

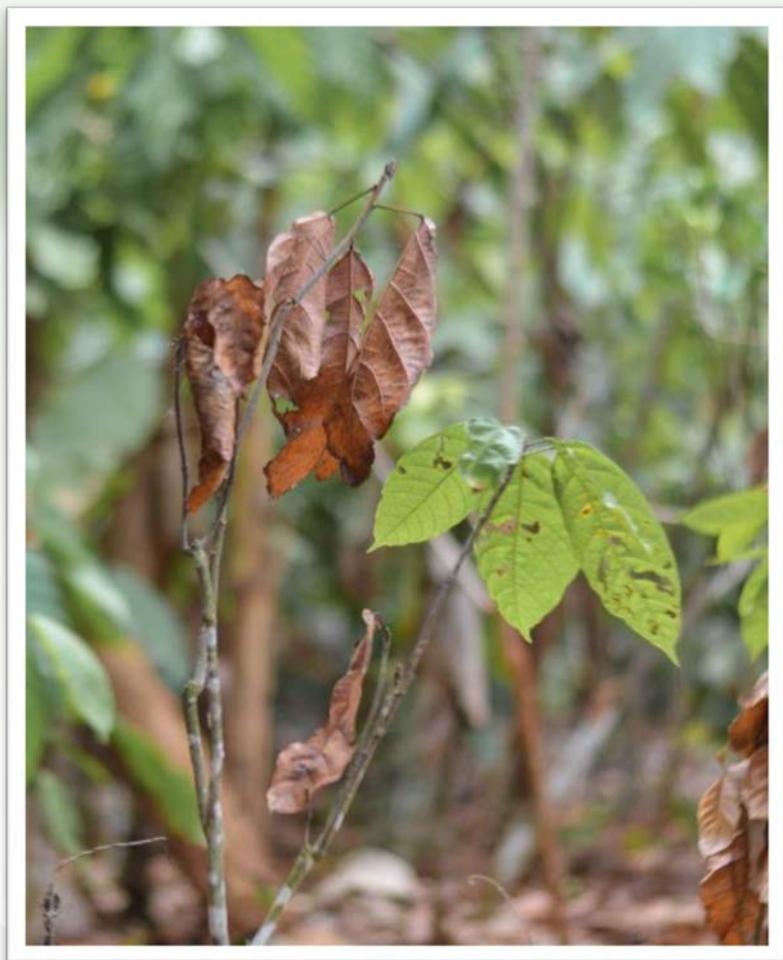
# Is our chocolate melting away?



## Adapting the cocoa sector to climate change



# Adaptation is not rocket science



# Impacts are site specific



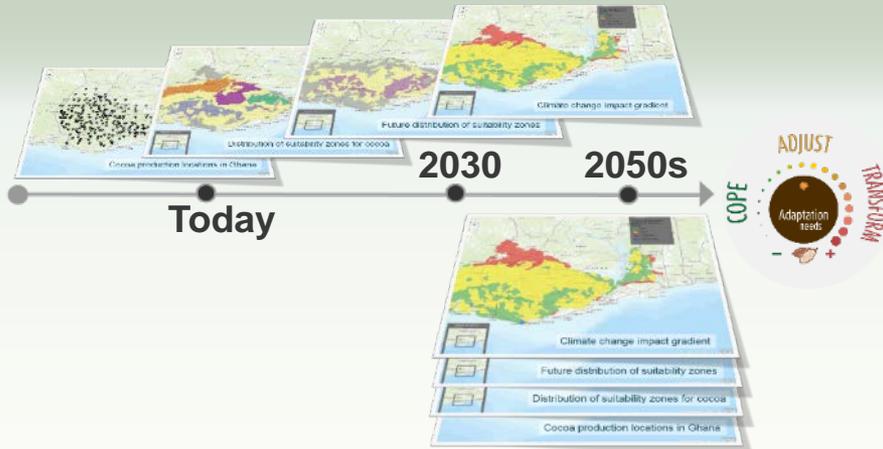
# Mainstreaming Climate-Smart Cocoa



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**1** Map the **impact gradient** to understand the risk of climate change over time



**2** Convene value chain actors along the exposure gradient



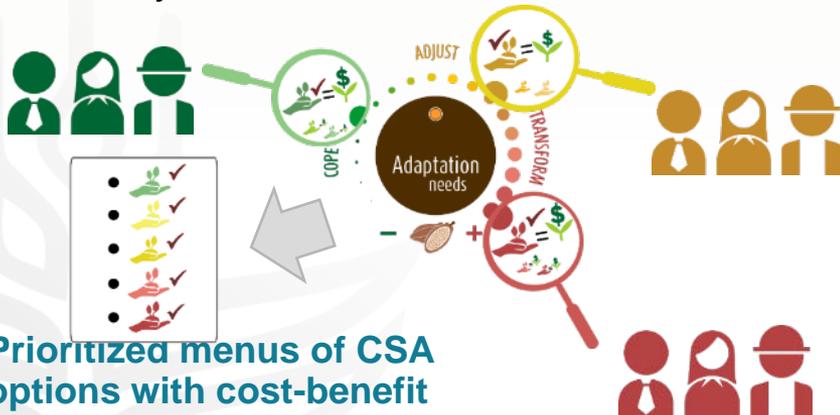
Areas that transition from one suitability type to another but remain suitable



Locations where climate characteristics will not fundamentally change

Production in these zones will likely become unviable and other crops should be considered

**3** Identify and prioritize **relevant CSA practices** by exposure gradient and analyze costs and benefits.



Prioritized menus of CSA options with cost-benefit analysis

**4** Construct exposure specific portfolios of priority CSA practices for different investors



Tailored CSA investment plans

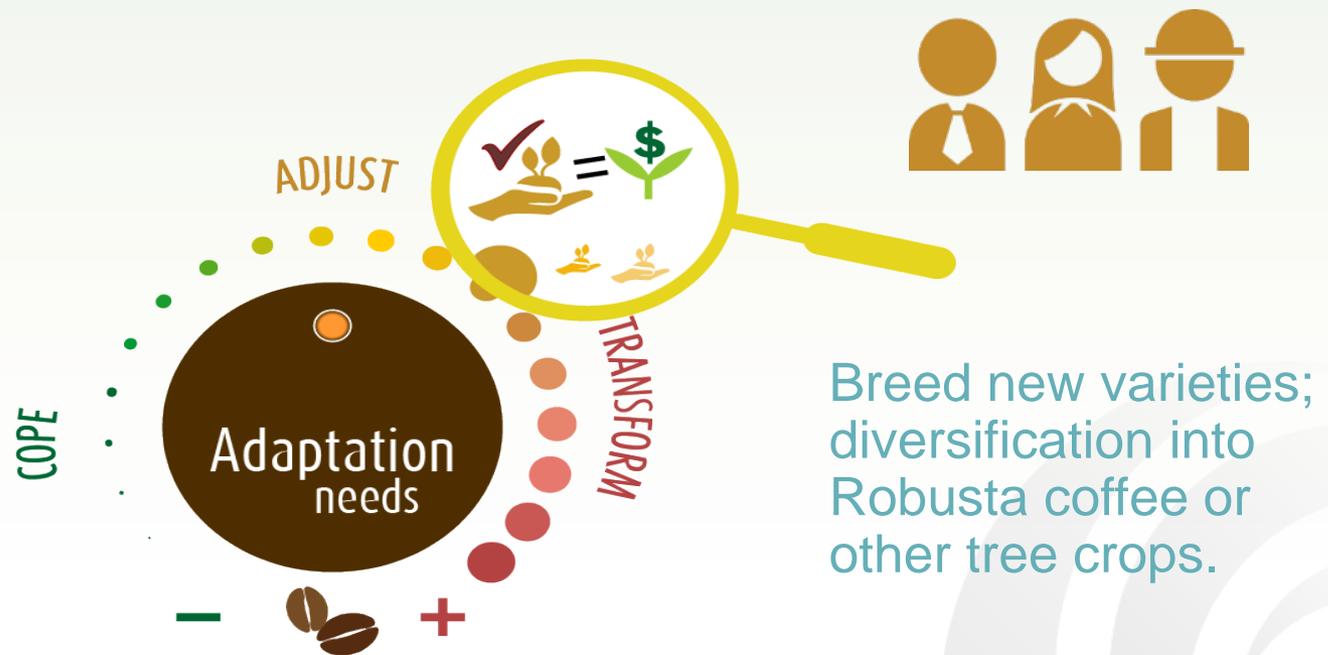
# Low impacts – incremental adaptation



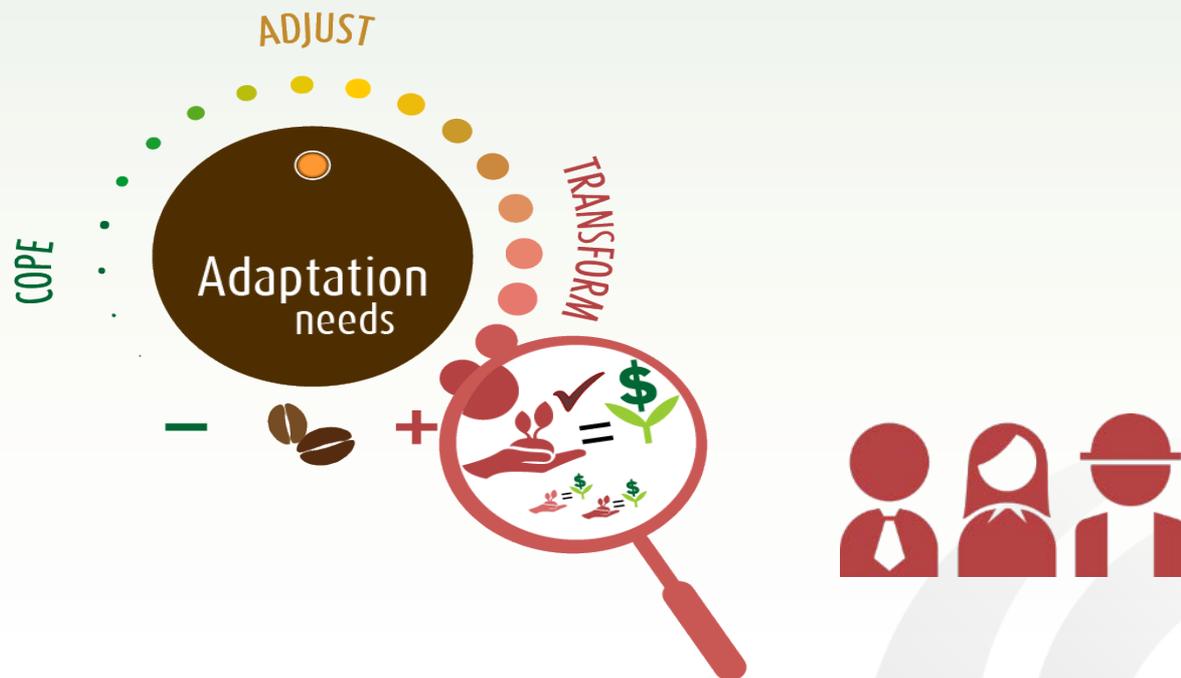
Shade and irrigation;  
improved crop, pest  
and diseases,  
shade, soil, water  
and fertility  
management



# Intermediate impacts – pro-active adaptation

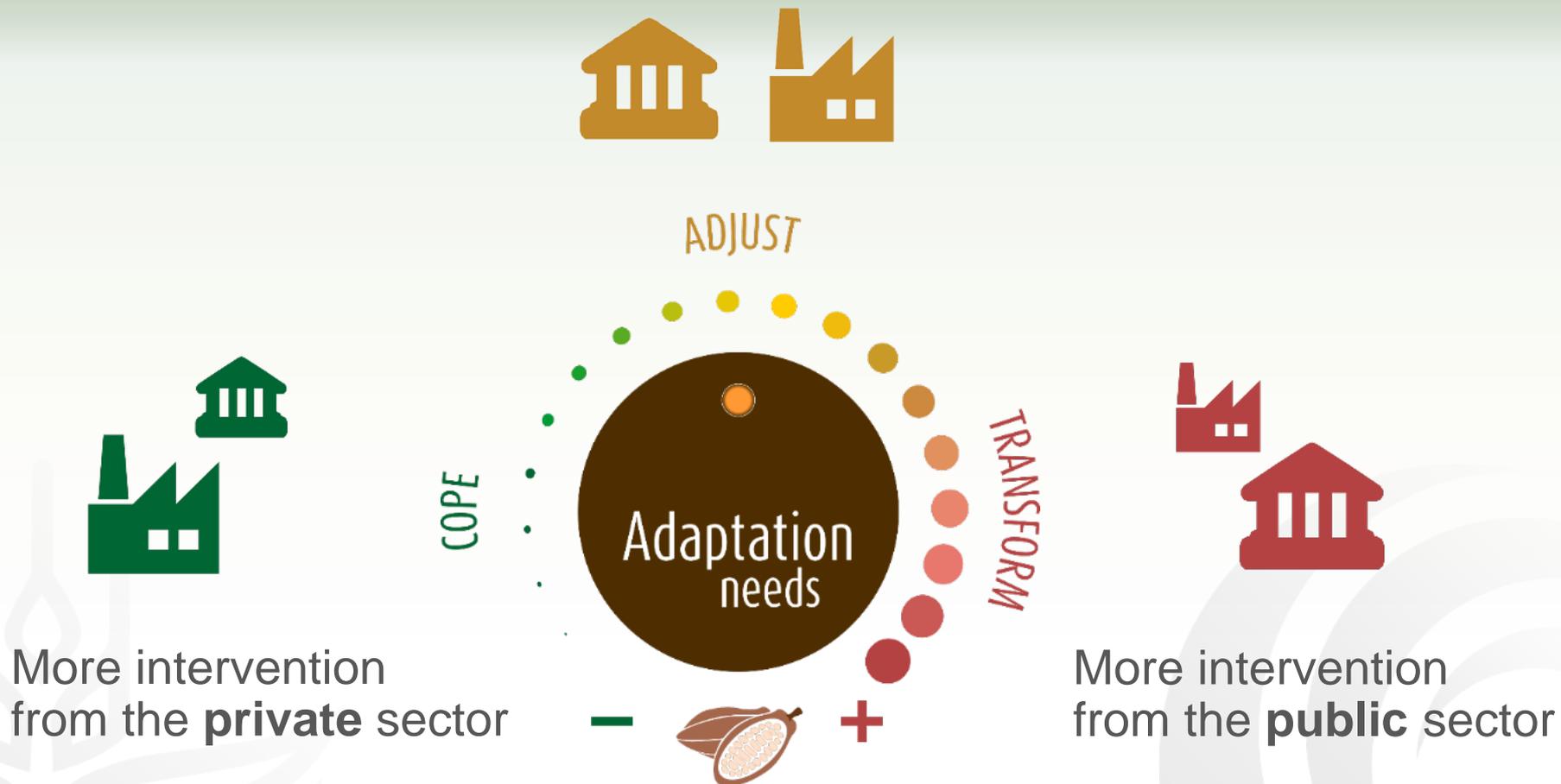


# High impacts – adaptation unfeasible

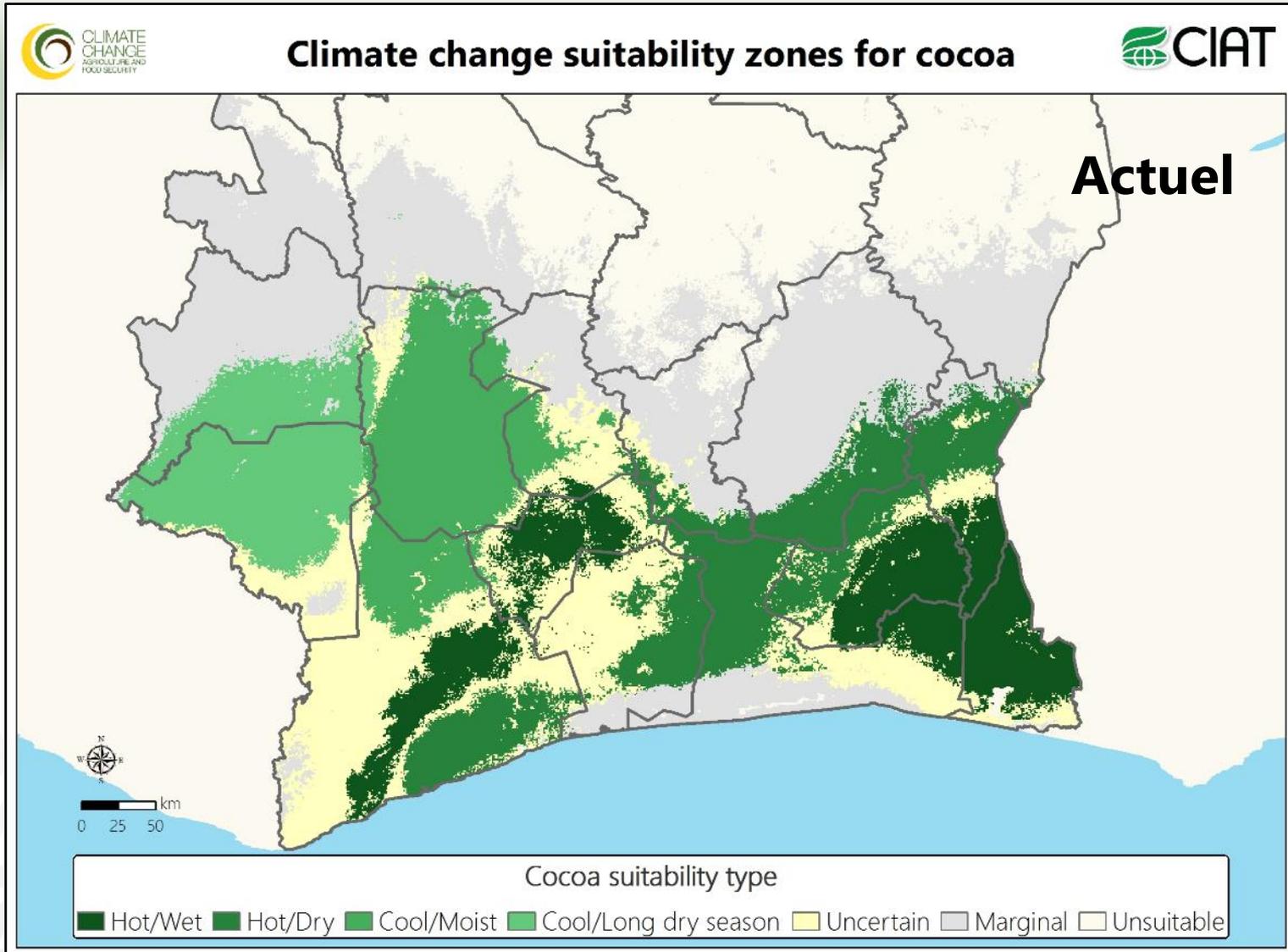


Move from diversification to replacing crops, emigrate to other region, off farm employment

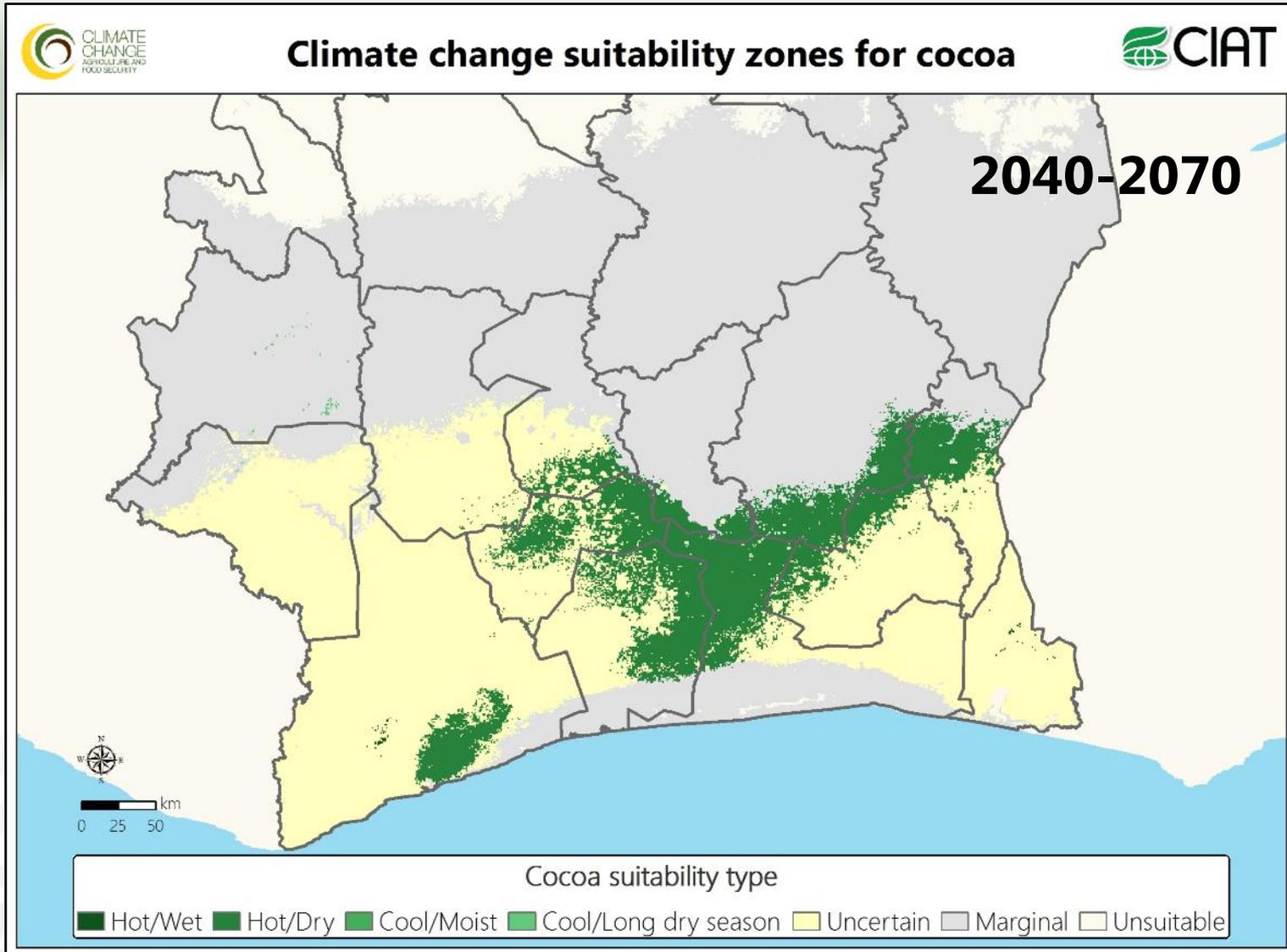
# Public-private partnerships



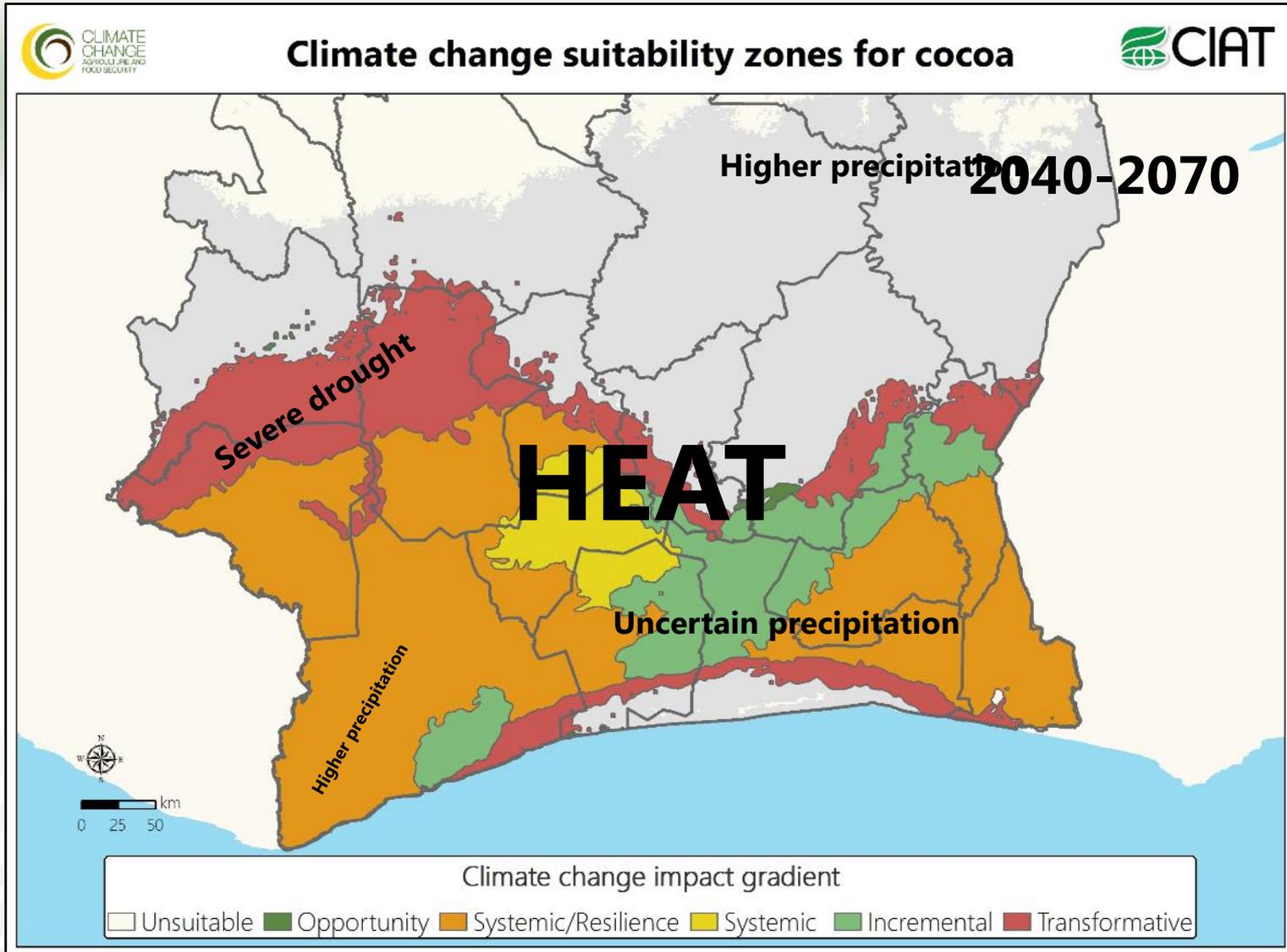
# Impact zones in Ivory Coast



# Impact zones in Ivory Coast



# Impact zones in Ivory Coast



# Conclusions



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Food Security



- Ivory coast *will be able to* remain the largest cocoa producer ***if*** climate change adaptation is supported
- Heat and uncertain precipitation are the dominant hazards
- Adaptation needs are ***high***
  - Resilience of the production system needs to be supported
  - Drought tolerant varieties
  - Soil protection
  - Adequate shade management
  - Weather insurance

# Thank you!



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Food Security**



Agri-chains & Sustainable Development, Montpellier, 14<sup>th</sup> December 2016  
C. Bunn, Mark Lundy, Fabio Castro et al.



World Cocoa  
Foundation

