

The Paris Agreement and the opportunity for the Brazilian coffee sector

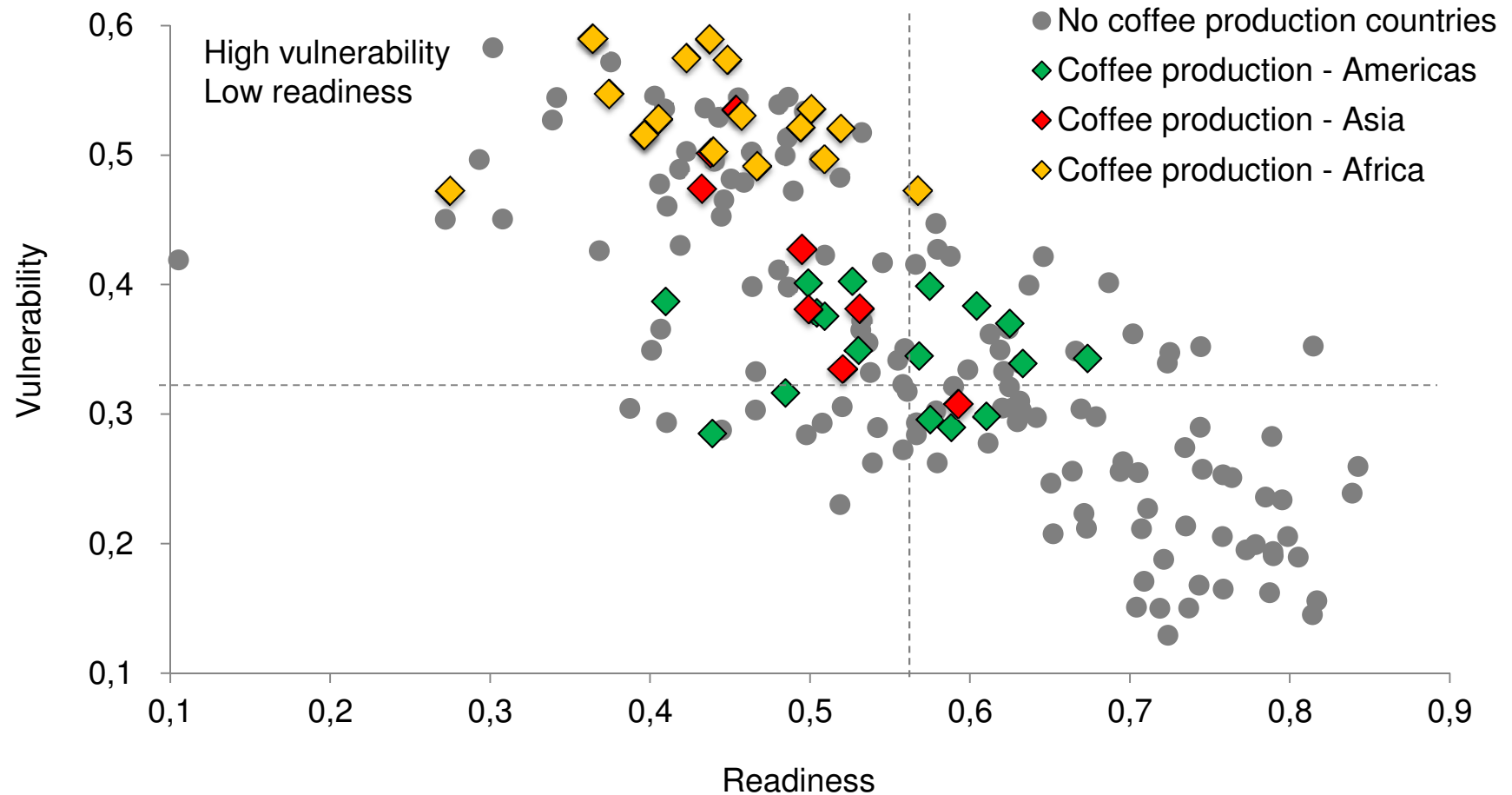
Yara International Coffee Event
12 May 2016

Hortensia Solís
+31 621141912
hortensia@viajeconcafe.com



Photo credit: Ecorazzi

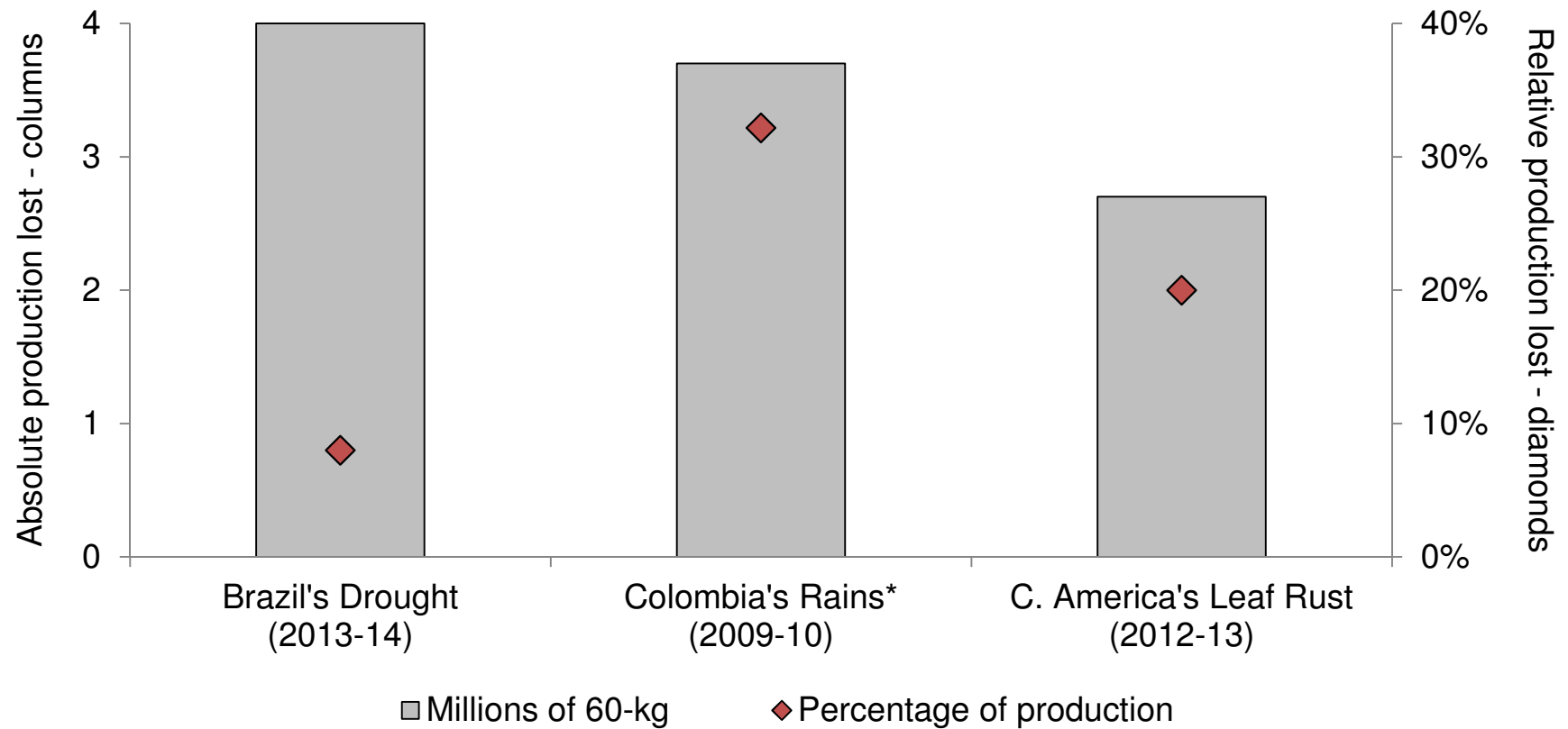
Coffee-producing countries have high vulnerability and low readiness



Quadrant lines were selected by ND-GAIN climate adaptation experts.
Source: ND-GAIN index, 2014.

Recent extreme weather events show scale of impacts on coffee production

Impact of recent weather events on coffee production

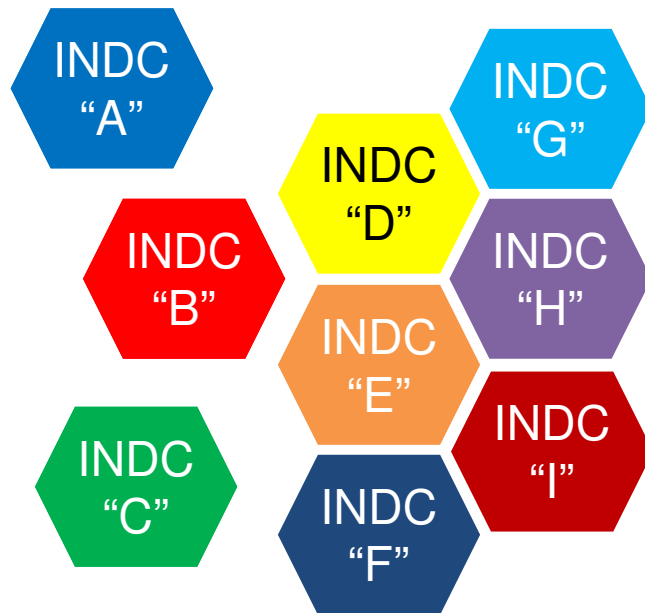


* Colombia's heavy rains were from 2008 to 2010.

Sources: ICO, 2014; OXFAM, 2012; CENICAFE, 2012.

Paris Agreement is “historic” due to contributions by countries and long-term targets set

Contributions
by countries

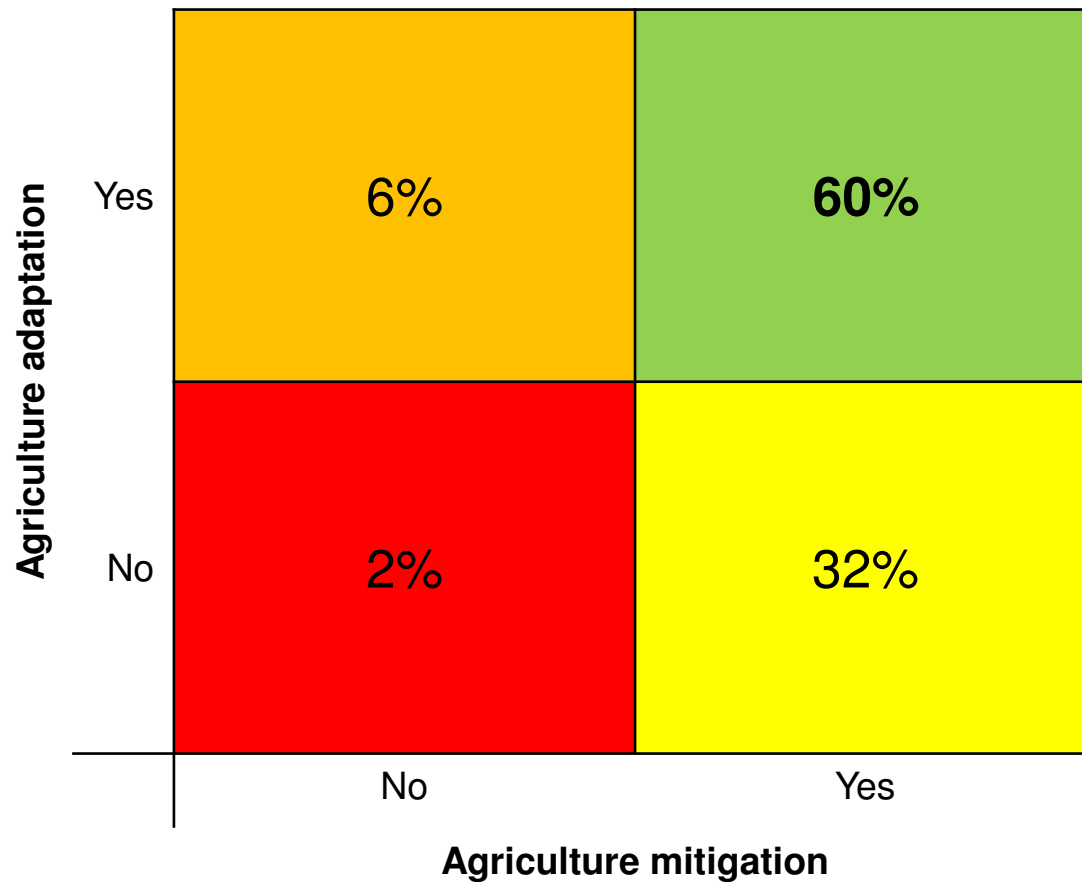


Agreement
on targets and
mechanism to
check progress



Most coffee-producing countries mentioned adaptation and mitigation for agriculture in their INDCs

Percent of coffee production in countries that mention agriculture in INDCs



8 countries (34% of coffee production) specifically mentioned the coffee sector in their INDCs

Sources: UNFCCC, WRI, ICO, CGIAR, Hortensia Solis analysis. Note: Nicaragua and Panama had not submitted INDCs by 28 Nov. * Total coffee production in 2014: 143,000 bags of 60 Kg.

Paris agreement also includes temperature goal and long-term targets for emissions



- **Temperature goal**
 - “well below 2°C”
 - “pursue efforts to limit the temperature increase to 1.5°C”

Impact on coffee: 1°C of temperature increase reduces coffee yields by 137 Kg/ha



- **Long-term targets**
 - Reach an emissions peak by 2050
 - Achieve balance between emissions and emissions sinks during 2050-2100

Impact on coffee: sector need to contribute to mitigation across its value chain

During Paris, new industry initiatives were launched by NGOs and coffee roasters

Fairtrade Carbon Credits



Fairtrade Carbon Credits from projects that deliver mitigation and adaptation benefits across chain:

Producer organizations: 

Project facilitators: 

Traders: 

End buyers: 



“Make coffee the first sustainable agricultural product in the world”

“We are a dynamic and diverse coalition from across the sector, united in the belief that it is possible to grow coffee while ensuring the prosperity and wellbeing of farmers and conserving forest, water and soil.”

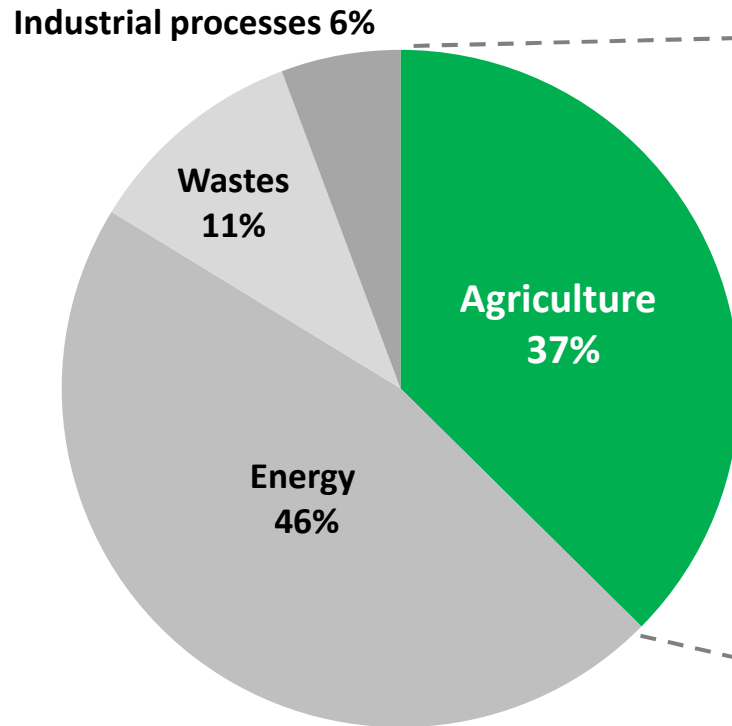
Costa Rica Coffee NAMA: first, we identified and brought together stakeholders



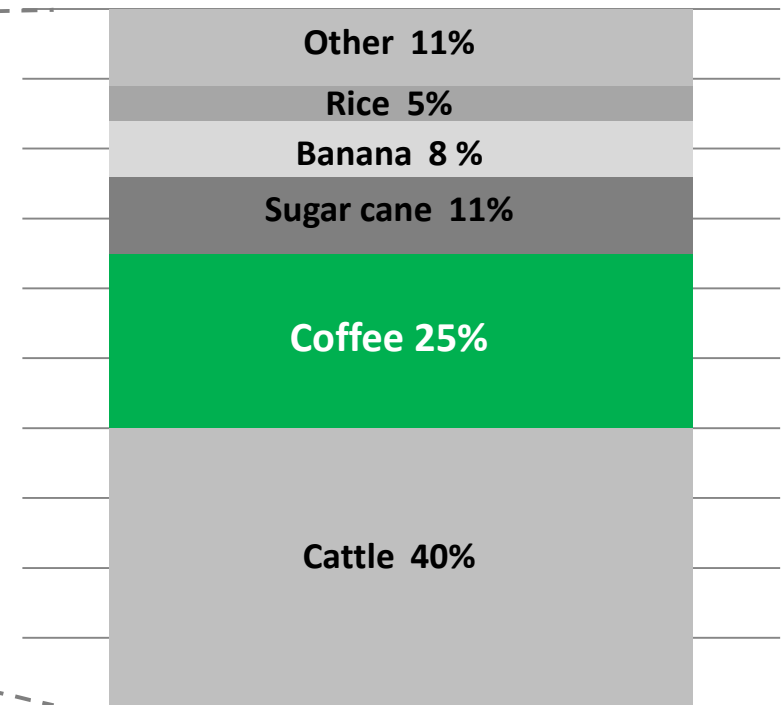
Source: Hortensia Solis

Costa Rica Coffee NAMA: next we built a case for action connected with the national goal

Costa Rican GHG Emissions (2005)

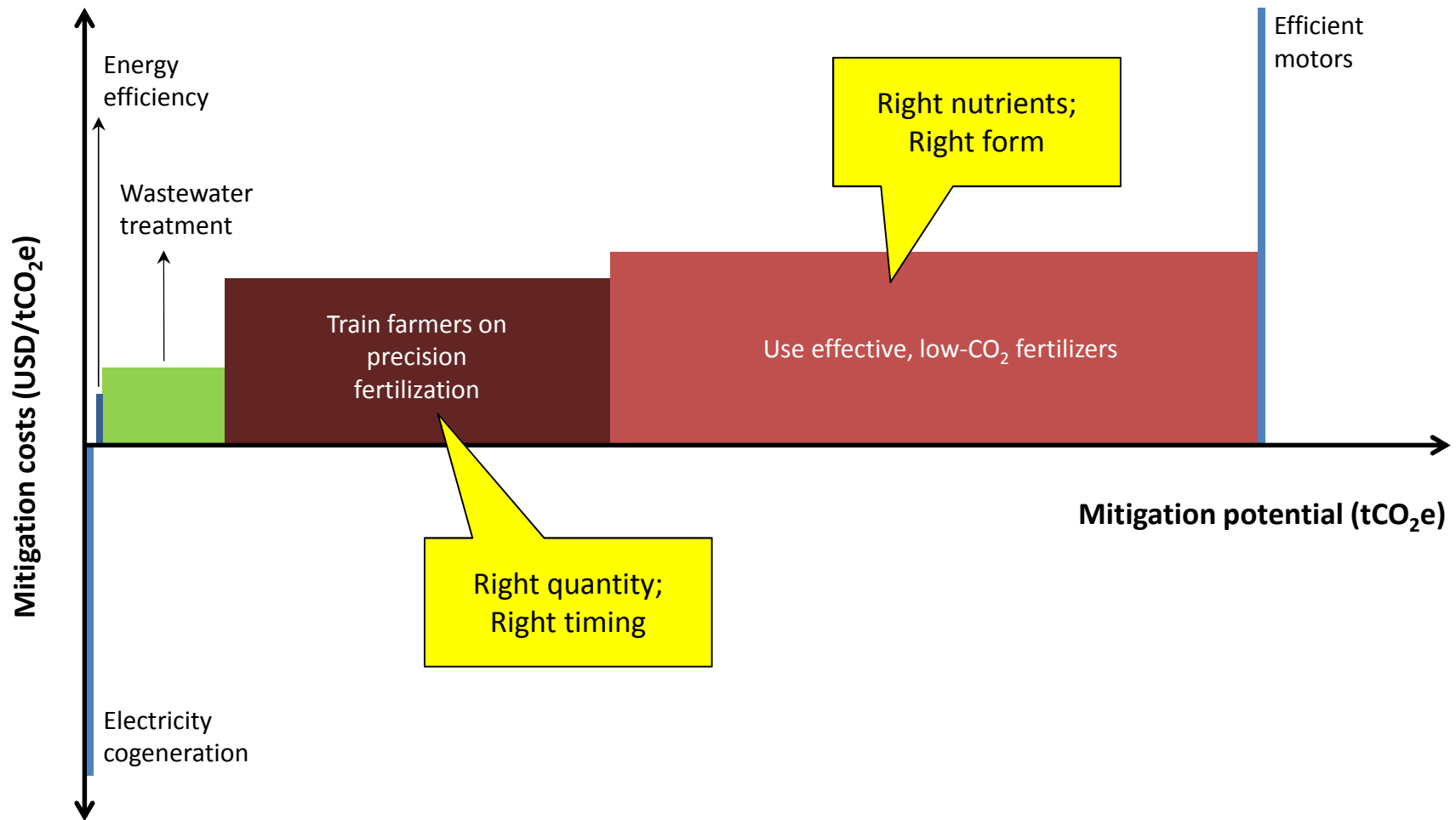


Coffee ≈ 10% of national emissions



Sources: IMN, 2008 and MAG, 2009

Costa Rica Coffee NAMA: then we focused the efforts on fertilizer practices



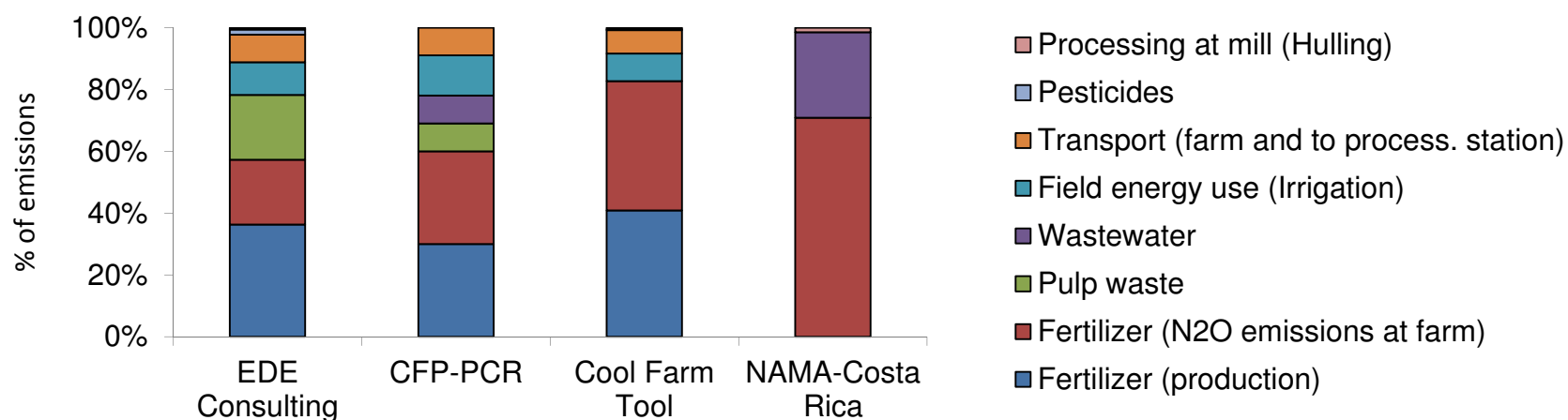
Source: Hortensia Solis

Costa Rica Coffee NAMA: Recently, it has received international financing

NSP project region	Zona los Santos, Valle Central and Valle Occidental, Costa Rica
NSP target group	Up to 6,000 producers and 50 mills, 25,000 ha
NAMA target area	93,000 hectares of coffee
NSP duration	5 years (2015–2019)
NAMA duration	10 years

NAMA Facility funding	€ 7 million
NAMA investment	US\$ 30 million
Responsible ministries	Ministry of Environment and Energy (MINAE) Ministry of Agriculture and Livestock (MAG)
Implementing partners	ICAFE, BCIE, Fundecooperación para el Desarrollo Sostenible

Vietnam: comparison of GHG estimation methodologies and action in INDC



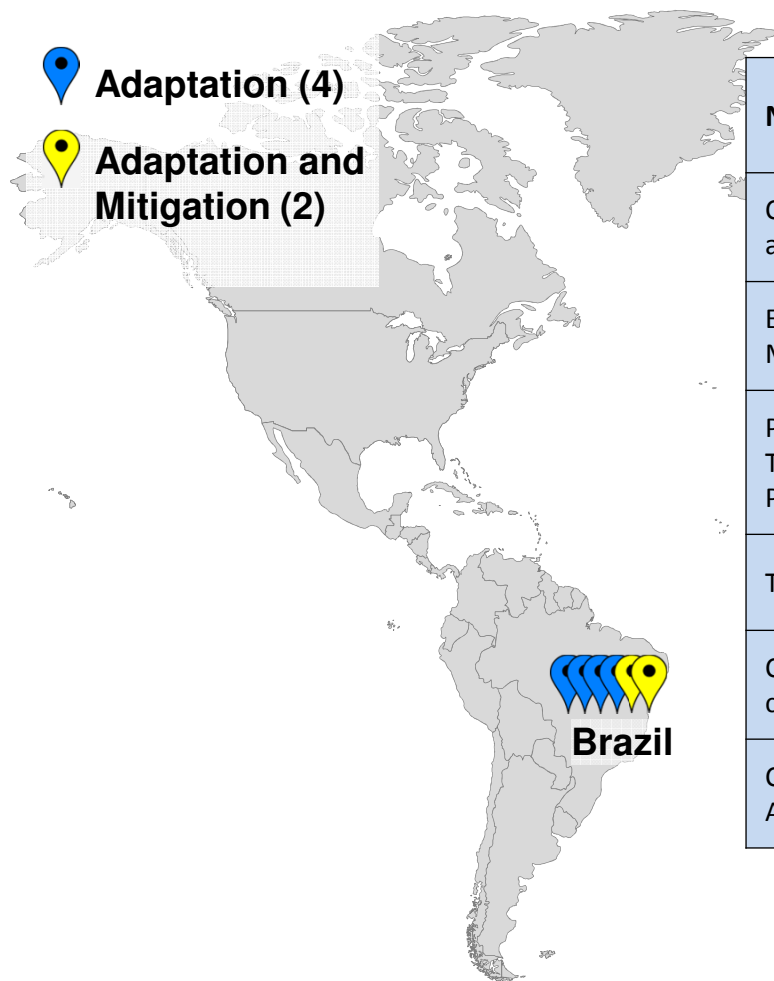
Advocacy work together with Climate & Coffee led to coffee sector actions being included in national climate plan (INDC) of Vietnam:

Phương án giảm nhẹ KNK trong nông nghiệp

Phương án giảm nhẹ	Tiềm năng giảm nhẹ - triệu tấn CO ₂ tđ
Các phương án khi có hỗ trợ quốc tế	39,43
A7. Sử dụng phân SA	3,2
A8. Tái sử dụng phế phụ phẩm cây trồng cạn	0,29
A9. Tưới khô ướt xen kẽ và hệ thống canh tác lúa cải tiến	7,02
A10. Bón than sinh học (Biochar)	18,80
A11. Cải thiện khẩu phần thức ăn gia súc	1,75
A12. Cải thiện chất lượng và dịch vụ giống, thức ăn và vật tư	0,41
A13. Cải tiến công nghệ trong nuôi trồng và xử lý chất thải nuôi trồng thủy sản	1,21
A14. Cải thiện công nghệ chế biến và xử lý chất thải chế biến nông lâm thủy sản	3,36
A15. Cải tiến công nghệ tưới cho sản xuất cà phê	3,39

Sources: Hortensia Solis; Coffee & Climate, 2015; Vietnam government, 2015.

Brazil's coffee sectors has already conducted studies and pilot projects to understand climate impacts



Name of the project	Adaptation	Adaptation& Mitigation
Coffee and Climate Change: Impacts and options for adaptation	X	
Empowering Small Scale Coffee Farmers Global Markets Climate Change Resistance	X	
Potential Economic Impacts of Global Warming on Two Brazilian Commodities, According to IPCC Prognostics	X	
The Sustainable Coffee Program	X	
Climatic changes impact in agroclimatic zoning of coffee in Brazil		X
Country Note on Climate Change Aspects in Agriculture		X

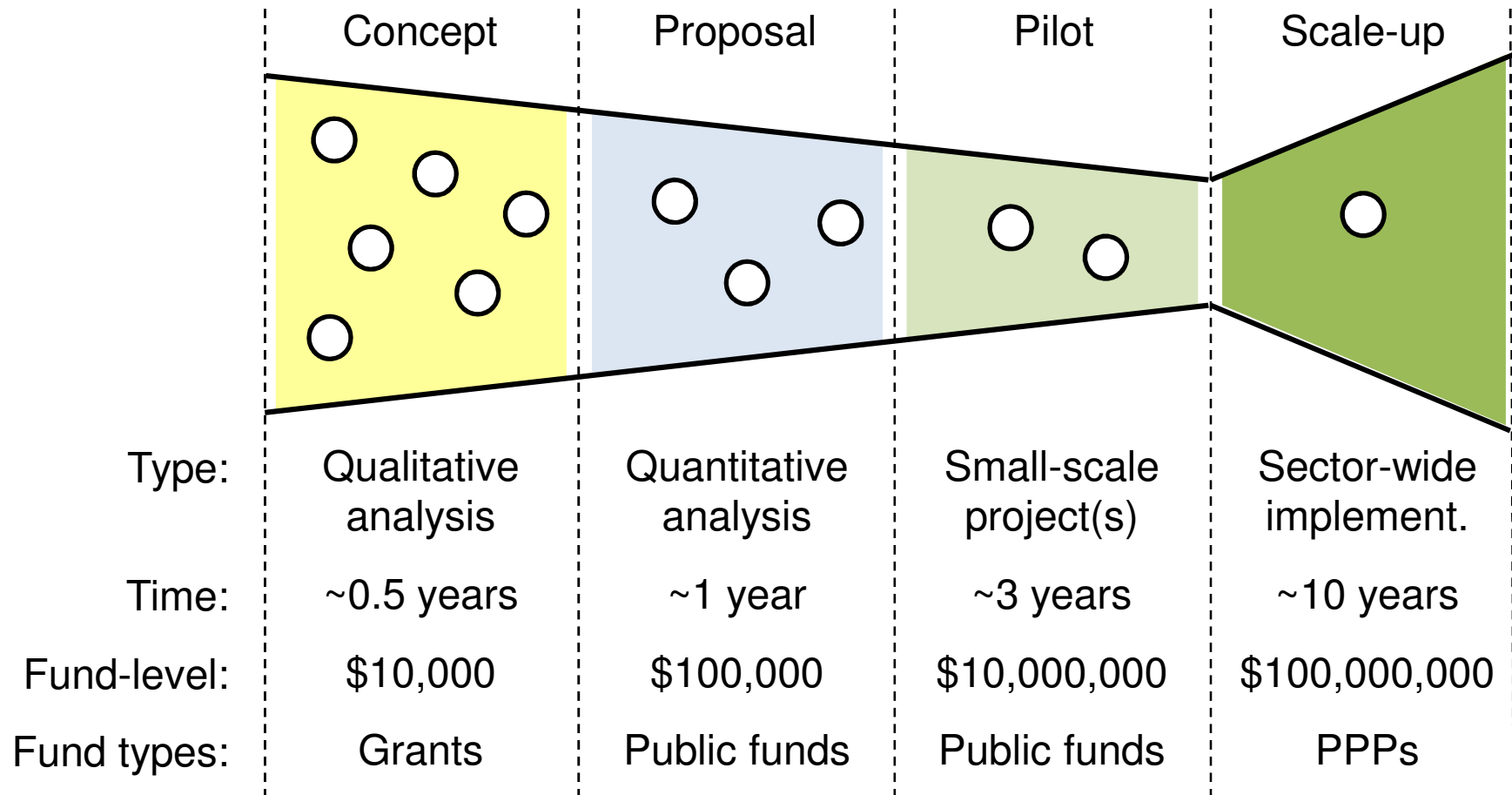
Sources: IADB, 2014; World Bank, 2014; Embrapa, 2014; coffee&climate, 2014; UTZ, 2014; Oxfam, 2014; CIFOR, 2014; CGIAR, 2014; Stockholm Environment Institute, 2014; Fair Climate Fund, 2014; Anacafe, 2014; CIAT, 2009; ADAPCC, 2014; UNFCCC, 2014; SNV, 2012; MAG Costa Rica, 2014; MINAG Peru, 2014; Rainforest Alliance, 2014; ESRF Tanzania, 2013; NUR Rwanda, 2011.

What you can do: help show how climate actions in coffee sector deliver triple benefits

	Productivity	Adaptation	Mitigation
Planting new varieties	✓ Higher yield, less inputs	✓ Resist to diseases/pests	✓ Less fertilizer, land-use
Gradual replanting/varieties	✓ Yield increase old farms	✓ Incorp. climate resiliency	✓ Less fertilizer, land-use
Better planting practices	✓ Quicker, better density	✓ Seedling survive events	✓ Less land-use change
Rejuvenation	✓ Yield increases	✓ Resilient to weather	✓ Less fertilizer, land-use
Agroforestry / shade trees	✓ Increase quality, price	✓ Reduce temp. extremes	✓ Carbon sequestration
Integrated pest management	✓ Reduces costs, losses	✓ Mapping helps prepared.	✓ Less pesticides, inputs
Water management	✓ Less fertilizer leaching	✓ Keep aquifer healthy	✓ Less water = less CO ₂
Optimized fertilizer use	✓ Lower costs, higher yields	✓ Less run-off during events	✓ Less NO _x emissions
Soil management	✓ Soil moisture increases	✓ Topsoil not lost	✓ Increases carbon stocks
Energy-efficiency at mill	✓ Reduce processing costs	✓ Less depend on grid	✓ Less CO ₂ from energy
Wastewater management	✓ Bio-methane as energy	✓ Less depend. on fuels	✓ Reduce methane at mill
Use of renewable energy	✓ Reduce energy costs	✓ Less depend. on grid	✓ Reduce methane at mill

Sources: Hortensia Solis; Coffee & Climate, 2015

What you can do: explore if you can help get a regional or national program for actions



Source: Hortensia Solis

Thank you

Yara International Coffee Event
12 May 2016

Hortensia Solís
+31 621141912
hortensia@viajeconcafe.com



Photo credit: Ecorazzi