

Climate smart cocoa value chains



RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security



Adapting the cocoa sector to climate change



World Cocoa
Foundation

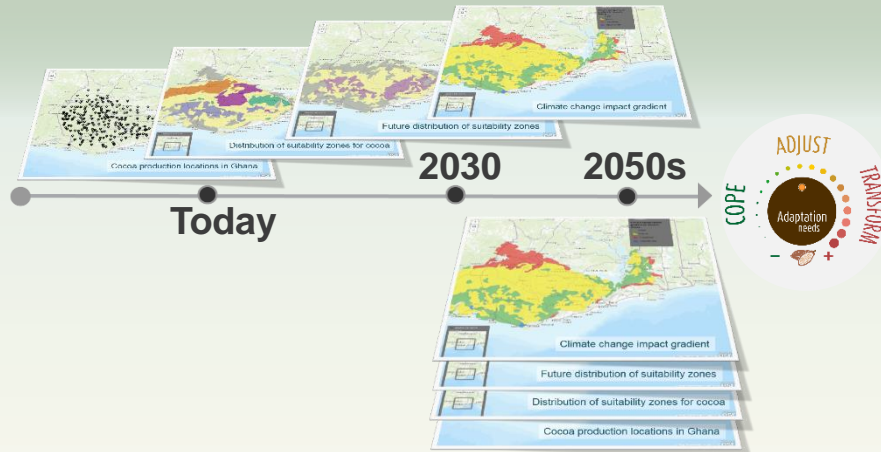


Climate change impacts



Mainstreaming Climate-Smart Cocoa

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

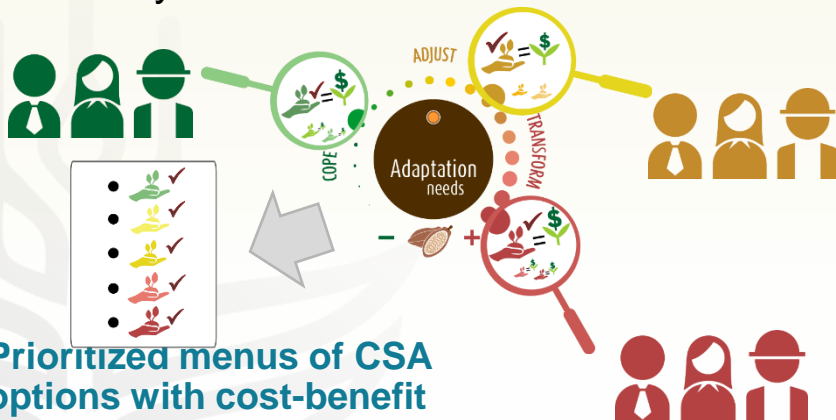


Locations where climate characteristics will not fundamentally change



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**

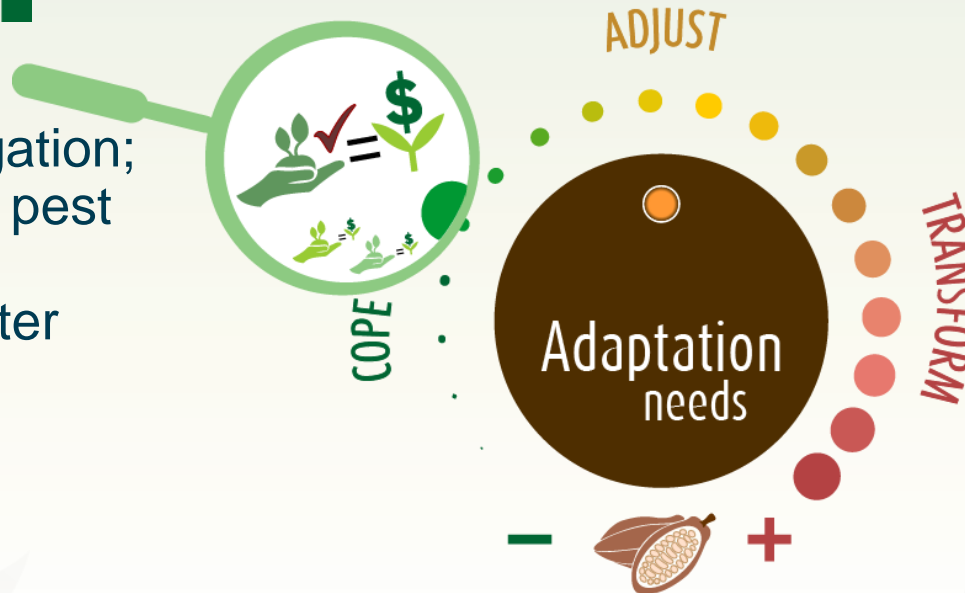


Tailored CSA investment plans

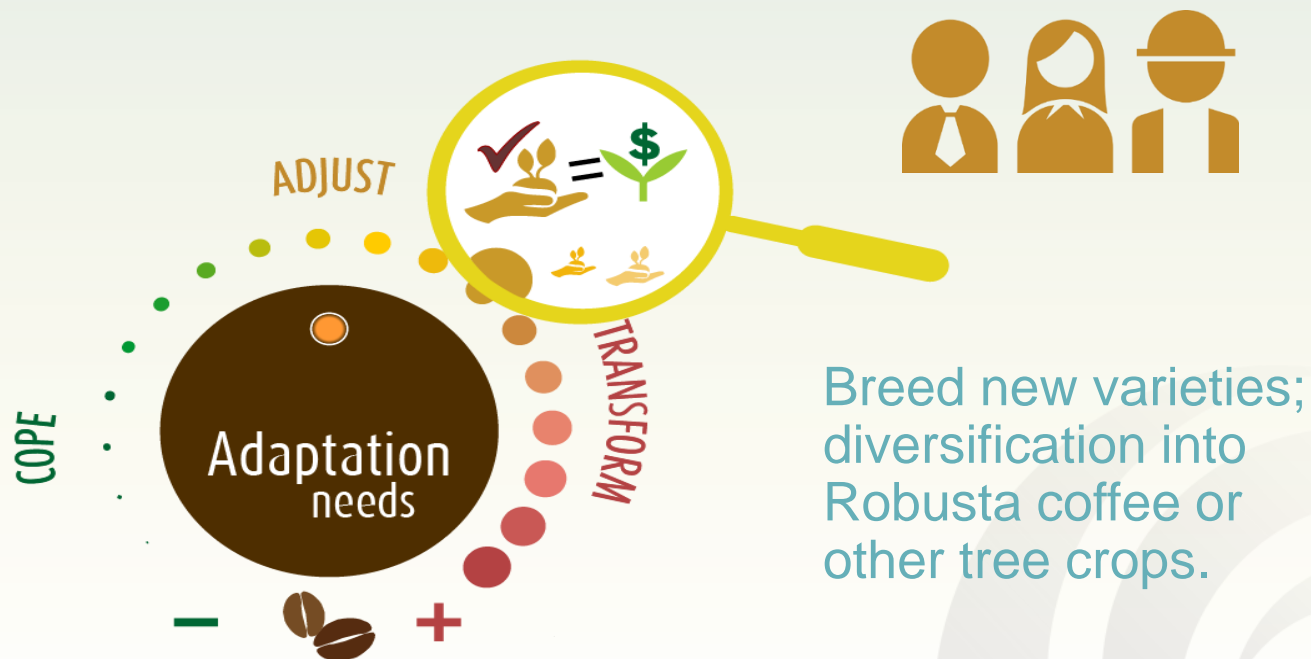
Low impacts – incremental adaptation



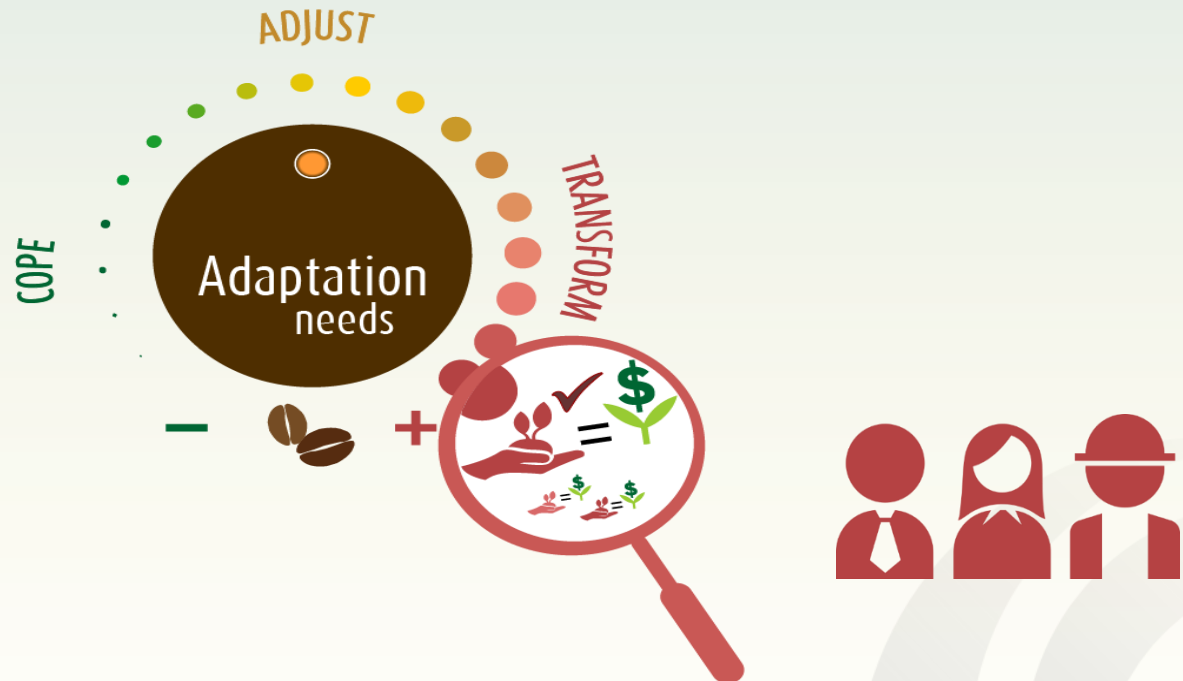
Shade and irrigation;
improved crop, pest
and diseases,
shade, soil, water
and fertility
management



Intermediate impacts – pro-active adaptation

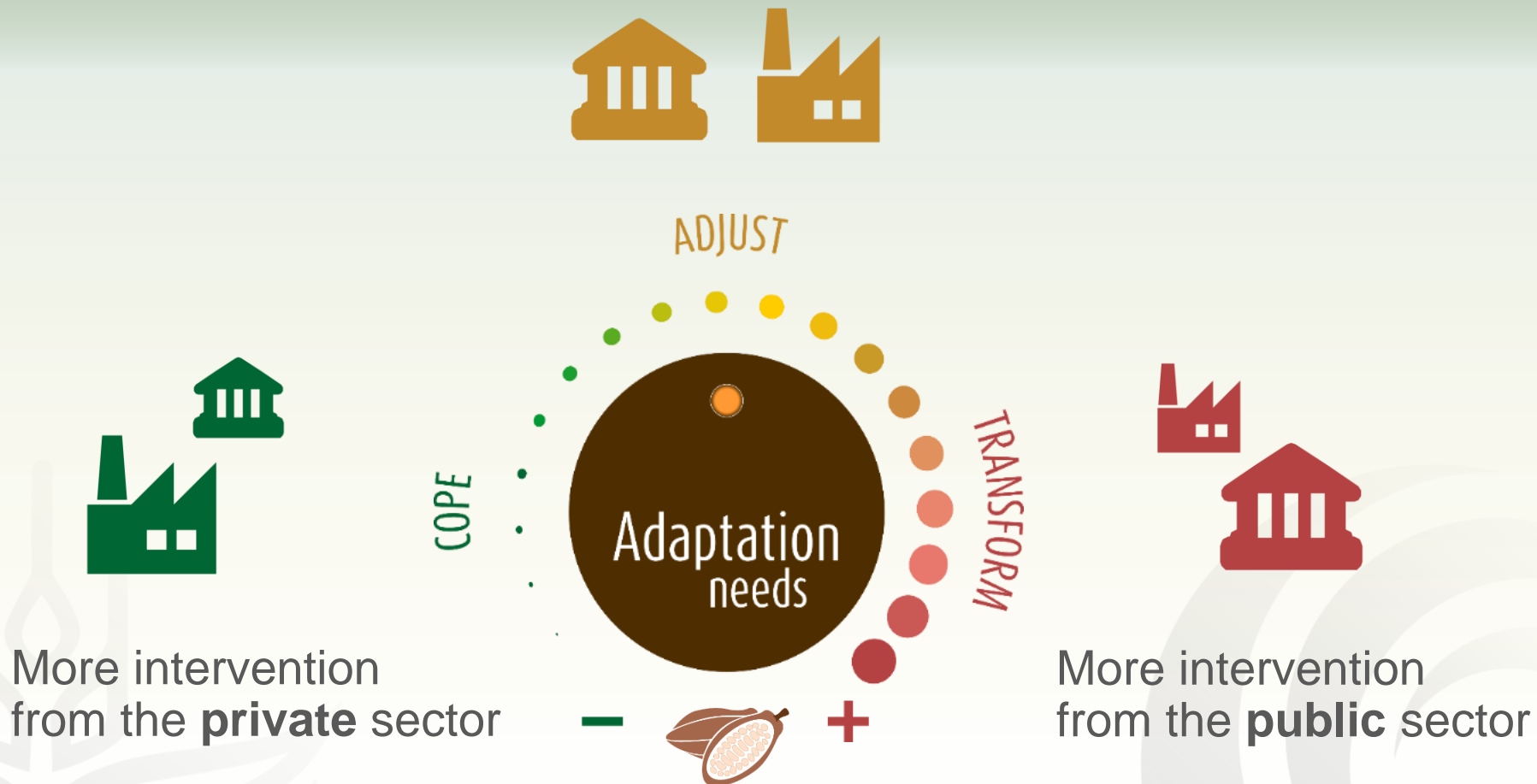


High impacts – adaptation unfeasible

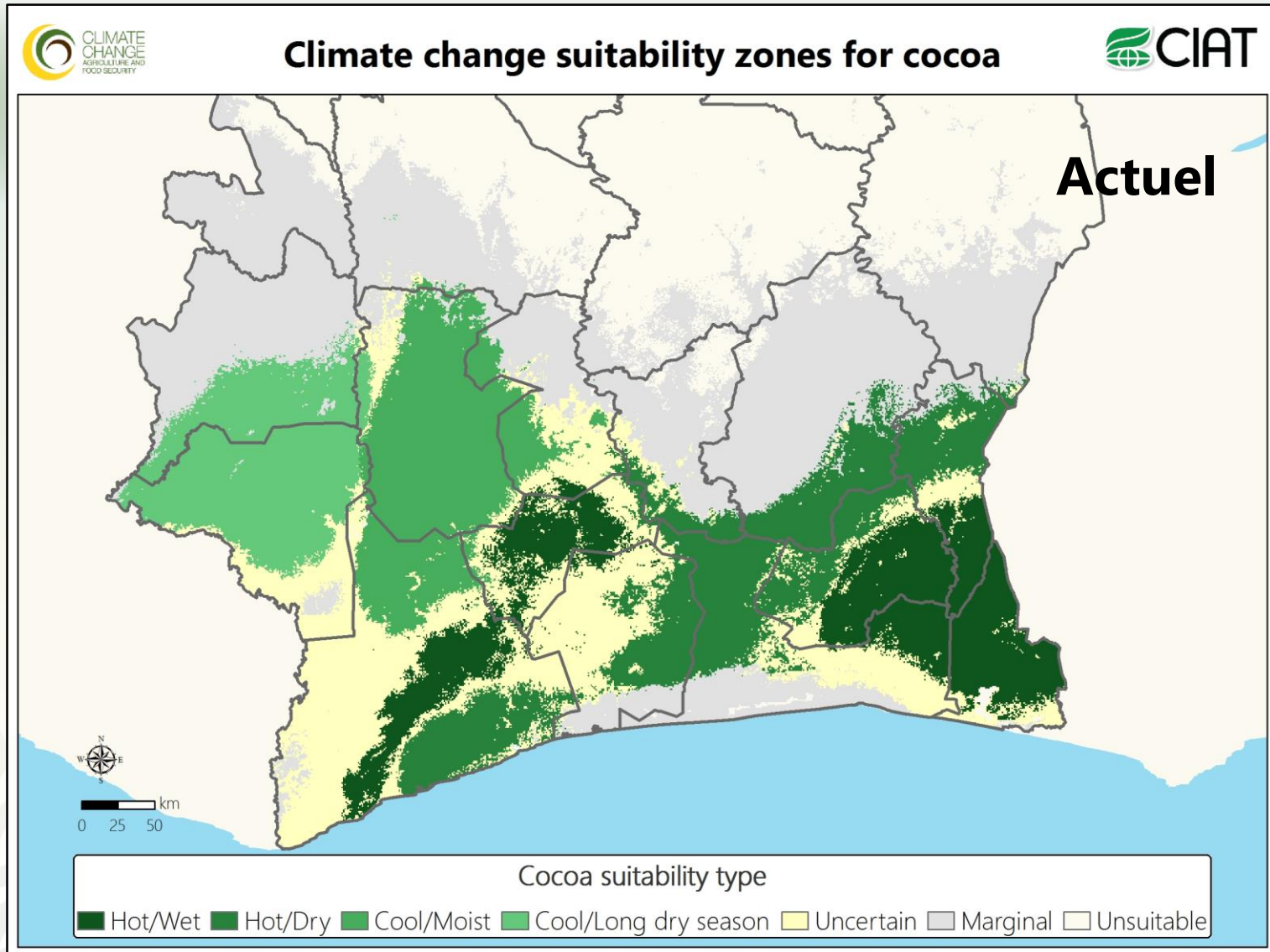


Move from diversification to replacing crops, emigrate to other region, off farm employment

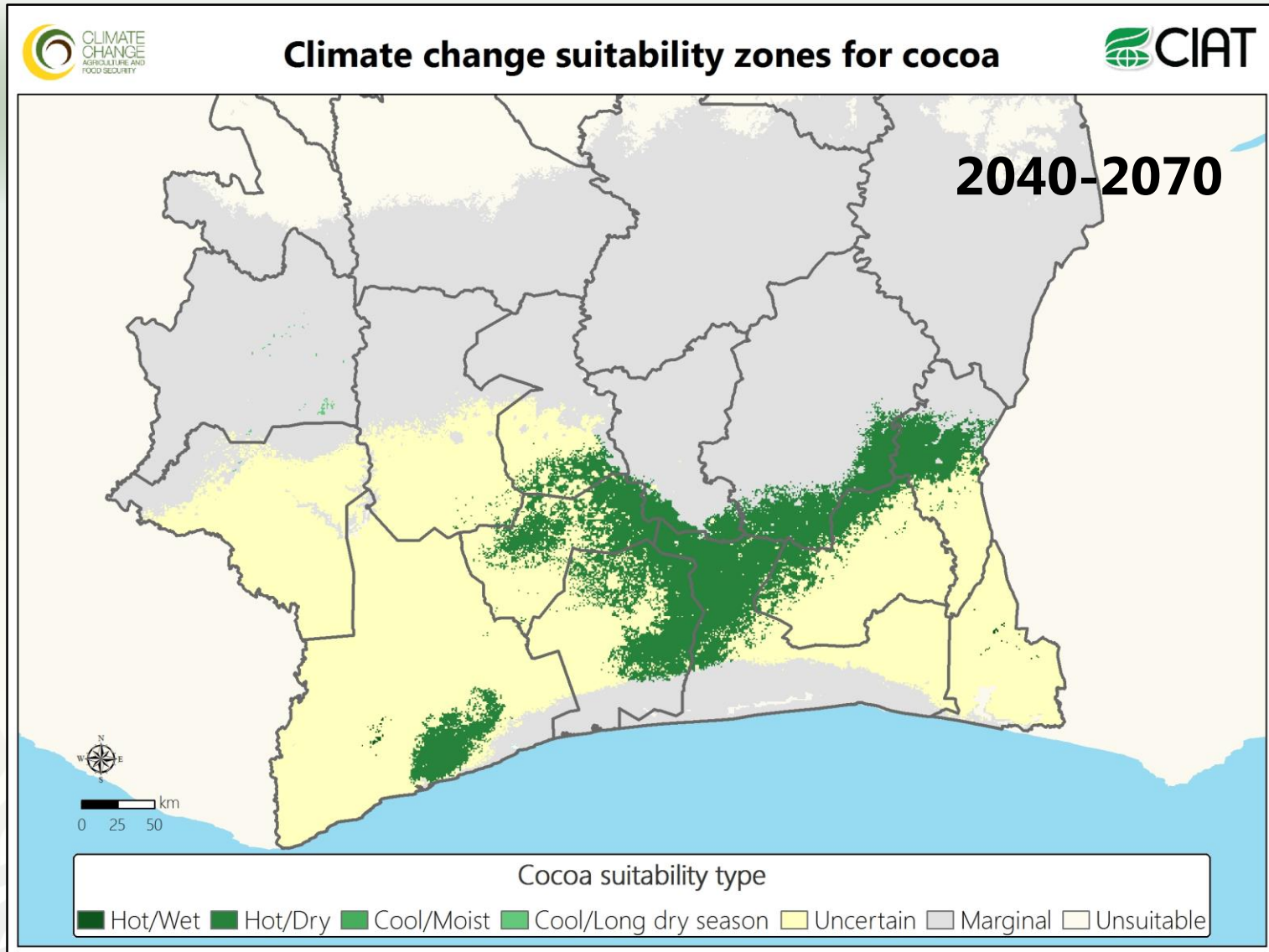
Public-private partnerships



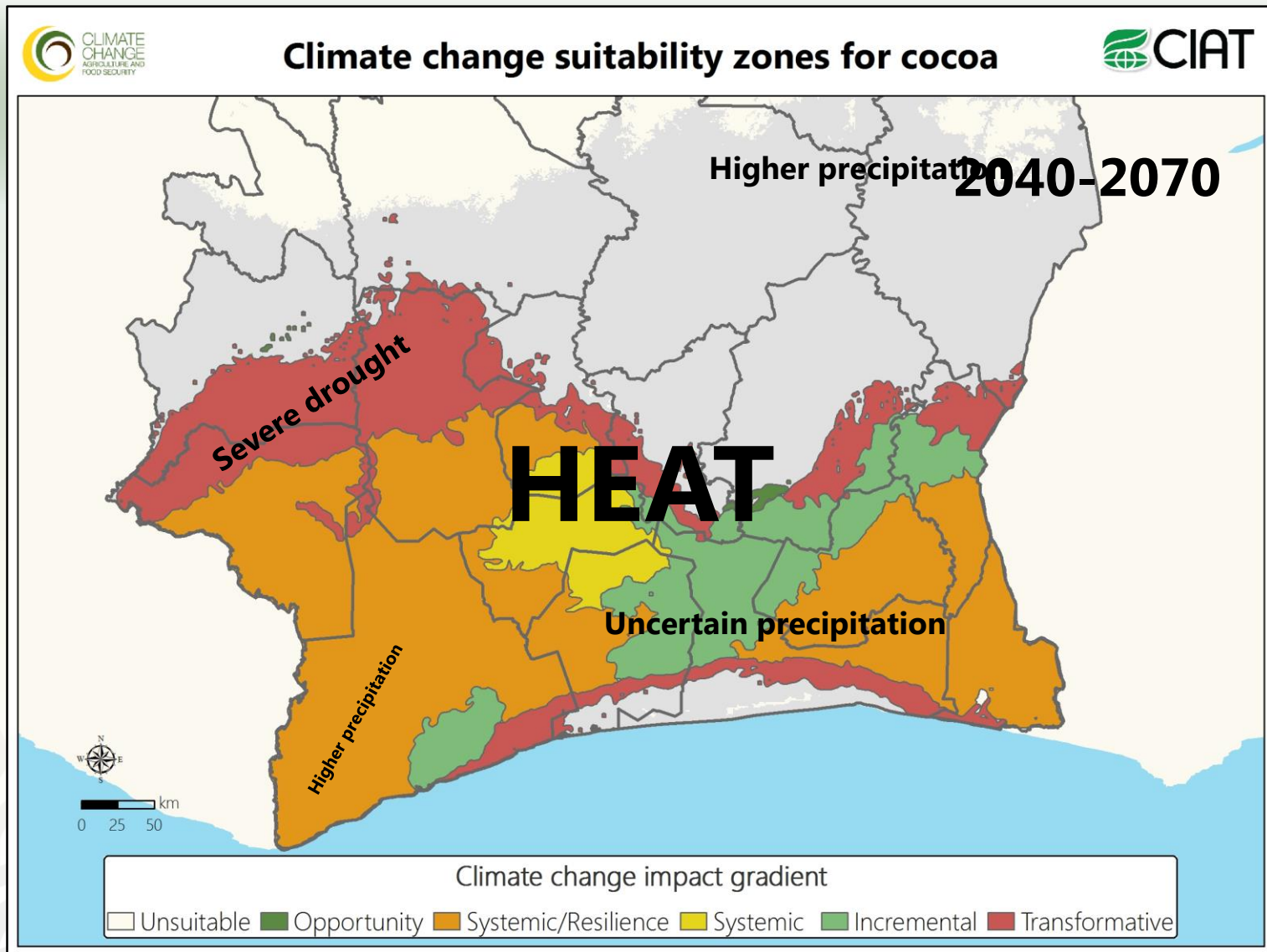
Impact zones in Ivory Coast



Impact zones in Ivory Coast



Impact zones in Ivory Coast



Conclusions

- 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!



RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



Journées Nationales du Cacao et du Chocolat, 1st Oct. 2016, Abidjan
C. Bunn, Mark Lundy, Fabio Castro et al.



World Cocoa
Foundation

