

Impacto del cambio climático en las cadenas productivas del café

Opciones de Agricultura Clima – Inteligente para Café

22/11/2016 Honduras

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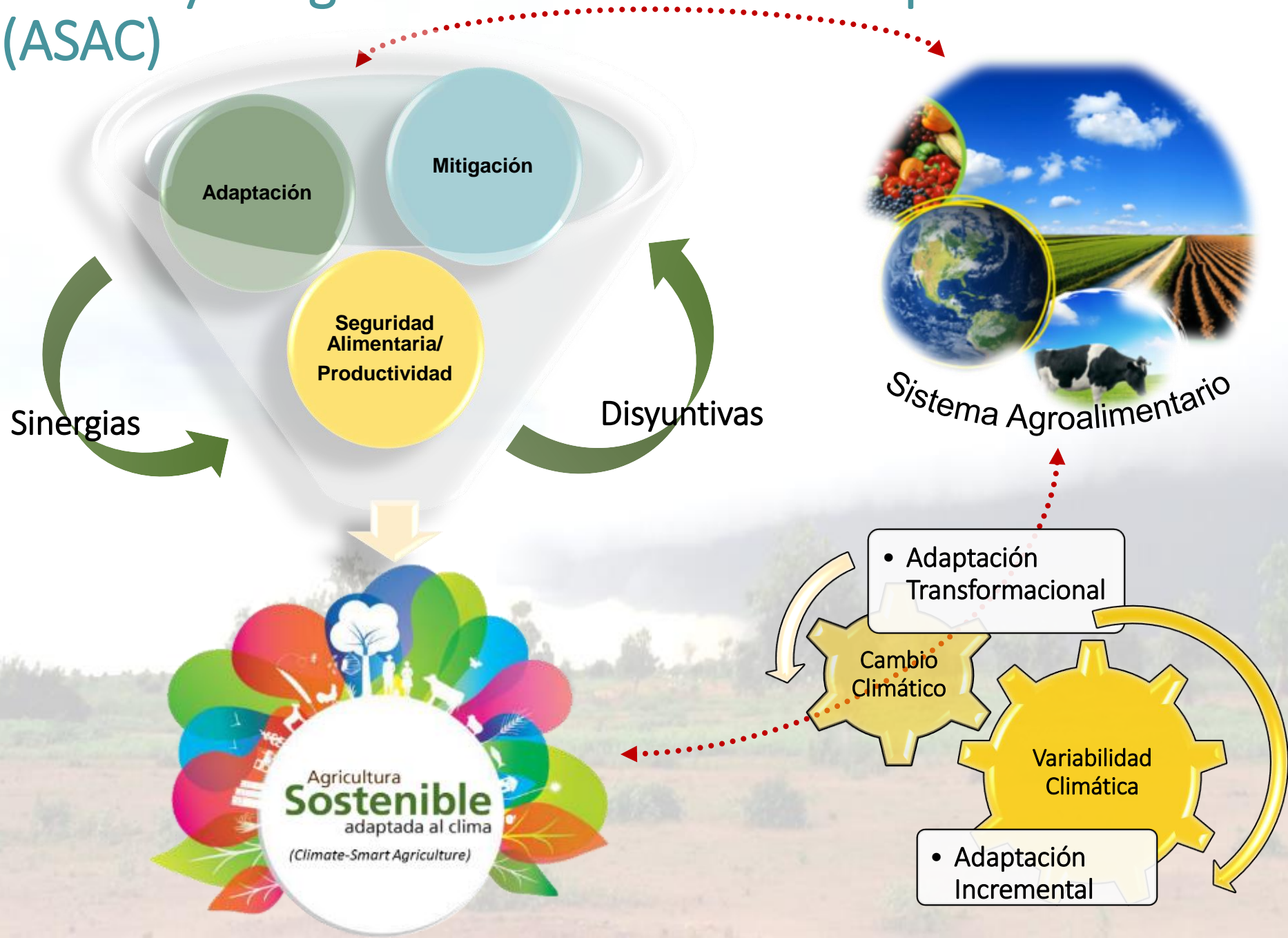
 **CIAT**
International Center for Tropical Agriculture
Since 1967 / *Science to cultivate change*


CGIAR

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Climate Change,
Agriculture and
Food Security


CCAFS

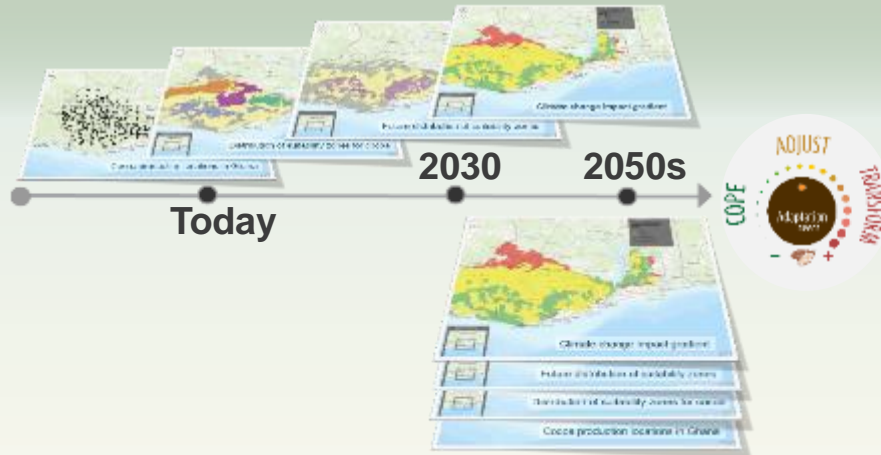
El Reto y la Agricultura Sostenible Adaptada al Clima (ASAC)



El camino hacia café y cacao sostenible adaptada al clima

1

Entender el cambio climático



2

Reunir la cadena de valor según el impacto



Adaptacion con ajustes grandes



Adaptacion incremental

Transformar a otros cultivos

3

Identificar las prácticas sostenibles y adaptadas al clima y evaluar sus costos y beneficios



Menú con prácticas priorizadas

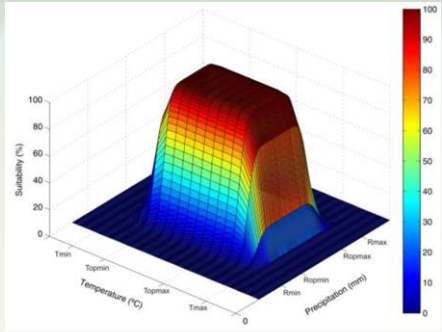
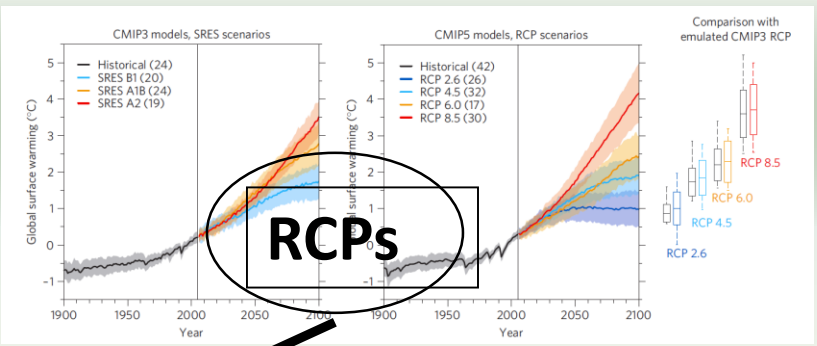
4

Desarrollar portafolios para cada actor

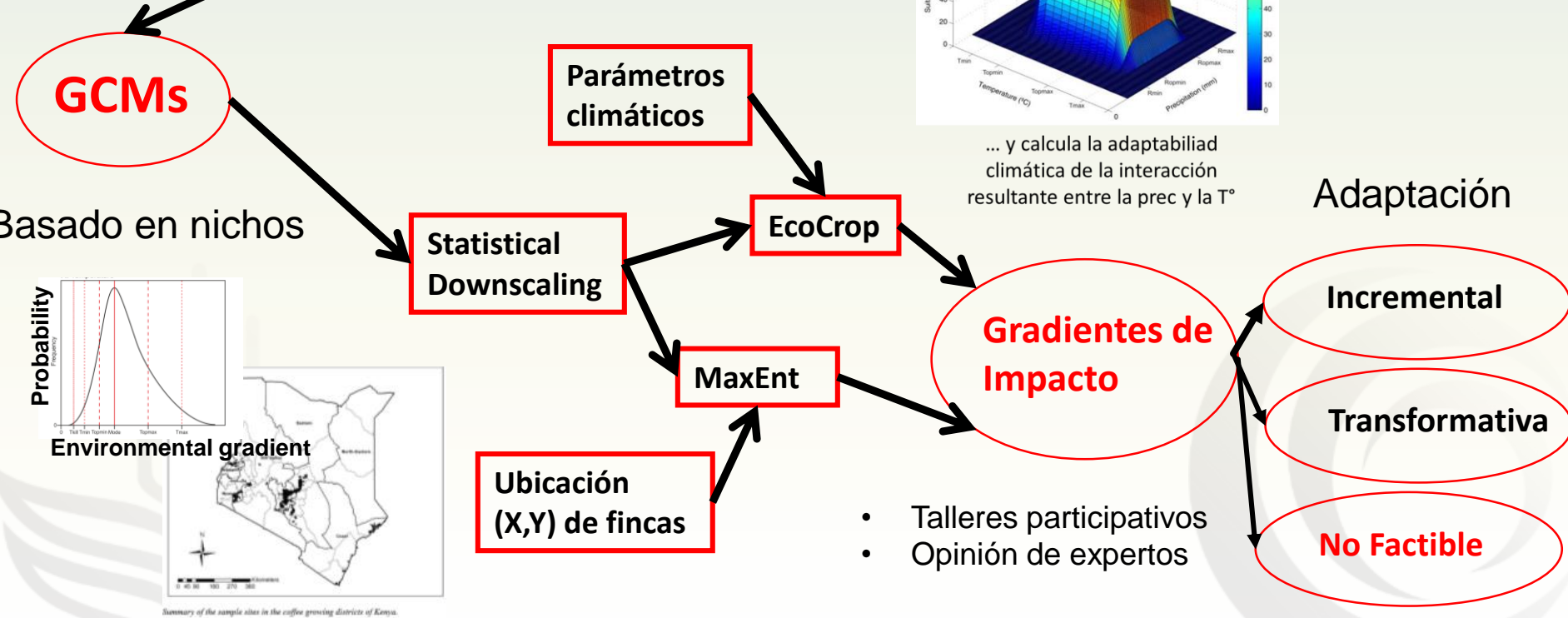


Planes personalizados

Necesitamos modelos para cuantificar los impactos y diseñar opciones de adaptación efectiva



... y calcula la adaptabilidad climática de la interacción resultante entre la prec y la T°



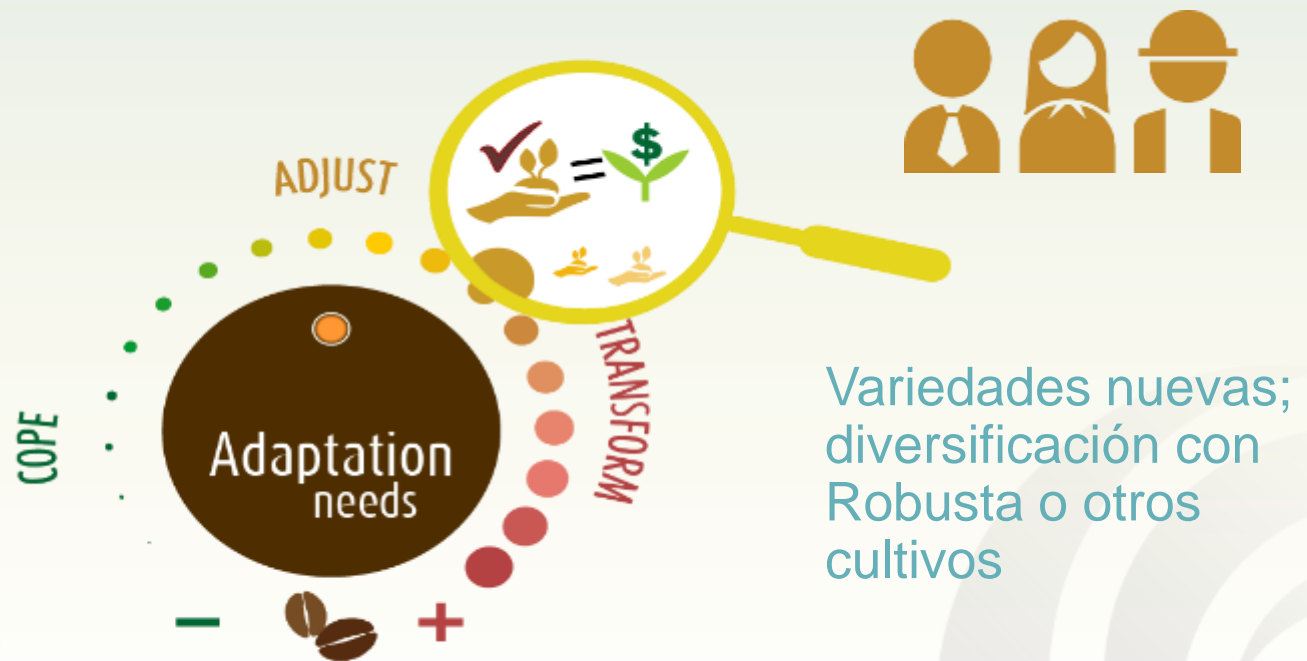
Impactos bajos – adaptación incremental



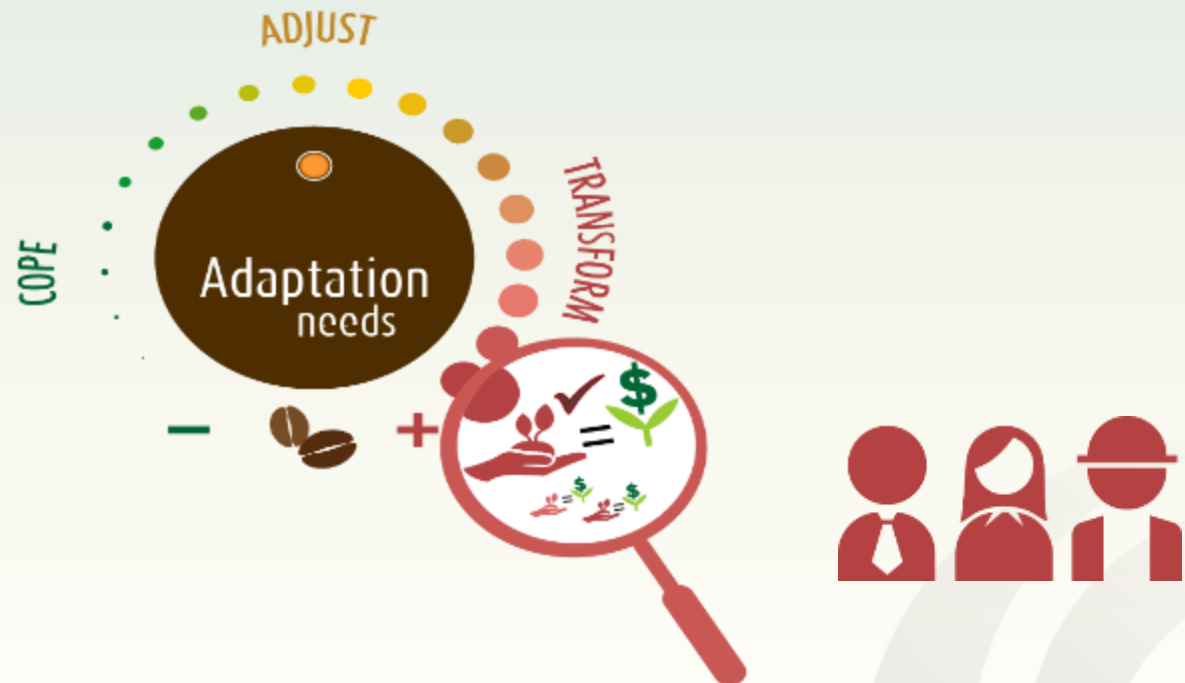
Sombra o riego;
manejo de plagas y
enfermedades,
suelos y fertilidad



Impactos intermedios – adaptación con ajustes grandes

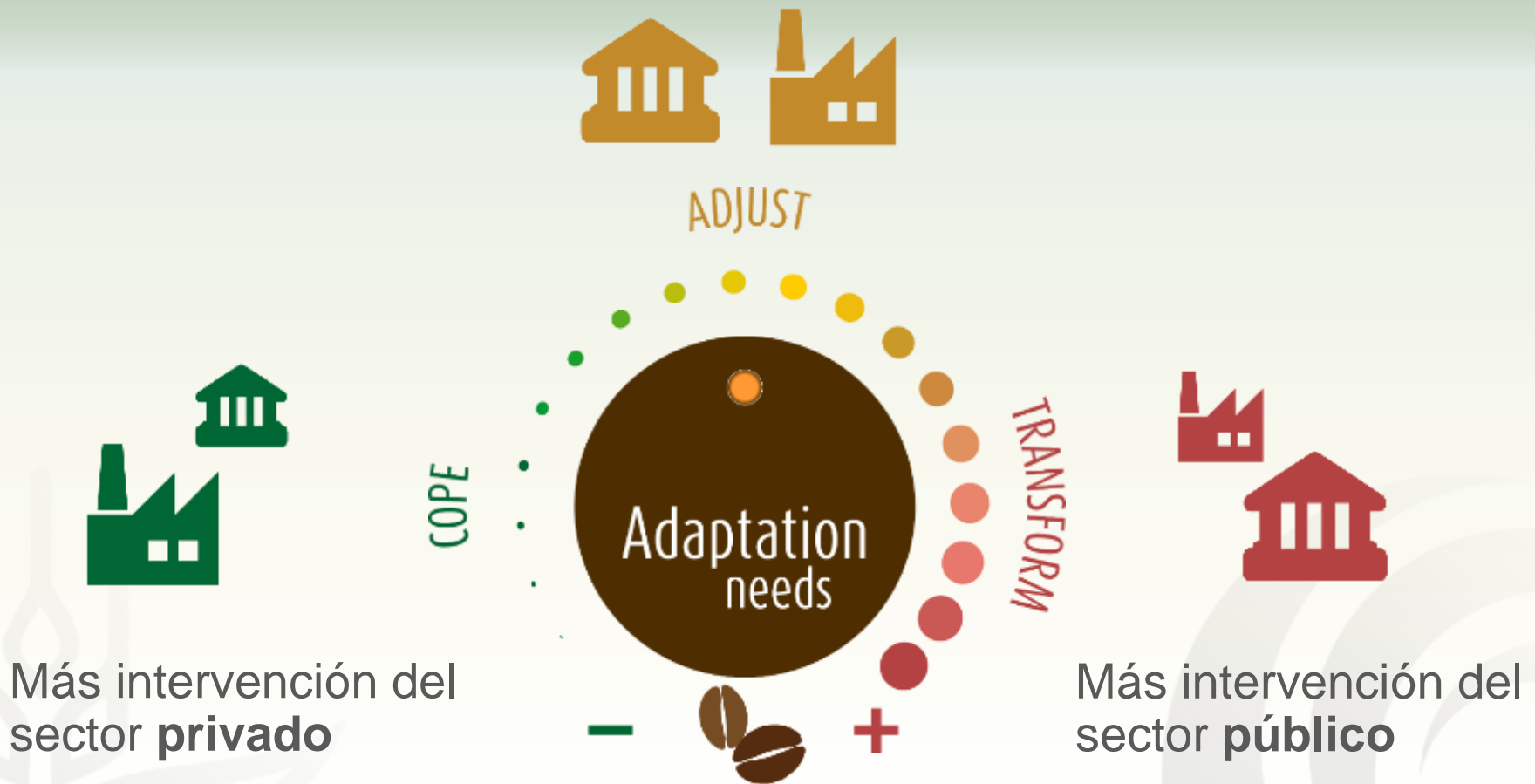


Impactos graves – adaptación no factible



Replazar el cultivo, establecer
cadenas de valor alternativas

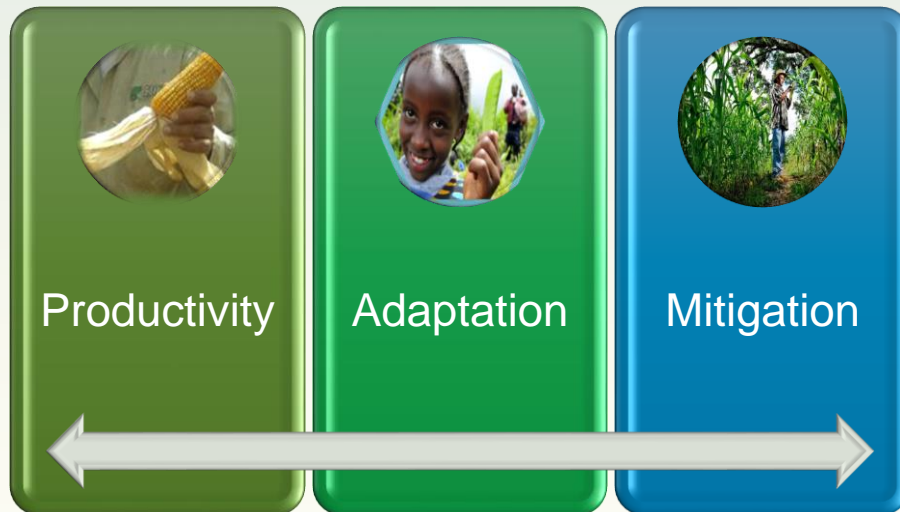
Colaboraciones publico-privado



Herramientas de CSA



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CSA country profile. (Situational analysis)

Identifying vulnerabilities and risks, CSA options and enabling conditions for CSA, from a socio-economic, cultural, environmental and institutional point of view

CSA Prioritization Framework

Providing policy and decision-makers with tools for selecting and prioritizing context-specific investment in CSA practices and services

Perfil de país CSA

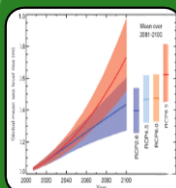


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National Agricultural Context

- Economic relevance of agriculture
- GHG emissions
- People and agriculture
- Natural Dimension



Climate Risks to Agriculture

- Projected change in temperature and precipitation by...
- Impact on crops



CSA Practices and Technologies

- CSA Compendium and expert review
- Climate-smartness assessment



Institutions and Policies for CSA

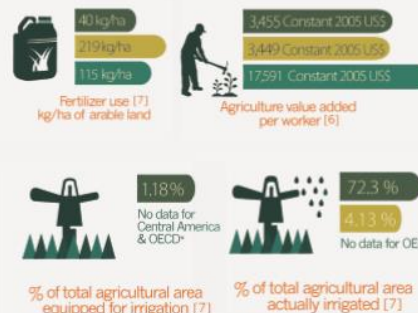
- Stakeholder mapping
- Mapping the policy environment for CSA



Financing CSA

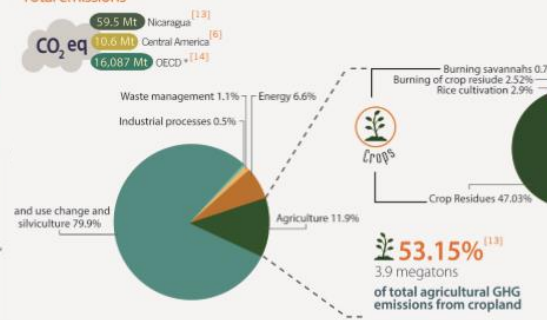
- International and national funds

Productivity Indicators



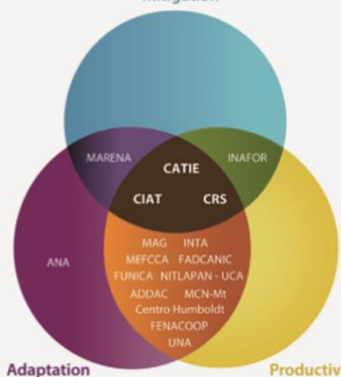
GHG Emissions

Total emissions



CSA Practice	Climate Smartness	Adaptation	Mitigation	Productivity
Silvopastoral systems with disperse trees and improved pastures Medium adoption (30–60%) Medium- and large-scale farmers		Recovery of degraded soils, reduced soil erosion, water and biodiversity conservation.	Net carbon storage during the growth of forest species.	Production diversification: wood, fruit, wooden posts with potential for improved incomes and profit.

Mitigation



Agriculture and Climate Change



National Funds

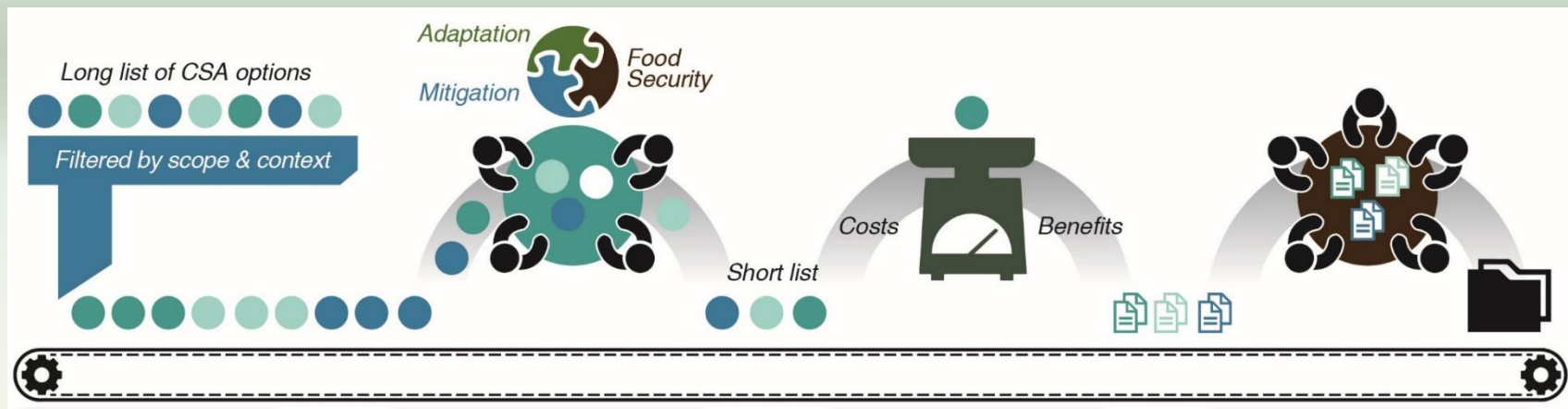
- Accessed funds
- Financing opportunities



International Funds

INPESCA Nicaraguan Institute for Fisheries and Aquaculture JICA Japan International Cooperation Agency MAG Ministry of Agriculture MECCA Ministry of Family, Community, Cooperative and Associative Economy NDF Nordic Development Fund NORAD Norwegian Agency for Development Cooperation SCCF Special Climate Change Fund SDC Swiss Agency for Development and Cooperation SIDA Swedish International Development Cooperation Agency SINAPRED National System for Disaster Prevention, Mitigation and Attention SREP Scaling Up Renewable Energy in Low Income Countries Program UNDP United Nations Development Programme UNEP United Nations Environment Programme UN-REDD+ United Nations Collaborative Initiative on Reducing Emissions from Deforestation and Forest Degradation USAID DGP USAID Development Grants Program WB The World Bank

Marco de priorización de CSA



*Analysis of context variables

➔ **Long list of CSA practices**

*Ex-ante assessment based on CSA indicators

*Stakeholder workshop
➔ **Ranked short list of priorities**

*Economic analysis – assess costs and benefits

➔ **Ranked short list based on CBA**

*Integrated analysis of opportunities & constraints

* Stakeholder workshop
➔ **CSA investment portfolios**

Análisis Costo Beneficio



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CBA results of Monila control in cacao

CBA tool summary Farm (1 ha) results	Net Present Value (NPV)	Internal Rate of Return (IRR)	Pay back Period	Scenario in the analysis	
				Before	After
Unit	US\$/cycle	%	years	High risk of monila	Low risk of monila
Value	126	88	2		
Aggregate analysis CBA tool summary	Households	Total area of cacao affected	Projected adoption rate	Aggregated NPV	Period
	100	62 ha	62%	\$22,085	6 years

source : Households survey 2015

CBA results of Windbreak (Coffee)

CBA tool summary Farm (1 ha) results	Net Present Value (NPV)	Internal Rate of Return (IRR)	Pay back Period	Scenario in the analysis	
				Before	After
Unit	US\$/cycle	%	years	Minor constant losses	No losses
Value	662	48	2		
Aggregate analysis CBA tool summary	Households	Total area of coffee affected	Projected adoption rate	Aggregated NPV	Period
	100	12 ha	12%	\$23,058	11 years

source : Households survey 2015

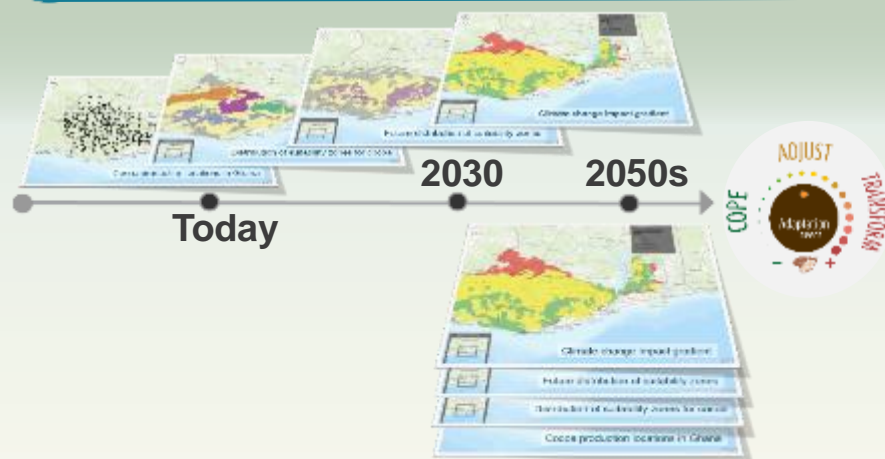
CSA practice adoption impact indicators/ Population Cluster	NPV	NPV (Average cacao field)	Initial cost (Average cacao field)	Main crop loss due to plague
	% eq of total income	% eq of total income	% eq of total income	% of households
Group 1	2.8	3.8	0.40	60
Group 2	1.9	2.6	0.27	63
Group 3	3.0	4.0	0.42	75

CSA practice adoption impact indicators/ Population Cluster	NPV	NPV (Average coffee field)	Initial cost (Average coffee field)	Main crop loss due to strong winds
	% eq of total income	% eq of total income	% eq of total income	% of households
Group 1	18.4	30.4	3.7	10
Group 2	6.8	30.2	3.7	9
Group 3	5.9	24.9	3.0	14
Group 4	19.8	33.7	4.1	19

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Planes personalizados

THANK YOU FOR YOUR ATTENTION!

Armando Martinez Valle
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