaries are troubling: instead of selling through the established channels of the cooperatives, members selling to intermediaries could potentially erode the social capital gains of the cooperative.<sup>v</sup> While unclear how widespread these circumstances are, they do create considerable concern for the long-term viability of cooperatives that depend upon member fidelity in channeling sales.

#### Discussion:

The shade or environmentally sustainable coffee issue has brought a diverse set of players into the market place, into the development arena, and onto the existing social and physical landscapes related to coffee. Producers wishing to capture whatever advantages they can must adhere to standards and interests born abroad from concern for environmental well-being. Large estates and cooperative organizations alike have responded to the growing interest of consumers in the North for coffees that preserve or enhance biodiversity and maintain ecological services.

Such a response by those in the South can be termed “outward looking” and “market reactive”, characteristics that differ little from the historical arrangements of North-South relations. The coffee being sold is a commodity; certainly, most of the national governments in producing countries see it as such, and little else. It is seen for its foreign exchange potential, much like its historical role in national balance sheets. But it should be viewed by governments as a commodity with acknowledged social and environmental benefits; an “environmental commodity”, so to speak. Yet, as Daviron and Ponte (2005)

argue, while producing countries are involved in the *material quality* of the coffee, it is the North that controls the *symbolic qualities* of the product. And these symbolic qualities, be them environmental, social or cultural, are being created and manipulated by roasters and others in the North—all of which adds value to what the final consumer is willing to purchase.

Due to the nature of its quality (segmented or niche markets) and to the environmental stewardship these initiatives represent, sustainable or shade coffee has great potential as a both a conservation tool and a way to alleviate rural poverty. Yet, I would argue that one of the main reasons that growers remain at the mercy of international markets and that ecological damage in agricultural production continues is the lack of involvement by national governments in acting on opportunities such as the sustainable coffee movement—where conservation, niche markets and agriculture clearly intersect.

There is obvious variation in the degree to which these initiatives provide secure markets and price premia for the growers involved. Certified organic, fair trade and Bird Friendly<sup>®</sup>, described as “high-bar” (more strict) initiatives (Daviron and Ponte, 2005), can do provide some added value to producers, but only, it seems, to the point of matching incomes enjoyed during the height of the International Coffee Agreements, under which stocks (and therefore prices) were controlled for economic and geopolitical reasons. Growers today are at the mercy of Northern markets more than ever.

It is worth repeating that the shade coffee issue has a double advantage for producing countries, and especially for national governments. Not only can sustainable coffee with certified shade cover provide habitat and refuge for a number of taxa, growers could also benefit economically with more organized and controlled marketing strategies. Some sort of government attention to this sector could greatly aid the growers’ efforts and benefit the natural heritages of the countries involved. Governments face an opportunity with the shade coffee markets to address a number of pressing issues. Creating policies linked to this “environmental commodity” could greatly aid, for instance, in advancing toward some of the Millenium Development Goals (MDGs):

- MDG #7: ensuring environmental sustainability, with a target of integrating “the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources;

- MDG #1: eradicating extreme poverty and hunger, with a target of halving, by 2015, “the proportion fo people whose income is less than \$1 a day”.

The seventh goal of ensuring environmental sustainability obviously relates to the shade coffee issue, especially as the main focus of that goal is to deter deforestation related to the conversion of natural forests to agricultural lands (UN, 2006). All of the certification initiatives discussed here prohibit in some fashion forest removal for the purpose of coffee production. Moreover, the agroforestry characteristics have been shown to provide quality habitat for a number of organisms, thus helping to protect and provide refuge for biodiversity. The first MDG of poverty alleviation could also be satisfied to some degree with directed attention by national governments. Aiding growers and grower groups with access to markets, policies that encourage market participation and development, as well as policies that would buffer shade coffee producers against the vagaries of nature and international forces are all ways that national governments could foster rural development.

Aside from biodiversity protection and rural poverty alleviation, there is a social stability argument related to this call to arms for national governments’ action. A quick review of the armed uprisings and guerrilla movements (at least within Latin America) reveals that strong support and alliance emerged from rural areas dominated by coffee farms.

Whether small peasant producers or landless workers on large plantations, the rural populations associated with Nicaragua’s Frente Sandinista de Liberación Nacional, El Salvador’s Farabundo Martí para la Liberación Nacional, Guatemala’s various guerrilla organizations, Mexico’s Ejército Zapatista de Liberación Nacional, and Colombia’s numerous movements all blanketed the coffee landscapes of the region. Social science scholars on Latin America make the connection between coffee and revolution (Whiteford, 2002; Sánchez and Avilés, 2001; Petras, 2000).

Part of the rationale for the ICO's International Coffee Agreement was geopolitical (Daviron and Ponte, 2005; Dicum and Luttinger, 1999), where secured pricing through quotas was seen as method to deter the spread of communism and general left-wing ideology that might disrupt the *status quo*. Given the mainstream trajectory of shade (sustainable) coffee on the international market, it is logical to assume that policies directed to organize growers and/or monitor and harmonize the various initiatives could work to the benefit of producing countries' decision makers, relieve rural poverty, and—hopefully—stem social unrest.

#### Recommendations and conclusions:

Given the climate of state institutional weakness and disarray in the aftermath of neo-liberal economic policies throughout the developing world, in conjunction with what might be a structural crisis in terms of world prices (Rice, 2003), what kinds of action or policies on the part of national governments might we expect that would aid the shade coffee movement? The most important action that national governments could take immediately is one of coordination. While tending toward mainstream, the sustainable coffee market is still developing. The coming years will see the concept of sustainability expanding into an accepted and expected feature of coffee. For that reason, national governments need to get involved. The benefits of good land stewardship—protection of watersheds, biodiversity and habitats—coincide with environmental goals that are or should be on the legislative books of all nations. Moreover, the income generated by these coffees from a growing consumer demand is a feature that governments should encourage, applaud and protect. The challenge for national governments is to harness the potential economic potential for growers and ensure the environmental benefits for their national heritage.

National governments need to act as a catalyst to blend the efforts of these various initiatives. Establishing a Sustainable Coffee Board, for instance, would be one method of starting the dialogues necessary to explore how the initiatives might work together.

The rationale for seeking such cooperation and coalition formation is the protection of the social and physical landscapes. It falls to national governments to act in the best interest of these landscapes. Moreover, for the long-term benefits of all concerned—producers, exporters, roasters and retailers—a coordinated, harmonized approach is more apt to secure supplies *and* protect growers and their lands. If governments of a region (Central America, for instance) coordinate their efforts to gain control of the sustainable coffee movement, their effectiveness would be enhanced.

Establishing any set of rules to which all initiatives must adhere obviously goes against the notion of free and open markets. Such actions would certainly be met with tremendous opposition. Yet, if couched in terms of environmental protection, poverty alleviation, and social stability, there are innovative ways in which governments could gain control and benefits.

While the above recommendation might understandably be seen as a naive notion, it is also unrealistic to assume that the unfettered marketplace can solve—or worse, has no connection to—environmental problems such as biodiversity loss and habitat destruction. While working toward some control over the various initiatives currently operating, national governments should consider the following as first steps:

- Clearinghouse for sustainable coffees: the state should coordinate the various initiatives in ways that growers can best take advantage of them. In acting as the agent to help growers learn the basic pros and cons of the program, producers and producer groups could make informed decisions about where to place their own energies and funds.
- Pay the way: as shown already by para-state (FNC in Colombia) and local governmental bodies (state government of Oaxaca, Mexico), growers qualifying for the certification schemes can be helped by governments' footing the bill for certification costs. This is not a long-term solution, but could help stimulate non-participating growers to get involved.

- Fiscal incentives for sustainable production: governments could reduce or completely waive the tax currently paid (value added) on inputs, equipment and services needed by farmers involved in one or more of the incentives. In cases where every bag of exported coffee is taxed, the tax could be altered to benefit the grower or the taxes themselves could be shunted into the promotion of the sustainable coffee sector.
- Producing country cohesion: consuming countries act in unison or near-unison on many issues of trade, so there is no reason that producing countries should not do the same. Concerted action and decisions related to coffee's environmental and socioeconomic benefits—including the security and social stability benefits—could be leveraged to gain better prices for producers.
- Promotion of the environmental benefits of shade coffee at the national and international level: exploiting the concept of coffee-as-habitat in order to expand both the domestic and international sustainable coffee markets would help increase demand for coffees managed beneath good land stewardship practices.
- Sergeant-at-arms: national governments could monitor the activities of the various initiatives, with an eye toward ensuring that growers participating in sustainable coffee initiatives reap the benefits stated in the various initiatives' marketing materials.
- South-North vertical integration: taking advantage of the *symbolic* qualities of the sustainable coffees, national governments could help found small coffee shops in the North that feature the coffees of their producers. The profits realized from the sales of sustainable coffee to the final consumer would be funneled back to the coffee communities.

Such actions will not be easy in all cases, especially where issues of control are concerned. International trade of coffee has been hands-off for enough time that any attempt to take control of stocks or some other facet of the supply chain will certainly be met with strong opposition. The recent reaction on the part of Starbucks (or the US-based National Coffee Association, depending upon who is to be believed) to the Ethiopian government's registering geographical place names to be trademarked in order to bring greater revenues into the country's coffee sector is a good example (MarketWatch, 2006; BBC News, 2006). But it is precisely the national governments that need to step up and exert some influence over activities related to sustainability. A host of non-governmental and private initiatives have developed and promoted the notion of sustainability for the marketplace. Governments need only to ground these efforts to the well-being of their national heritage, rural landscapes and productive communities.

Tables:

<b>Program/Initiative</b>	<b>Area (ha)</b>	<b>Production (mt)</b>	<b>No. of farms*</b>
Certified organic	324,000	113,000†	1000's
Fair Trade	417,000†	34,000	231
Bird Friendly®	7600	3640	35
Rainforest Alliance	164,000†	115,000	210
Utz Kapeh	154,000†	108,000	135
Starbucks	50,000†	35,000	100's

\* "farms" refers to both private estate farms, as well as cooperatives, which can have hundreds of producer members;

† for programs providing a figure for area or production only, hectares or metric tones were estimated by using an average yield figure (700 kg/ha) taken from the twenty top coffee producing countries in the UN's FAO data base—[www.faostat.fao.org](http://www.faostat.fao.org), except for Fair Trade and certified organic, sectors dominated by small peasant producers with lower yields, for which 350 kg/ha was used for calculations.

Source: Bird Friendly®: SMBC website at [www.si.edu/smbc](http://www.si.edu/smbc); Fair Trade: FLO International, 2005, and TransFair, 2006; Utz Kapeh: Annual Report, 2005; Starbucks: SCR Annual Report, 2005; Organic: Willer and Yussefi, 2006 ; Rainforest Alliance: RA website at [www.rainforestalliance.org](http://www.rainforestalliance.org);

<b>Initiative or Program</b>	<b>Tree height</b>	<b>Species diversity</b>	<b>Native vegetation</b>	<b>Foliage cover</b>	<b>Structural diversity</b>	<b>Other features relevant to coffee as habitat</b>
Certified organic (e.g., OCIA, Organic Crop Improvement Association)	Not specified	n/s	≥80% native species	40%--with no drastic reduction from management practices	n/s	Rustic or traditional polyculture shade characteristics encouraged
Fair Trade	Not specified	n/s	n/s	n/s	n/s	Generic environmental standards, nothing specific to coffee*
Bird Friendly®	≥ 12 meters	≥11 spp.	“backbone” (principal) sp. must be native	40% min.	3 strata	Organic certification by a USDA-accredited organization required.
Rainforest Alliance	Not specified	Homo-geneously distributed	≥12 spp. per hectare	40% min.	2 strata	Evaluation of various taxa also included as part of inspection.
Utz Kapeh (points system)	Not specified	n/s	n/s	n/s	n/s	Major requirement prevents deforestation two years prior to registration. Minor criteria address knowledge of local/national environmental regulations, conserve forest patches, protect threatened/endangered species and habitats.
Starbucks (flexible points system)	Not specified	75% local spp.	≥2 spp. native or otherwise shown to contribute to conservation	40% sought as ideal	2 strata, where local conditions allow	Although based on standards, not a “certification,” but rather a “purchasing program.”

\*Discussions for including environmental criteria for coffee on-going.

Source: Bird Friendly®: SMBC website at [www.si.edu/smbc](http://www.si.edu/smbc); Fair Trade: FLO International, 2005, and TransFair, 2006; Utz Kapeh: Annual Report, 2005; Starbucks: SCR Annual Report, 2005; Organic: Willer and Youssefi, 2006 ; Rainforest Alliance: RA website at [www.rainforestalliance.org](http://www.rainforestalliance.org);

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Endnotes:

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<sup>i</sup> While FT standards have no specific shade criteria for coffee, FT promotes claims of substantial shade production by its member producers in its marketing materials.

<sup>ii</sup> From the Bird Friendly<sup>®</sup> coffee program, our own experience shows that small producers have a much more varied shade component than larger growers. This certainly makes sense from the standpoint of risk aversion, a common operational trait of survival for all peasants, who shy away from being dependent upon a single crop on their small holding. An array of products from the shade trees over the coffee provides them with many useful and marketable items.

<sup>iii</sup> On mined “guano”, also an important input for organic production, growers pay no tax. However, since 2005, the price for guano climbed 90% due to management problems within the Ministry of Agriculture’s ProAbono program, effectively taxing growers for the mismanagement (Lorenzo Castillo, pers. comm.).

<sup>iv</sup> As to the self-confidence aspect of individuals, I have seen both Nicaraguan and Cuban peasant producers in cooperatives stand and publicly speak with plainly stated elegance and assurance to government officials and/or visiting academics about problems they face and the sources (government policies) of the problems—occurrences I never witnessed in other (non-cooperative) settings in Latin America.

<sup>v</sup> Growers are willing to sell to intermediaries for a number of reasons, among them the ready cash and complete payment at time of sale—transaction aspects quite different from selling via the cooperative. This information comes from the staff of a certification agency in Guatemala.