THE COSA MEASURING SUSTAINABILITY REPORT

COFFEE AND COCOA IN 12 COUNTRIES

Executive Summary



COSA

The Committee on Sustainability Assessment (COSA) is a neutral global consortium whose mission is to accelerate sustainability in agriculture via partnerships and assessment tools that advance our understanding of social, economic, and environmental impacts. COSA advises and works together with important institutions and world-leading companies to accelerate the use of sound metrics and the effective management of sustainability efforts.



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The data, material and opinions expressed are strictly those of the authors and do not necessarily reflect endorsement by the organizations participating with COSA.

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The Main Issues

In the past two decades, markets grew to accommodate no less than 435 "eco-labels" claiming some aspect of sustainability. Some have ushered in new models for sustainable production, energy use, and trade. Yet no matter how thorough or rigorous a sustainability label is, sustainability is not synonymous with any one particular sustainability standard or label.

Products bearing the most visible sustainability labels such as Organic, Fair Trade, Rainforest Alliance, and UTZ Certified are widely recognized in the more developed markets. Their presence is the result of heightened consumer awareness and the leadership of food companies who believe they need to integrate more sustainable practices into their supply chains. The world's largest food and beverage companies, such as Mars, Mondelēz, McDonalds, Unilever, PepsiCo, and Nestlé have made public commitments to such initiatives and now routinely buy and market at least some certified or verified products.

All of the eco-labels and programs aim to promote sustainable development, yet their processes and their impacts differ significantly. It may be difficult to discern the differences in part because even the word "impact" is used loosely in many reports to indicate what is basically an intervention for instance, training or achieving a certification. Impact is simply defined as the "intended or unintended longerterm effects (positive and negative) that can be attributed to a specific intervention or investment." In fact, the credible scientific data about the impacts or performance of most initiatives is limited (i.e. using good protocols, counterfactuals, statistical significance). The data that have been collected are often not easily comparable to other data on the same topic because researchers tend to follow their own individual definitions and inclinations. Sustainability is a dynamic process - not a static point - especially in agriculture. To have any hope of managing the process of agricultural sustainability we must first have practical ways to reliably measure and understand the key factors at a reasonable cost. There is a clear need for science-based mechanisms to help understand which initiatives and interventions improve sustainability and which do not.

COSA and our Contribution

The Committee on Sustainability Assessment (COSA) is a neutral and non-profit global consortium with a mission to accelerate sustainability in agriculture via the advancement of transparent and science-based assessments. Its objective is to provide practical measurement tools and to help interpret reliable data for firms, producers, and policymakers to better manage their efforts.

COSA employs solid and simple approaches that can inform and influence the choices that are made on a daily basis. Our approaches are relatively low-cost and immediately useful for strategic and common sense decision-making. This is equally important for businesses, policy makers, and producers, as well as Voluntary Sustainability Standards (VSS).

"COSA" refers to both the collaborative grouping of dozens of organizations and hundreds of contributing experts and to the COSA system. The system offers multiple tools for gathering, comparing and sharing information, including SMART indicators, field technologies, and implementation and analysis methodologies¹. We have now worked in 12 countries and collected nearly 18,000 farm and village-level surveys, and will substantially escalate this work.

The COSA System



Scientific Methodology A proven scientific methodology for assessing the multidimensional aspects of sustainability in agriculture



Local Capacity Local capacity building in developing country institutions so they can partner in research



S.M.A.R.T. indicators Commonly defined S.M.A.R.T. indicators for consistent measurement and credible data



Tools A set of tools for gathering, comparing and sharing information

Evaluation and Impact assessment are moving toward more evidence-based protocols and the integration of approaches that better capture the systemic aspects of sustainability. Of course, no single aspect of sustainability functions by itself or operates in a vacuum. Understanding sustainability implies that we must consider the intertwined economic, social, and environmental aspects of the systems we study. For example, if the primary objective is increased yields and higher incomes then it is vital to also understand if those are achieved at a social cost such as child labor or to the detriment of the local environment. We must also be able to compare findings and mutually build on knowledge and this means moving away from just having discrete individual research procedures and always varying indicators toward fostering the common use of some important consistent basic indicators.

COSA supports management decision-making by providing a sound basis for comparison and evaluation of the effects of sustainability interventions for corporations, policy makers, and farmers. Multicriteria analysis and a commitment to understanding results in more than one dimension (i.e., more than just economic results) help to more fully explain outcomes so that interventions can be better informed and better executed. Although our work is applicable to any initiative, our considerable work with VSS forms a large part of our recent agenda and findings.

Research Findings

While the desire to compare initiatives to one another is common, we can learn more by comparing initiatives to a valid control group over time and assessing the counterfactual (what happened in the absence of an intervention). This helps to more accurately measure and understand the impacts of VSS and other initiatives. The data in this report offers some useful lessons in terms of relationships and trends but, since a number of the projects have only one or two years of observations to date, these are still insufficient to provide a thorough assessment of impacts.

Overall, looking at these data, one of the clearest understandings emerging from COSA's work is that the success of a sustainability intervention is often dependent on the particular context. As the impacts of standards and initiatives unfold over time, more conclusive evidence will continue to emerge from the multi-year comparisons with our Partners, reducing the bias that can result from single-year views. With reliable data about their results, VSS or other initiatives have meaningful insights into opportunities for improvement and perhaps a clearer incentive to improve.

Certification programs are certainly not the only route to achieve sustainability. Nevertheless, in today's complex marketplace, the Voluntary Sustainability Standards are the only codified and readily verifiable means to communicate key aspects of sustainability such as production practices or trade conditions. A number of these VSS and their certifications therefore serve as unparalleled market mechanisms to convert the desires and expectations of paying consumers and firms into real incentives at the farm level. However, they do not always do so and COSA strives to measure how well these initiatives meet their objectives in multiple dimensions.

Decisions to help ensure long-term sustainability can only be as robust as the information upon which they are based.

COSA by the numbers











The VSS are often, though not always, associated with diverse economic, social and environmental benefits. These benefits are challenging to compare with the total costs of compliance since many of the benefits can be hard to monetize and the costs incurred are often not direct costs. In many cases, little of the consumer price premium reaches producers down supply chains and so while sustainability initiatives can help reduce poverty and risks in important ways, they cannot consistently overcome the low economic value of many commodities. For this reason, it is important to look at the range of benefits and costs (monetary or otherwise) when looking at the impacts of VSS or other initiatives.

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Economic Dimension

Data collected thus far reveals that, on balance, farms that are part of a sustainability initiative (typically certification) are experiencing better economic performance compared to conventional and uncertified control farms. Many producers also tend to have a more positive perception of their economic situation. Technical efficiency was higher among producers who were part of an initiative for a range of countries, although there is ample room to improve. Average net income per hectare, the single best measure of farm-level economic viability, was higher across many of the major certification initiatives observed, but not by very large margins. Higher income was typically driven by multiple factors: higher yields, lower costs of production, and occasionally, higher prices.

Caveats: Future outcomes will not necessarily offer the same positive results, especially in terms of income. In most cases the cost of entry and training

for VSS is at least partly paid by external partners that range from development agencies and NGOs to the buyers and traders of these commodities. However, it is not clear that continued funding will be available as larger numbers of producers enter. A substantial number of the producers we observed were already somewhat qualified at the start to meet the requirements of a particular VSS. We have sometimes noted these distinctions from measuring control groups in the samples and it is probable that fewer such qualified producers will be available in the future. Further, the price premiums that buyers pay for the major certifications ranged widely and it could be that the market signal that is sent by consumers (higher price) is often not directly transmitted to producers.²

Possible Consequences If consumers or external partners do not continue to fund the costs for new producers to participate, some positive impacts seen here may diminish or even reverse course. As the more capable and closer-to-market producers become fully integrated into the VSS, there will be additional costs for integrating the more distant and arguably less prepared producers. It is likely that some of the lessons learned from outcomes with more entrepreneurial producers may not fully apply to a second wave of farmers, a group whose economic and environmental sustainability may be more challenging.

Social Dimension

Farmers participating in initiatives promoting sustainability tend to have more training and more diverse training on a variety of topics such as good agricultural practices and environmental stewardship. In contrast, certified farmers were slightly less likely to



utilize protective gear when applying agrochemicals or prohibit their application by vulnerable persons.

We see some relationship between producer education and yields but this is unlikely to be attributable to certification. In one country example, certified producers relied less on child labor in cacao than conventional control producers but this area of work needs to be deepened. The perception of producers in terms of their social situation, economic situation, and environmental situation was consistently higher for producers that were part of an initiative in many of the countries sampled. The evolution of this finding will be among the more interesting ones to track over time.

However, there were occasionally unexpected low levels of social benefits. Food security was often better on certified farms, but not always, and it is worth noting that many certified producers faced significant challenges in meeting their food needs even when their income was higher than that of conventional producers. The indicators of crop diversification and resource use efficiencies can shed more light on this issue moving forward. We found that Producer Organizations offer a very diverse range of services and, recognizing the value of their good governance for both producers and the community, COSA is refining a tool specifically to better assess and understand Producer Organizations and their impacts. Within this process, we are evaluating the lessons of our experience and initiating new collaborations with experts and relevant institutions to integrate best practices from around the world.

Caveats: While the certified farmers we sampled clearly get much more training and we note the valuable avoidance of some negative practices such as child labor, they do not appear to be consistently or substantially different than control farmers when measured for other indicators in the social dimension.

Possible Consequences: Key areas of work such as strengthening producer organizations, genderoriented inclusion (training, credit, land tenure), or preparing the next generation of farmers, are often left untended and thus reduce the chances of sustainable outcomes in the long term in many producer communities.

Environmental Dimension

The environmental practices and conditions found on farms that participate in sustainability initiatives tend to be somewhat better than those on conventional farms. They are more likely to use soil and water conservation measures such as soil cover, contour planting and terracing, drainage channels, and soil ridges around plants. We found more training in environmental practices and in one example, a three year study linked the training efforts of the initiative to the use of improved practices among Mexican farmers.

There is a positive relationship between productivity and environmental practices as well as between productivity and the more general environmental index. However, this is not linear and varies between the countries we sampled. We note considerable differences in renovation rates for productive trees between producers that are part of an initiative and those that are not. The renewal rate of perennial farm



plantings is an important point to consider when analyzing the economic data especially. Producers that are part of an initiative are also more likely to have higher levels of biodiversity that can lead to increased long-term viability.

Caveats: In a number of cases, we only see modest differences between those participating in initiatives and control groups. There may be several reasons for this that remain to be explored. These include the time lags between certification and noticeable environmental impacts or where projects started shortly before the surveys were conducted or that there may be insufficient incentives to make substantial environmental investments. As with any project it is also difficult to assess the larger regional or landscape-level impacts.

While better environmental stewardship in the form of conservation practices may correlate with yield, this is not always the case. Looking across several countries we see that the relationship between specific practices and higher yields can vary considerably.

Possible Consequences: As the realities in the field become apparent, there is some evidence of participation in training on good environmental practices and, if adopted, these practices may result in greater impacts that can be measured in the future. If we fail to understand and communicate where there may be correlations between environmental practices and positive incentives such as yield, well-being, or income it will be difficult to foster and support good environmental practices.

The Path Forward

It is not reasonable to expect that these initiatives – typically managed by modestly funded NGOs – will, in just a few years, single-handedly create the sustainable livelihoods, environment, and societies that billions of dollars of targeted aid from governments and development agencies have failed to achieve over the last five decades. As the metrics for measuring sustainability advance, becoming standardized and globally comparable, we already see several of these initiatives engaging COSA information to improve their ability to deliver the desired outcomes.

There are many paths to achieving sustainability, and for agricultural producers the fundamental routes must involve the optimization of productivity, the conservation of functional ecosystems, and the support of healthy social conditions. Measuring results, in a cost-effective and practical manner, is critical for effectively achieving these goals. This document highlights some of the main findings and lessons from COSA's recent work to develop and apply practical measurement tools.

The results presented are substantive but by no means complete and should therefore be considered as a window into the potential of the data now being gathered. Over time, this process will allow more rigorous impact analysis and hopefully inspire thoughtful and informed dialogue that can enhance more practical decision-making and help to make the future of agriculture a more sustainable one.. 6

Major Supporters

COSA benefits from diverse sources of support. Core funding and multi-year funding particularly from the Swiss Government (SECO) and The Ford Foundation enable COSA to establish the capacity to innovate and advance the field. Other supporters have invested in COSA to test and to evolve sustainability measurement systems.



As an organization, COSA is functionally designed to collaborate and we enthusiastically invite you to or participate at any level.



Learning together globally