



From Best Practices to Proven Impacts:

Expanding and Measuring Conservation Benefits of Agricultural Sustainability Standards in Tropical Production Landscapes

OUTCOMES REPORT FROM AN INTERNATIONAL CONGRESS
FOR CONSERVATION BIOLOGY FOCUS GROUP

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SUMMARY:

As agricultural sustainability standards grow in number and scale, better evidence is needed to understand and improve the role of standards and certification as a conservation strategy.

In July 2013, more than 20 conservation scientists and representatives of standards bodies, conservation NGOs, agricultural financiers, and others convened for a day-long workshop to identify new opportunities to generate such evidence. Workshop participants identified that while a range of useful evaluation methods and tools already exists, they must be more systematically applied and incorporated into projects, programs, and standards. Participants agreed that there is considerable scope for collaboration within the standards community and with researchers to align methods and indicators, and to combine basic data across all major certification systems with rigorous in-depth studies to provide a much more robust composite portrait of outcomes and impacts.

To accomplish this will require new efforts to support the standards community in collecting reliable data at scale; more systematic coordination between researchers and users of evaluation research results; and significantly increased funding for priority evaluation research.

Two immediate next steps emerging from the workshop are: 1) to publish a journal article articulating the mandate and defining an agenda for improved evaluation; and 2) to develop concept proposals to advance the needs stated above.

Workshop overview

As the adoption of agricultural sustainability standards accelerates, there is a growing “evaluation gap” in understanding the outcomes and impacts of these standards. This gap is especially pronounced with regard to biodiversity and environmental conservation benefits, and, if not remedied, may limit the credibility and effectiveness of these standards as a conservation strategy. On July 21, 2013, more than 20 conservation scientists and representatives of standards bodies, conservation NGOs, agricultural financiers, and others convened for a day-long workshop in Baltimore to explore opportunities for

new collaborations to assess and scale-up conservation benefits of agricultural sustainability standards.

The event had three principal objectives:

1. To contribute to defining a 5 – 10 year evaluation and research agenda that would generate robust evidence to support the assessment and continual improvement of sustainability standards as a conservation strategy. This agenda will be presented in an article to be submitted to a scientific journal such as *Conservation Biology*.
2. To synthesize innovations, best practices, and experiences in evaluating the conservation impacts of agricultural sustainability standards for tropical commodities (focusing on palm oil, soy, and cocoa), drawing heavily on work conducted under the Biodiversity and Agricultural Commodities Program (BACP).
3. To identify potential new collaborations or partnerships between the research community and other key stakeholders involved in sustainability standards (e.g., standard-setting bodies, companies, civil society, and governments) to develop shared monitoring, evaluation, and research approaches focused on biodiversity and ecosystem service outcomes.

This brief report summarizes the day’s proceedings and presents the set of tangible next steps proposed during the event. **Interested individuals are invited to contribute to these next steps and participate in ongoing collaboration building from the workshop. For more information, please contact workshop co-organizer Jeff Milder at jmilder@ra.org.**

The workshop was designed to share perspectives on needs, opportunities, and barriers to building more effective systems to evaluate and scale-up conservation benefits from agricultural sustainability standards. Following an **opening plenary**, morning sessions focused on both the **demand** for specific conservation benefits (and credible evidence of benefits) and the **supply** of such evidence from recent monitoring and research initiatives as well as new tools and methods. An afternoon plenary explored what it would take to build fruitful **new collabora-**

The Rainforest Alliance works to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices and consumer behavior.

EcoAgriculture Partners’ mission is to support diverse individuals and organizations at the local, national and international levels to create and sustain eco-agriculture landscapes worldwide.

Cover photo by
Charlie Watson

Left

An Ivorian farmer prepares a young cocoa seedling for planting.

photo by Noah Jackson

Right

A tea farmer at the Coonoor estate in India.

photo by Noah Jackson



For the purpose of this workshop, agricultural sustainability standards were defined as sets of social, environmental, and/or economic criteria put forth to define and encourage sustainable practices in agricultural production, processing, trading, and consumption. These standards are typically adopted voluntarily and paired with compliance verification systems, traceability systems, and sustainability labels ('eco-labels') that help differentiate sustainable products in the marketplace.

tions to advance conservation benefits of agricultural sustainability standards. Afternoon breakout groups enabled small-group discussion about next steps to advance this agenda. Brief summaries of each session are provided below; please see page 7 for a summary of proposed next steps.

OPENING PLENARY: The mandate and aims for this workshop

Opening presentations by the workshop's two organizers (Jeff Milder [the Rainforest Alliance] and Lee Gross [EcoAgriculture Partners]) introduced the context for the workshop and emphasized:

- Agriculture is believed to be more damaging to nature than any other sector of human activity. Sustainability standards seek to mitigate these impacts through improvements at the farm and landscape levels, as well as transformation of broader market and governance systems.
- Voluntary sustainability standards include third-party standards (e.g., Rainforest Alliance, UTZ Certified), commodity roundtables (e.g., RSPO, Bonsucro), internal company standards, and other codes of conduct (e.g., principles for sustainable finance).
- It was clarified that sustainability standards are often considered in terms of "standards systems," which include the standard itself; the certification, verification, and traceability mechanisms; and support provided to certified farmers. Although it is important to clarify which of these intervention(s) are being evaluated, in reality these elements, and their impacts, may be difficult to separate for the purpose of evaluation and research.
- Over just the last five years, agricultural sustainability standards have moved from niche to mainstream for key tropical commodities includ-

ing cocoa, tea, and palm oil, with very rapid growth rates.

- But there has been little systematic or rigorous evaluation of such systems, especially with regard to conservation impacts.
- To evaluate sustainability standards requires an approach that is both broad (encompassing the range of variability in farming systems and contexts) and deep (providing the requisite level of methodological rigor delivering credible evidence).
- The Biodiversity and Agricultural Commodities Program (BACP) has invested heavily in developing new tools and systems to evaluate conservation impacts of sustainable production in the palm oil, soy, and cocoa sectors, at scales ranging from individual farms to entire regions.

PLENARY 1: Characterizing the demand for conservation benefits and evidence thereof

This session highlighted perspectives from organizations with different sustainability-related objectives regarding: a) what kinds of conservation benefits each organization expects sustainability standards to deliver; and b) what kind of evidence of impact is needed relative to the organization's goals. Speakers included Audrey Lee (Roundtable on Sustainable Palm Oil), Mike Mascia (WWF-US), Jesse Last (Root Capital), and Bruce Wise (International Finance Corporation).

Key points from the presentations and ensuing discussion included:

- RSPO seeks to move from an approach that is more process-based to one that is more outcome-based. Six key desired outcome areas

Left
Workers on an Indonesian oil palm plantation
photo by James Morgan

Right
The blue-crowned motmot makes its home in shade coffee farms.
photo by Thomas Enderlin



associated with implementation of the standard are: 1) zero deforestation, including of peatlands; 2) zero greenhouse gas emissions; 3) landscape level cumulative impacts of certification; 4) replacement of highly hazardous pesticides; 5) water and soil conservation; and 6) improved transparency and avoidance of forced labor.

- As part of the shift to an outcome focus, RSPO is collaborating with researchers on a multi-scale sustainability assessment project called SEnSOR, which will inform the standard review process. RSPO is also setting up a publicly accessible system for sharing spatial data on RSPO certificate locations and High Conservation Value areas.
- Sustainability standards should be assessed in terms of “impact” (which should be objectively measurable) rather than “success” (which is value laden).
- WWF seeks to understand certification impacts at a relatively broad scale (landscape or mill level), including both intended and unintended consequences of certification.
- There is no single “standard of evidence” for credible evaluation of conservation strategies, but in general, evidence on impacts of conservation strategies is far less rigorous than that being developed in other fields, such as medicine or education. Nevertheless, evidence can be generated that is robust enough to be useful to inform decisions now being made.
- To generate a more robust evidence base, opportunities for experimental and quasi-experimental evaluations (e.g., Before-After-Control-Impact design) should be embedded within projects and programs. Recognize that it generally takes three years to carry out a good impact assessment, including a year to design it. However, promoting an “open source” approach to sharing methods can help shortcut this first step.

- As an organization focused foremost on social development—but interested in environmental sustainability as a contributor to human wellbeing and a desired set of outcomes in its own right—Root Capital seeks cost-effective opportunities to measure the environmental impact of its agricultural loan portfolio. It currently relies significantly upon sustainability certifications as a proxy for environmental benefits.
- The International Finance Corporation applies its Performance Standards (PS) to ensure that its lending supports sustainable practices, including conserving biodiversity, maintaining benefits from ecosystem services, and promoting sustainable management of natural resources.
- The revised PS adopted in 2012 place greater emphasis on client supply chains, and rely substantially on sustainability standards to demonstrate compliance with the PS and address social and environmental risk. Over time, the focus of standards (and evaluation thereof) will need to shift beyond adoption of better practices to understanding the outcomes that result from these practices.

PLENARY 2: **Tools, methods, and opportunities for supplying the sought-after evidence**

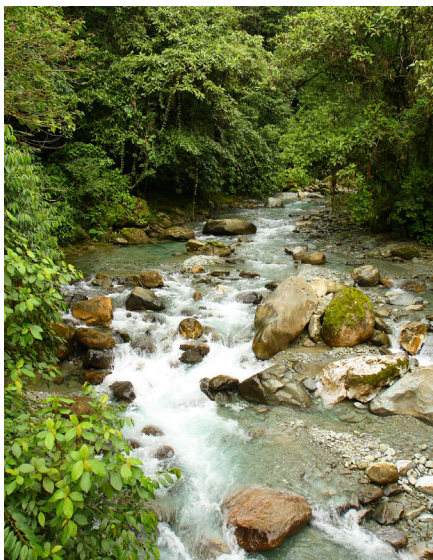
Many exciting new tools, methods, and best practices have been developed to assess impacts of agricultural sustainability standards. This session highlighted a sample of these from Allen Blackman (Resources for the Future), Elizabeth Kennedy (Rainforest Alliance), Franklin Holley (WWF-US), Oswaldo de Carvalho (Instituto de Pesquisa Ambiental da Amazônia), and Ariana Alisjahbana (World Resources Institute).

Left
A healthy stream
in Sumapaz
National
Park, near a
Colombian coffee
farm.

*photo by
David Dudenhoefer*

Right
Landscape of
sugar production
and forest con-
servation lands in
Tanzania.

*photo by
Jeff Milder*



Key points:

- Environmental impacts of sustainability certification can be assessed by comparing outcomes with certification to outcomes under a counterfactual scenario in which the producer did not become certified. Counterfactual scenarios cannot actually be observed, but must be constructed. Reasonable counterfactual scenarios can be created by employing experimental randomized designs, or using a variety of quasi-experimental methods, such as matching certified and non-certified producers to construct a control group.
- Evaluation research on environmental impacts of certification is quite limited, and most of what has been published did not include a reasonable counterfactual scenario, potentially limiting its credibility.
- Evaluation should be incorporated more strongly into certification-related projects to help generate a more robust evidence base.
- The Rainforest Alliance has developed a suite of field methods to evaluate certification outcomes related to natural ecosystems, water quality, livelihoods, and farmer practices at the field level. These methods are used in concert to assess multiple dimensions of sustainability and the synergies and tradeoffs among them.
- Also relative to the Rainforest Alliance's evaluation work, use of mobile devices in the field and a flexible cloud-based data management system facilitate scaling-up and standardizing field data collection to support evaluation across many different crops and geographies.
- The Field-to-Market initiative is a collaboration among farmers, agribusiness, food and retail companies, universities, and conservation organizations to develop outcome-based metrics and encourage continuous improvement for sustainable agriculture.
- The initiative includes a "Fieldprint Calculator" that farmers and supply chain actors can use to assess and monitor sustainability outcomes. Metrics are also calculated for specific supply chains, and nationwide for the United States. These tools serve a combination of functions, including sustainability assessment, farmer outreach, and encouragement of better practices.
- The Fieldprint Calculator is expected to be expanded to include a biodiversity measure (habitat potential index) within about a year.
- In Brazil, field assessment of mammal species (e.g., via camera traps) has been combined with remote sensing evaluations of land cover change to assess the future viability of keystone species in soybean-producing landscapes. Tools such as these could be applied in the context of certification to evaluate larger-scale, longer-term impacts on species and habitat.
- WRI has led the development of the Forest Cover Analyzer and Global Forest Watch to facilitate forest monitoring, increase transparency, and incentivize companies to conserve forests. The Forest Cover Analyzer displays the location and timing of forest cover change, current extent of forestlands, and legal classification of land.
- These tools could be applied in the context of certification to monitor tree cover change in certified concessions (e.g., oil palm). Nevertheless, although it is possible to monitor deforestation overall, it is more difficult to attribute specific changes (e.g., reduced rates of deforestation) to a specific sustainability standard.

Left

Peruvian farmer
Juan Pinchi
harvests cocoa
pods.

*photo by
David Dudenhoefer*

Right

Cocoa nursery in
Côte d'Ivoire.

*photo by
Merriweather
Hardie*



PLENARY 3: **Opportunities and challenges for new collaborations**

Presentations from Kristen Komives (ISEAL Alliance) and Ethan Budiansky (World Cocoa Foundation) gave perspectives from existing initiatives that are seeking to align sustainability standards and stakeholders in support of common aims, including impact evaluation.

Key messages included:

- As part of the ISEAL Alliance's mission to strengthen sustainability standards for the benefit of people and the environment, the organization has established best practices for impact evaluation (the 2010 Impacts Code) for the various sustainability standards that are ISEAL members. It is also leading an effort to develop common evaluation frameworks, indicators, and a collective research agenda to demonstrate poverty-related impacts of sustainability standards.
- One key lesson learned from this work to date is that common evaluation approaches are best pursued through a dedicated and relatively small core group, and that such initiatives require strong convening and facilitation functions, which must be resourced.
- The World Cocoa Foundation is developing a platform called CocoaMAP to track the global effort to achieve sustainability in cocoa production. This platform is meant to facilitate the collection of time-series data using standardized tools at the ground level, covering social, environment/biodiversity, and economic/productivity themes. Funding from BACP is supporting the development of biodiversity indicators as part of this tool.

- The mandate for CocoaMAP reflects a convergence of interests from industry, civil society, government, and donors to provide better data in support of mission-driven aims as well as supply chain sustainability.
- Key challenges to build out CocoaMAP include building trust to enable data sharing, ensuring consistent quality and comparability of data collected in different contexts, building consensus on common indicators and methodologies, creating alignment with existing indicators and systems, and managing a system with many partners possessing different levels of capacity.

BREAKOUT 1: **Discussion of the journal article**

Small groups discussed a partial draft (annotated outline) of a paper entitled "An Agenda for Monitoring, Evaluating, and Scaling-up Conservation Benefits of Agricultural Sustainability Standards in Tropical Production Landscapes." This paper is one of the workshop outputs. Participants generally agreed on the value of putting forth a statement of need and a proposed agenda along the lines of the draft paper.

Key suggestions included: 1) clarifying the intent of the three-tiered evaluation framework presented; 2) elaborating the research agenda in greater detail; 3) contextualizing the paper within the sub-field of conservation evaluation and evidence-based conservation; 4) clarifying the intended audience for the paper and the proposed actions to be taken; and 5) considering the value in focusing on more specific biodiversity outcomes such as species and habitat conservation. Based on the discussion, interested group members will contribute to preparing a full draft of the article during fall 2013.

Left
Cocoa beans
drying in Côte
d'Ivoire
*photo by
William Crosse*

Right
Harvested cocoa
pods at farm in
Côte d'Ivoire.
*photo by
William Crosse*



The Biodiversity and Agricultural Commodities Program (BACP) is a multi-donor initiative with contributions from the Global Environment Facility, the International Finance Corporation, and the governments of Italy, Japan, Luxembourg, the Netherlands, New Zealand, and Norway. BACP seeks to reduce the threats posed by agriculture to biodiversity of global significance by transforming commodity markets for cocoa, palm oil, soy, and sugar.

BREAKOUT 2: Synthesizing insights from the Biodiversity and Agricultural Commodities Program

This session consisted of participants from organizations that have received grants under BACP, including the Roundtable on Sustainable Palm Oil, World Resources Institute, Instituto de Pesquisa Ambiental da Amazônia, the Rainforest Alliance, World Cocoa Foundation, Zoological Society of London, International Finance Corporation, and EcoAgriculture Partners. The session began with a discussion to review the monitoring and evaluation methods and tools developed through BACP-funded projects, from field to landscape scales. The group then discussed their experiences in promoting the adoption of such tools by key stakeholders such as standards bodies and agribusiness companies.

Key lessons and issues identified by the group included:

- Investment in good tools is important, but further resources are needed for training and promoting adoption. How will this be resourced?
- To collect data at the field level in the context of agricultural supply chains (i.e., absent dedicated research funding) requires having very simple tools. These must be developed in full view of the specific capacities and limitations of companies and field staff.
- Monitoring and evaluation will not be achieved systematically if it remains voluntary on a company-by-company basis. There need to be some compulsory requirements coming from the standard setting bodies, which may even include recommendations or requirements to use specific monitoring tools.
- Deforestation can be tracked regionally, but it is difficult to attribute changes in deforestation

rates to sustainability standards (or to quantify the portion of this change that is attributable to standard systems).

- Commitments and decisions related to sustainability standards happen very quickly; therefore, evidence is needed now.
- Evaluation systems and metrics should be designed to meet corporate needs, in a way that can help influence management decisions. With this in mind, systems should include a focus on key risks of interest to companies, such as water and climate change.

As a next step, EcoAgriculture Partners (as the BACP Monitoring & Evaluation Unit) agreed to compile a draft document in the coming months, to be circulated among the group for review, synthesizing lessons learned from BACP-funded monitoring and evaluation efforts together with insights from other scientific literature to make recommendations for improved monitoring frameworks, systems and procedures for assessing biodiversity impacts within the targeted BACP commodities (soy, palm oil, cocoa, and sugar). This report is expected to be finalized in early 2014 and, when ready, will be available via the BACP website (<http://www.ifc.org/bacp>).

BREAKOUT 3: Ideas and concepts for future collaboration

The final breakout group provided space for brainstorming on potential projects or collaborations that could advance the objectives discussed in the workshop. The discussion raised a number of important points and questions, as well as some tangible ideas. These are summarized in sequence below.

Key points and questions:

- In setting an agenda for evaluating impacts of sustainability standards, it is important to

clarify the need for research specifically on the impacts of certification, versus research to better understand the effects of different types of “best practices” contained within the standards. The latter is a much broader project and might be more appropriately carried out through ongoing research efforts in agronomy, agricultural economics, ecology, etc.

- In defining a research and evaluation agenda, it will also be helpful to clarify the audiences for research, e.g., standard-setting bodies, donors/funders, companies, civil society and advocacy organizations, and/or the research community and research institutions.
- Recognize that many of the methods likely to be most useful in a certification context will be simple and inexpensive, useful for informing management decisions but not necessarily advancing the cutting edge of science. The private sector is one of the primary audiences for evaluation data, and most industry decision-makers have very limited training or time to parse and interpret complex data.
- In setting up research, it is important to define the alternative to certification—for example, is certified cocoa being compared to uncertified cocoa, to other cropping systems, or to native forest?
- One priority need is for research that can define the extent to which the practices within sustainability standards can serve as reliable proxies for specific outcome-level results.
- In-depth place-specific evaluation research that uses quasi-experimental methods is critical, but given the variability in agricultural practices and contexts, it is often difficult to generalize very much from these place-specific studies.
- When is it appropriate to pursue crop-specific sustainability metrics versus generic metrics that can be applied and “rolled-up” across many different crops and geographies?
- When is it possible to analyze results at landscape or regional levels? How will evaluation questions differ in a smallholder context versus a plantation context, or for crops amenable to “mill-scale-level” analysis.

- Some of these issues could be pursued through the Convention on Biological Diversity (e.g., Programme of Work on Incentive Measures).

Potential projects, collaborations, and next steps:

- Build on the draft background paper for this workshop to finish developing the research agenda. In doing so, refer to priority research questions identified in the 2012 report entitled “Toward Sustainability: The Roles and Limitations of Certification”.
- Recognizing the importance of funding to catalyze broader-scale evaluation and research efforts and collaborations, use the paper being developed as a springboard for fundraising proposals.
- Likewise, use the research agenda to clarify common interests with industry (e.g., food and retail companies, finance institutions) that are relying on sustainability standards for business decision-making or achievement of sustainability goals.
- Explore linkages with long-term research initiatives or networks on changing environmental and agricultural systems as a way to monitor certification impacts.
- Create a “hub” for researchers and the sustainability standards community to identify priority research projects and share information on ongoing research to encourage focus on the most critical topics, avoid duplication, and synthesize findings across multiple studies when appropriate.
- Promote collaboration among standards systems to facilitate the collection of core data on certification location and attributes in standard, comparable ways.
- Raise money for a sustainability standards “research funding facility” in which companies, donors, and others would contribute resources to a common pool. These funds would be dispersed to support evaluation research priorities. This mechanism would reduce the possibility of bias or perception thereof when an interested party (such as a food company) wishes to support evaluation research to help improve the evidence base on sustainability standards.

Interested individuals are invited to contribute to these next steps and participate in ongoing collaboration building from the workshop.

For more information, please contact workshop co-organizer Jeff Milder at jmilder@ra.org

ANNEX 1: WORKSHOP AGENDA

From Best Practices to Proven Impacts:

Expanding and Measuring Conservation Benefits of Agricultural Sustainability Standards in Tropical Production Landscapes

Sunday, July 21, 2013 | Sheraton Inner Harbor Hotel, Baltimore, Maryland

- 8:30 Coffee
- 9:00 Participant introductions; framing presentations and discussion of the day's focus and objectives
- 10:00 The "demand side" – what conservation benefits do stakeholders expect the standards to deliver, and what is the specific demand for data and evidence on such benefits? Presentations will highlight perspectives from the private sector, civil society, and standards bodies.
 - Four 10-min presentations followed by comments and discussion
- 11:00 BREAK
- 11:30 The "supply side" – what tools and methods are available and under development from the scientific and technical communities that may be suitable for evaluating effects of agricultural eco-standards? Presentations will span a range of approaches including remote sensing methods, mobile applications, formula-based "footprinting" calculators, field methods, use of taxonomic proxies for understanding biodiversity impacts, and others.
 - Six 10-min presentations followed by comments and discussion
- 1:00 LUNCH (provided)
- 1:45 New collaborations to link demand & supply – two framing presentations will illustrate what kinds of collaborations may be possible and worthwhile, giving as an example an existing effort to forge similar collaboration around livelihood impacts of sustainability standards.
- Before breaking into smaller groups, facilitators will introduce the three anticipated outputs:
1. Journal article on the research and evaluation agenda for agricultural eco-standards
 2. Synthesis of innovations and needs for evaluating biodiversity impacts of tropical commodities (focus on palm oil, soy, and cocoa)
 3. Project concept(s) for forthcoming collaboration among research scientists, standards bodies, and sustainability-minded private sector entities
- 2:30 Small group discussions (participants self-select to participate in one of the above sessions)
- 4:30 BREAK
- 4:45 Concluding plenary session:
 - Summary of key messages, conclusions, and next steps from each of the three small groups
 - Comment and discussion on each group's messages and follow-on plans
 - Agreement on next steps
- 5:30 Adjourn

ANNEX 2: PARTICIPANT ROSTER

Participant	Organization	Country
Allen Blackman	Resources for the Future	USA
Ariana Alisjahbana	World Resources Institute	USA
Audrey Lee	Roundtable on Sustainable Palm Oil	Malaysia
Bruce Wise	International Finance Corporation	USA
Elizabeth Kennedy	Rainforest Alliance	USA
Ethan Budiansky	World Cocoa Foundation	USA
Franklin Holley	WWF-US	USA
Henk van Rikxoort	UTZ certified	Netherlands
Jeffrey Milder	Rainforest Alliance	USA
Jesse Last	Root Capital	USA
Kristen Komives	ISEAL Alliance	Belgium
Laura Ostenso	World Cocoa Foundation	USA
Lee Gross	EcoAgriculture Partners	USA
Margaret Arbuthnot	WWF-US	USA
Marion Pfeifer	Imperial College London	UK
Melissa Mark	Columbia University	USA
Michael Godfrey	Rainforest Alliance	USA
Michal Zrust	Zoological Society of London	Indonesia
Michael Mascia	WWF-US	USA
Nigel Noriega	Sustainable Innovation Initiatives	Trinidad and Tobago
Oswaldo Carvalho	Instituto de Pesquisa Ambiental da Amazônia (IPAM)	Brazil
Valeria Boron	Durrell Institute for Conservation and Ecology (University of Kent)	UK

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