COMMODITY IMPACT INDICATORS FOR BIODIVERSITY: LEARNING FROM RECENT EXPERIENCE WITH STANDARDS & CERTIFICATION SYSTEMS

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CBD CoP 12, Business & Biodiversity Forum

October 12, 2014

THE ANATOMY OF STANDARDS AND CERTIFICATION

STANDARD-SETTING (e.g., principles, criteria, and indicators)

TRAINING (e.g., producer & enterprise training and support)

ASSURANCE (e.g., verification / certification, traceability)

CLAIMS (e.g., eco-labels, B2B designations or differentiation)

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VOLUNTARY STANDARDS AND THEIR KIN

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3RD PARTY

ROUNDTABLES / MSIs

1st PARTY (company)

SECTOR INITIATIVES

Gov't?

Global Commodity Impact Indicators?

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MONITORING & INDICATORS

"Meta-questions" for evaluation and continuous improvement:

and similar structured approaches to SCP

Do standards systems protect biodiversity and deliver other social and environmental public goods?

and similar structured approaches to SCP

Do standards systems benefit producers, companies, and other value chain actors?

and similar structured approaches to SCP

How could standards systems be adapted and improved to increase benefits to public and private actors, biodiversity conservation at full scale?

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Gov't?

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HOW FAR ALONG ARE WE?

No longer true!

"[the empirical evidence base provides] at best … very weak evidence for the hypothesis that 'sustainable' certification has positive socioeconomic or environmental impacts"

A. Blackman and J. Rivera. 2010. Environmental certification and the Global Environment Facility: A STAP advisory document. GEF-STAP.

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1. BETTER, MORE RAPID BENCHMARKING

TABLE 3.9 AVERAGE COVERAGE OF SSI ENVIRONMENTAL INDICES FOR EACH VOLUNTARY SUSTAINABILITY INITIATIVE.

	Soil	Waste	Synthetic inputs	Water	Biodiversity	GMO prohibition	Greenhouse gas	Energy	Total average
IFOAM	100%	100%	100%	100%	100%	100%	100%	100%	100%
SAN/RA	80%	60%	60%	70%	93%	100%	80%	80%	78%
ProTerra	90%	87%	67%	80%	27%	100%	60%	40%	69%
RSB	100%	100%	40%	85%	67%	0%	100%	50%	68%
PEFC	100%	67%	67%	75%	100%	100%	33%	0%	68%
ETP	100%	100%	67%	100%	33%	0%	33%	100%	67%
GLOBALG.A.P.	100%	100%	67%	100%	73%	0%	33%	20%	62%
Fairtrade	60%	53%	53%	50%	60%	100%	47%	60%	60%
FSC	100%	67%	67%	45%	100%	100%	0%	0%	60%
RTRS	100%	100%	60%	45%	67%	0%	40%	0%	51%
UTZ	80%	33%	60%	95%	13%	0%	33%	60%	47%
RSPO	40%	87%	60%	30%	33%	0%	40%	40%	41%
4C Association	20%	27%	47%	30%	13%	100%	13%	40%	36%
Bonsucro	90%	53%	0%	20%	33%	0%	27%	40%	33%
CmiA	30%	20%	67%	15%	0%	100%	0%	0%	29%
BCI	60%	20%	100%	25%	20%	0%	0%	0%	28%

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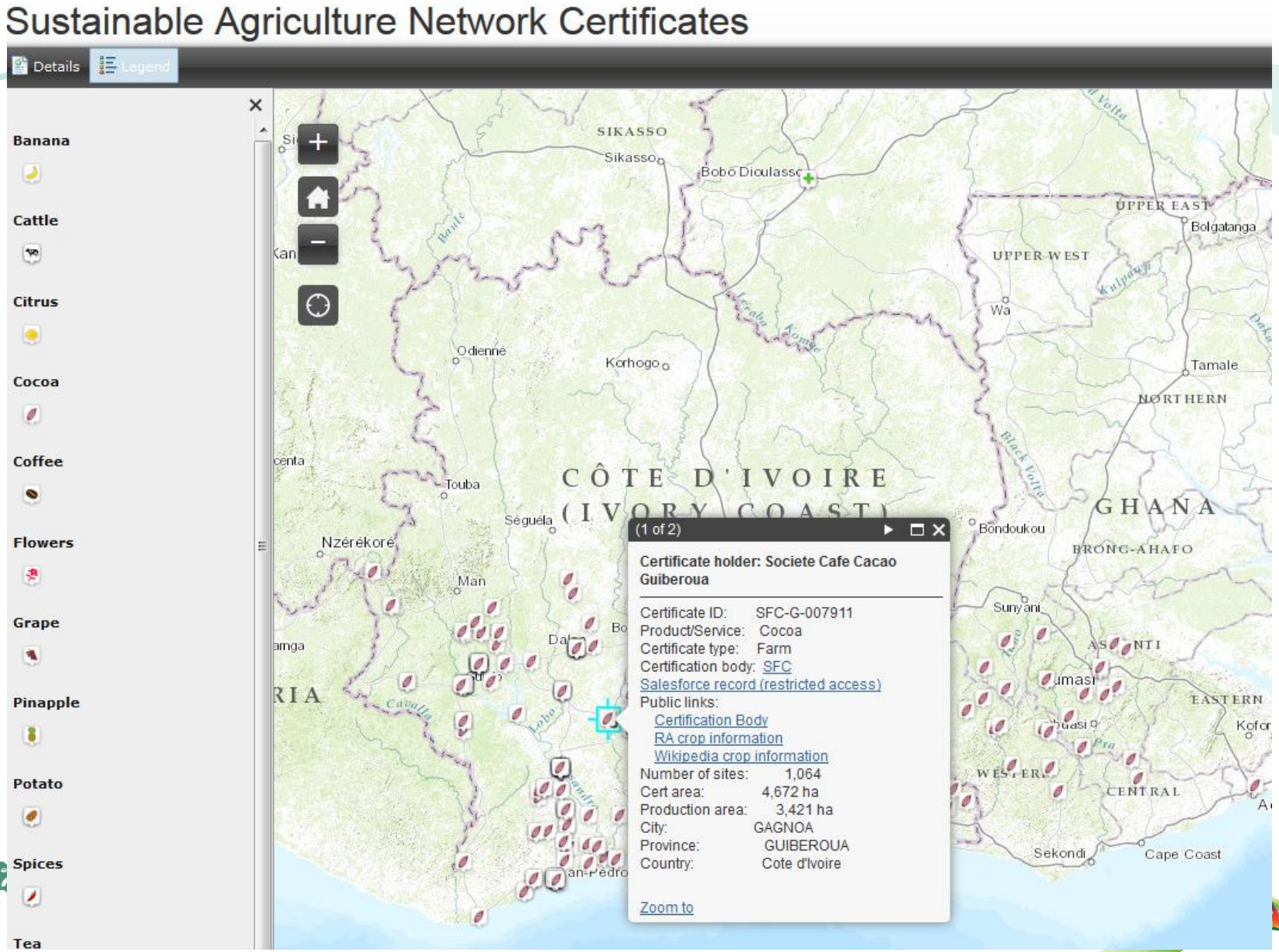
Source: Potts et al. 2014, *State of Sustainability Initiatives* report.

2. SYSTEM-WIDE MONITORING OF BASIC INFORMATION



3. DEVELOPMENT OF COMMON INDICATORS & COMMON REPORTING

Towards a Shared Approach for Smallholder Performance Measurement:

Common indicators and metrics

Public draft for review and feedback

Sustainable Food Laboratory · Ford Foundation · Seas of Change · COSA Committee On Sustainability Assessment · Rainforest Alliance · Centre for Development Innovation · Wageningen UR · iseal alliance

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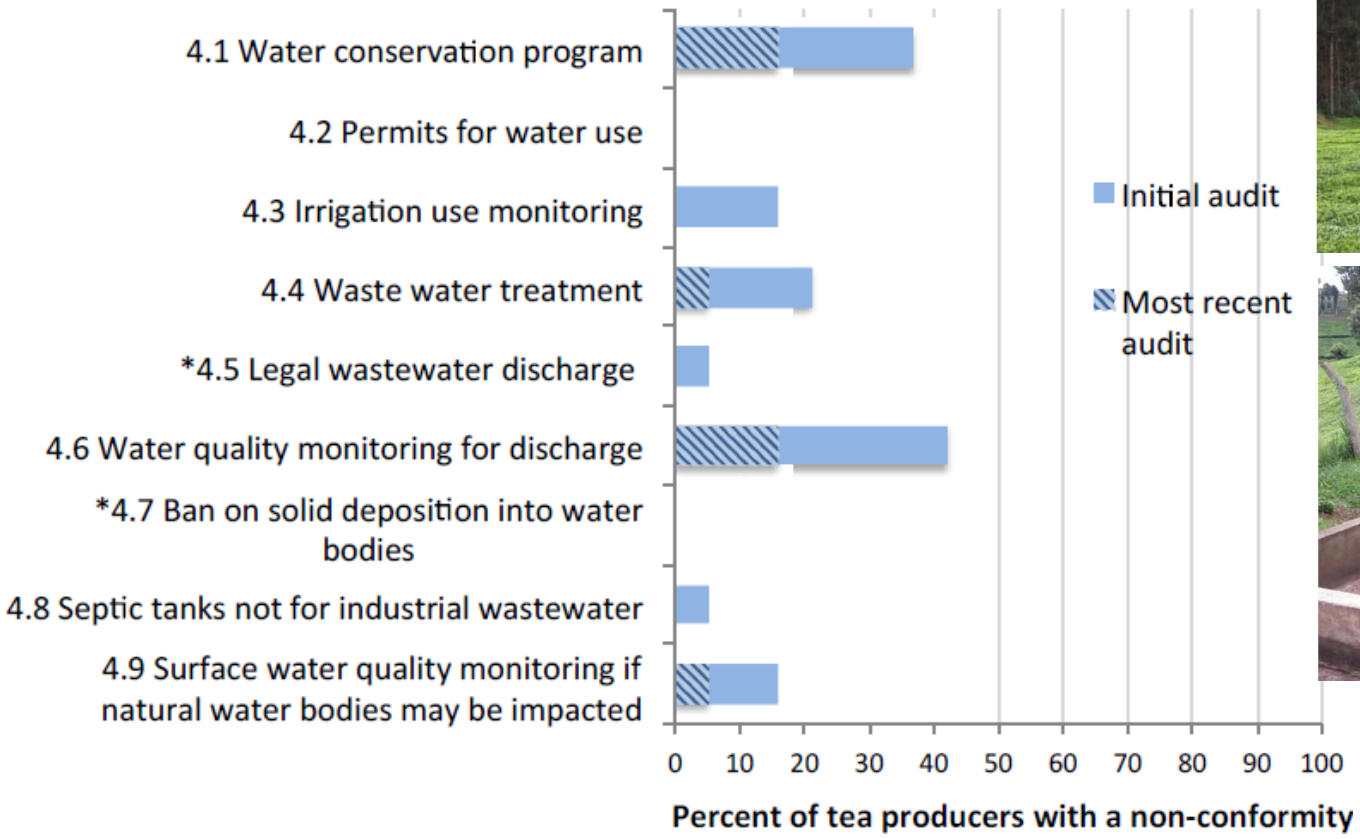
Demonstrating and Improving Poverty Impacts:

Common core indicators

Are producer groups and producers making progress along the outcome pathways identified in the conceptual framework?			
Guiding questions	**Indicator metric**	**Source of data**	**Level**
Resource management: Are resources well managed? Is management of natural resources improving?	Hectares in conservation management areas or set-asides (indicator still in development)	Certified entity / group member	1 (if through compliance system); 2
	Tree cover density and diversity (indicator still in development)		
	Observed erosion rating or Erosion risk level (indicator still in development)		
	Waste management (indicator still in development)		
	Efficiency of water use (indicator still in development)		
	Reduction in use of highly hazardous substances (indicator still in development)		
	Efficiency of fertilizer use (indicator still in development)		
Production: Are yields and productivity increasing? How do yields and productivity compare to industry and regional averages? Is quality improving? Does production meet buyers expectations for quality?	Rough estimate of yield (in kg per hectare) at certificate holder level over last calendar year – using production estimates and reported cultivation area	Calculation	1
	Reported yield (in kg per hectare) at certified entity level over last calendar year – using reported actual production and reported cultivation area	Calculation	1 (ICS) or 2
	Verified yield (in kg per hectare) at certified entity level over last calendar year – using verified production and measured cultivation area	Calculation	3
	Per cent of total production covered by standard rejected by buyers for defects or poor quality	Certificate holder	1

4. SYSTEMATICALLY TRACKING PRACTICE ADOPTION AT FINE SPATIAL & TEMPORAL SCALE

Rainforest Alliance Certified tea farms in Malawi, Rwanda, and Tanzania



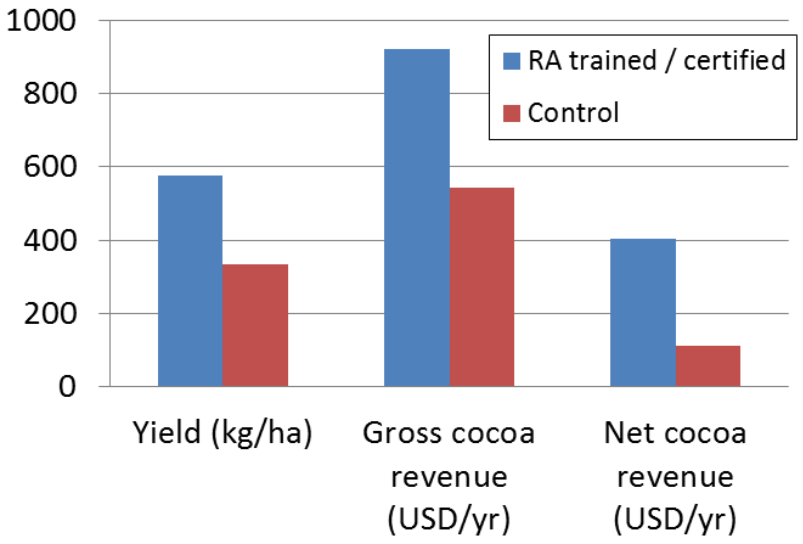
Source: D. Newsom and P. Bartemucci. 2014. Continuous improvement in action: An analysis of tea certification audit reports from Malawi, Rwanda and Tanzania. Rainforest Alliance, New York.

5. GROWING QUANTITY, RIGOR, AND RELEVANCE OF IMPACT STUDIES

Macroinvertebrate, stream integrity and water quality characteristics: RA-certified vs. noncertified coffee farms in Colombia

Variable	Units	Water Quality	Cundinamarca		
			Certified Average	Noncert. Average	Proba-bility[14]
SVAP	index	↑	8.8*	6.56*	< 0.001
Vegetation cover	%	↑	74.00*	57.08*	0.011
BMWP	index	↑	118.46*	71.73*	< 0.001
EPT	# species	↑	6.12*	4.34*	0.040
ELPT	# species	↑	6.23*	3.76*	0.009

Productivity, gross revenue, and net revenue: cocoa farms in Côte d'Ivoire

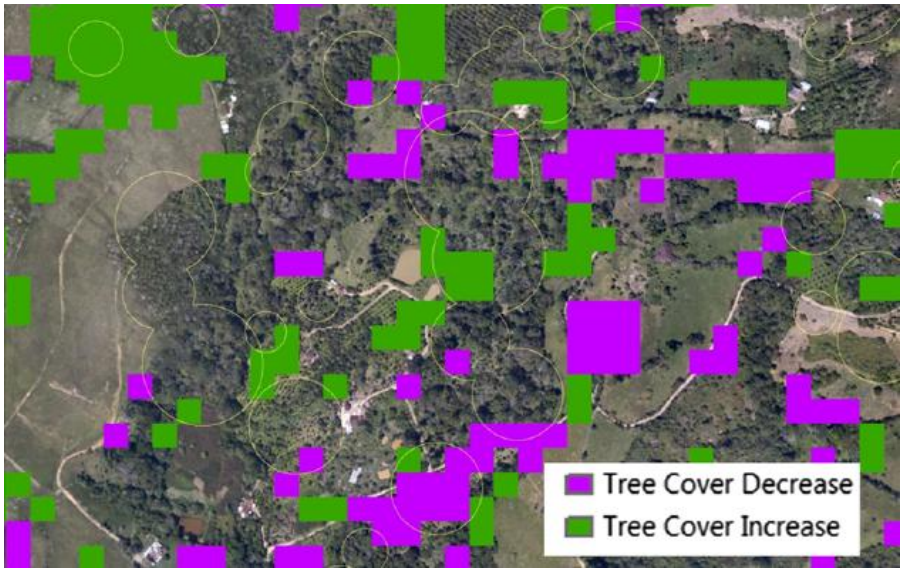


$p < 0.05$ for all comparisons

Sources:
Colombia: Hughell, D. and D. Newsom. 2013. Impacts of Rainforest Alliance certification on coffee farms in Colombia. Rainforest Alliance, New York.
Côte d'Ivoire: Committee on Sustainability Assessment. 2012. COSA survey of Rainforest Alliance certified farms.

6. BEGINNING TO CONSIDER LANDSCAPE & WATERSHED LEVEL EFFECTS

- RA-certified coffee farms in Santander, Colombia, increased levels of tree cover significantly more than non-certified farms; patterns detectible from satellite at landscape scale (Rueda et al. 2014)
- In Ethiopia, natural forests with RA-certified coffee were less likely to be deforested than forests without forest coffee or with non-certified coffee (Takahashi & Todo 2013).



Santander, Colombia (2003-2009 change)

Sources: Rueda, X., Thomas, N.E. & Lambin, E.F. 2014. Eco-certification and coffee cultivation enhance tree cover and forest connectivity in the Colombian coffee landscapes. Regional Environmental Change.
Takahashi, R. & Todo, Y. 2013. The impact of a shade coffee certification program on forest conservation: a case study from a wild coffee forest in Ethiopia. J. Environ. Manage. 130, 48-54.

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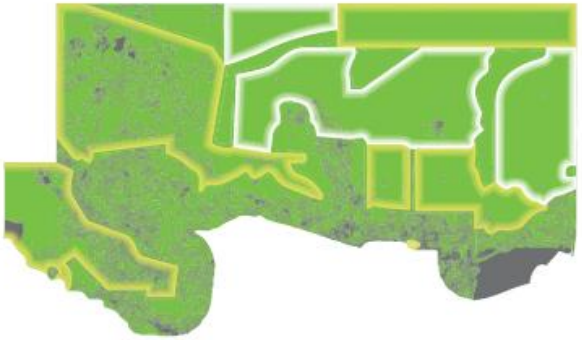
7. USING PRODUCTION-UNIT LEVEL DATA TO UNDERSTAND CONSERVATION IMPACT AT BROADER SCALES

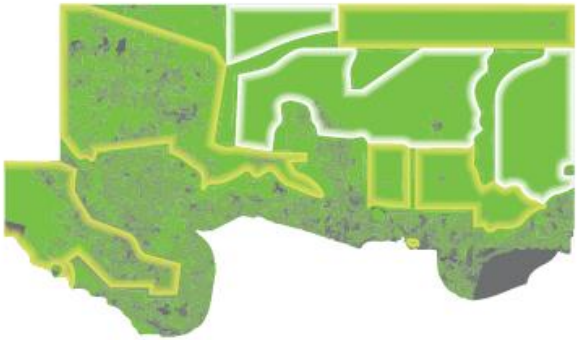
Deforestation in El Petén, Guatemala

forested areas
non-forested areas
certified concession boundaries
protected area boundaries

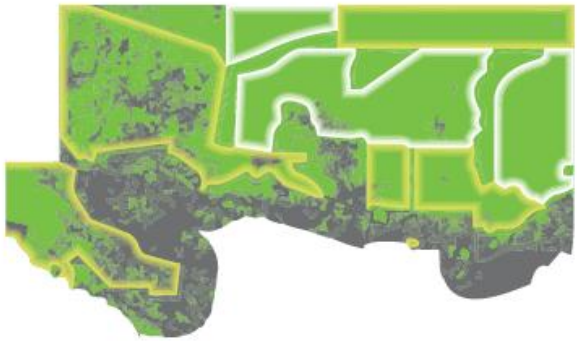
1987



2000



2007



Over a 20-year period, FSC certified forest units experienced substantially lower rates of deforestation than nearby gazetted protected areas.

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Source: Hughell, D. and R. Butterfield. 2008. Impact of FSC Certification on Deforestation and the Incidence of Wildfires in the Maya Biosphere Reserve. Rainforest Alliance, New York.

TAKING STOCK – THE VIEW FROM LATE 2014

PROGRESS

- Better basic monitoring – who, where, what
- Consensus on best practice in evaluation research, and a growing number of studies
- Incipient collaboration toward sector-wide monitoring and reporting
- Strong demand and interest for results data

GAPS

- Data consistency, quality, and accessibility are still works in progress
- Evaluation research is still spread very thin – difficult to generalize
- Collaboration based on goodwill; few mechanisms or systems to support it
- Research and practice are weakly linked

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MOVING AHEAD – A ROADMAP?

Essay

An Agenda for Assessing and Improving Conservation Impacts of Sustainability Standards in Tropical Agriculture

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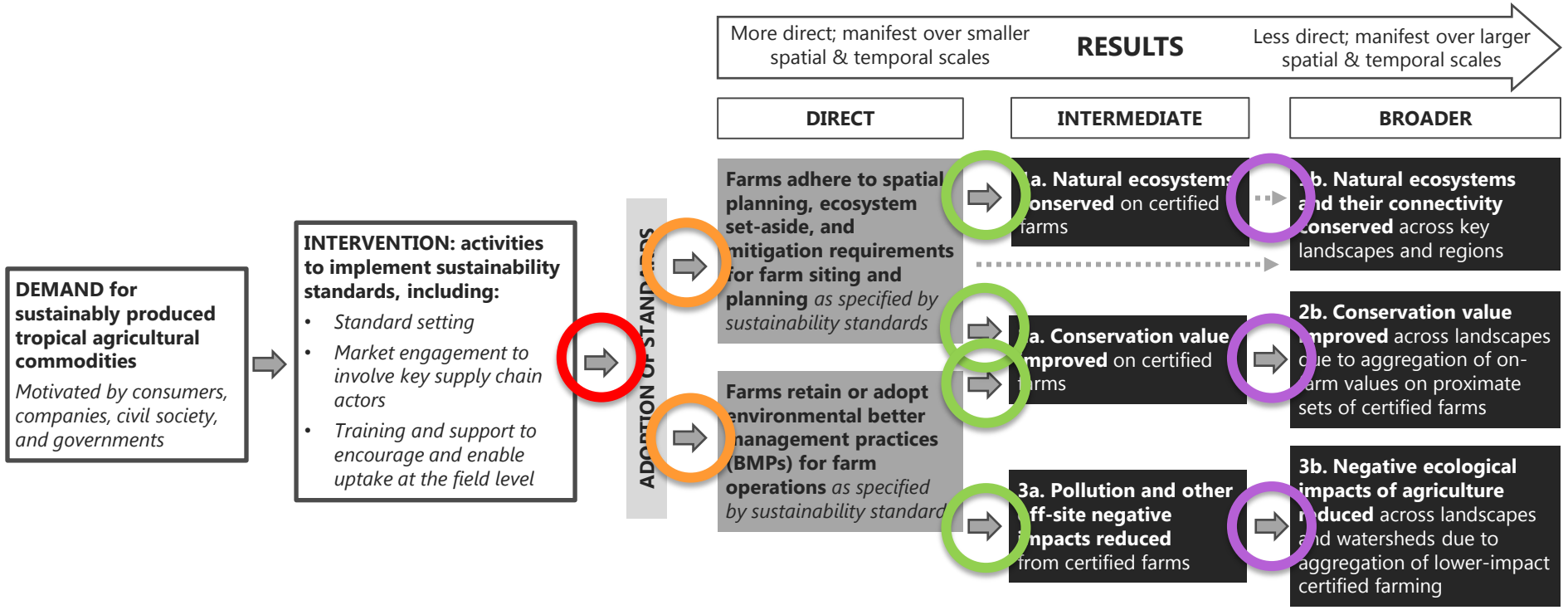
MONITORING APPROACH REFLECTS WELL-DEFINED INTERVENTIONS & IMPACT HYPOTHESES



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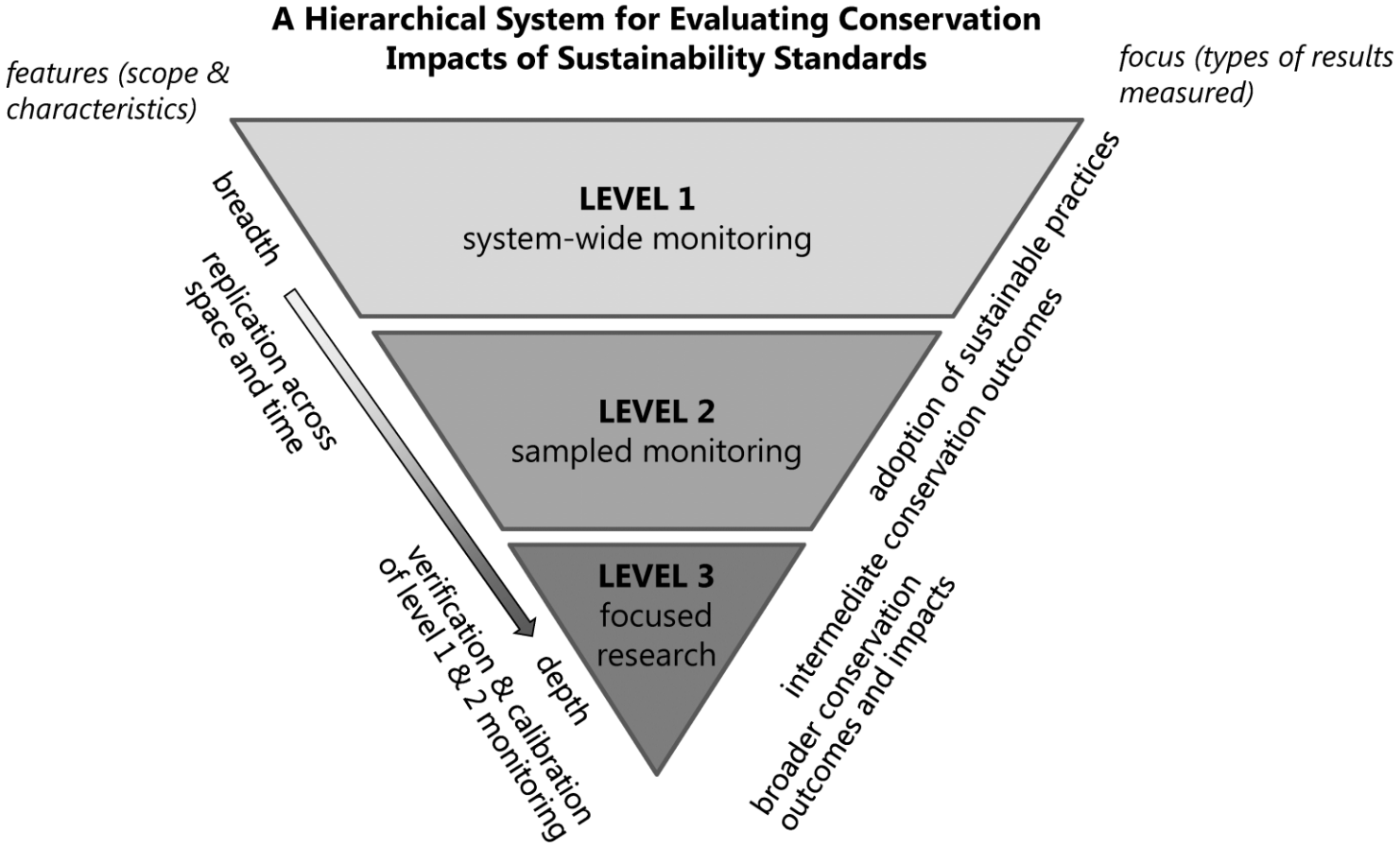
Source: Milder et al. in press. An agenda for assessing and improving conservation impacts of sustainability standards in tropical agriculture. *Conservation Biology*.

CAPTURE BOTH BREADTH AND DEPTH



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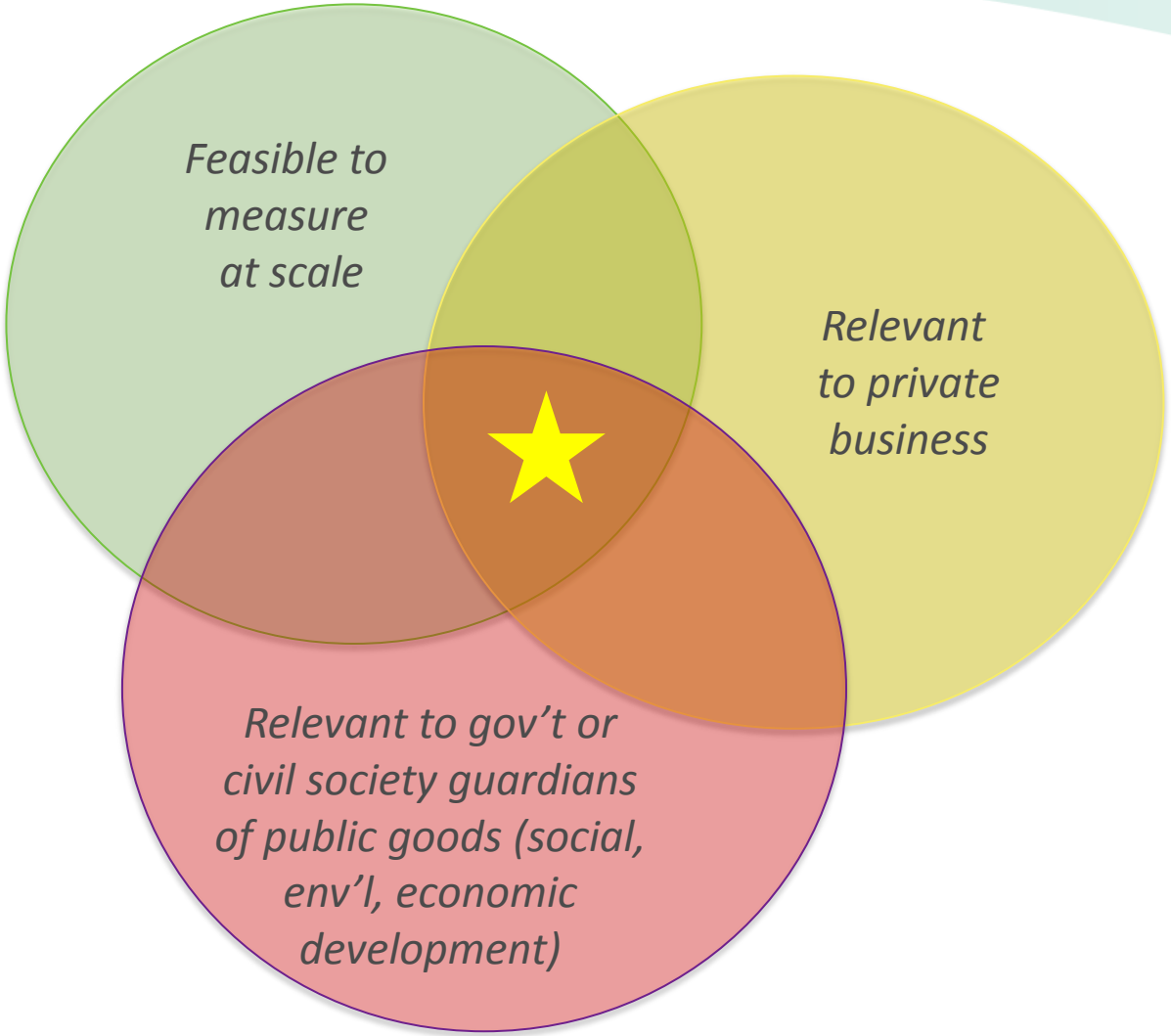
INDICATORS ARE FEASIBLE & MEANINGFUL …
… TO THE RIGHT PEOPLE



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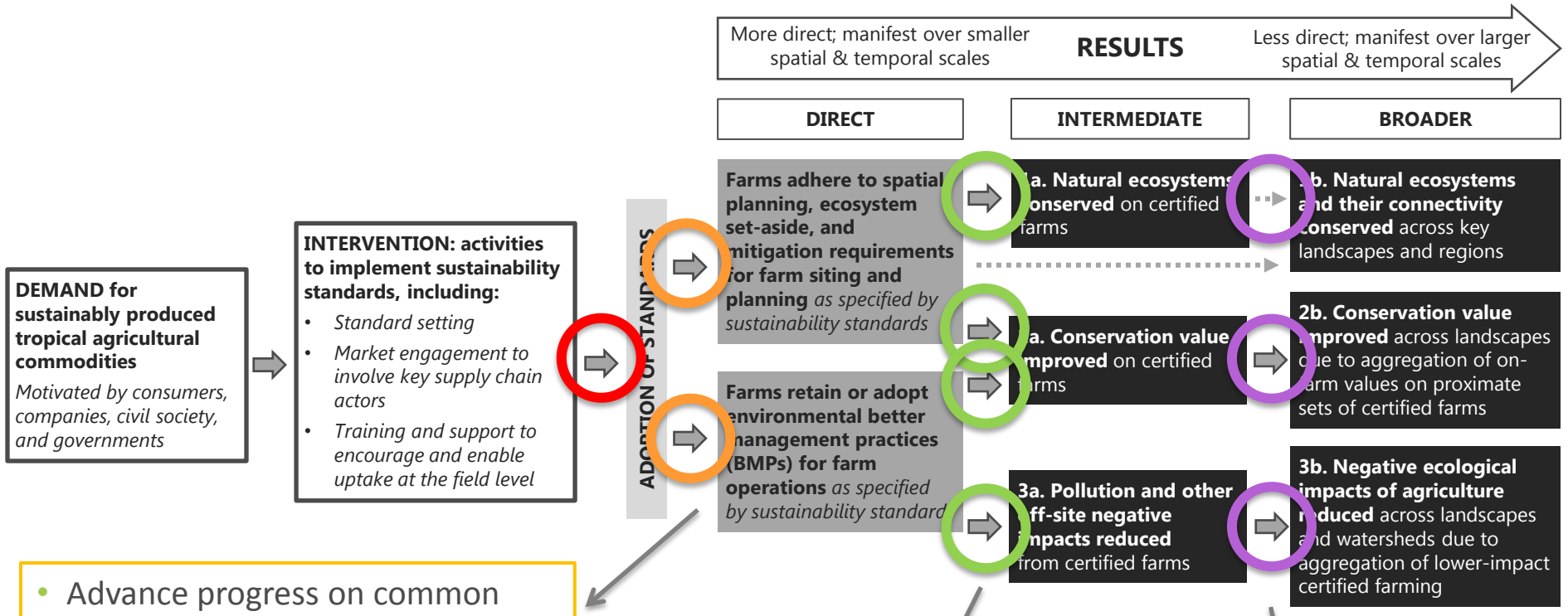
AN AGENDA TO MAKE IT HAPPEN



- Advance progress on common indicators & reporting
- Promote full implementation of system-wide monitoring

- Research platform for co-building evidence base
- Data sharing mechanism

- Develop common metrics to enhance data comparability
- Establish regional monitoring efforts to track commodity impacts relative to specific issues or threats

THANK YOU