

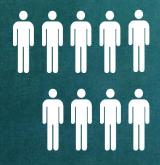
"You can't wake a person who's pretending to sleep"

Oromo proverb

# change at the speed of life







x2 = 18



## The China phenomenon

	Population at start of growth period	Years to double GDP per capita <sup>1</sup>
Britain (1700-1855)	9M	155
US (1820-1873)	10M	53
China (1983-1995)	1,023M	12
India (1989-2006)	822M	17

China doubling of GDP was 12X the speed of Britain during the Industrial Revolution at 100X the scale

400 million lifted out of poverty

### Commodity prices



Source: Grilli and Yang; Stephan Pfaffenzeller; World Bank; International Monetary Fund (IMF); Organisation for Economic Co-operation and Development (OECD); UN Food and Agriculture Organization (FAO); UN Comtrade; McKinsey analysis

#### Food prices & food riots, 2004-12



global food 40 years 8,000 years

## food production

is already the biggest threat













## the issue isn't what to think

it's how to think

## Carbon emissions in Tetra Pak supply chain (distribution in base year 2010)

2020 Goal = 13 MT CO<sub>2</sub>

raw materials, production, processing

45%

use of Tetra Pak equipment at customer sites

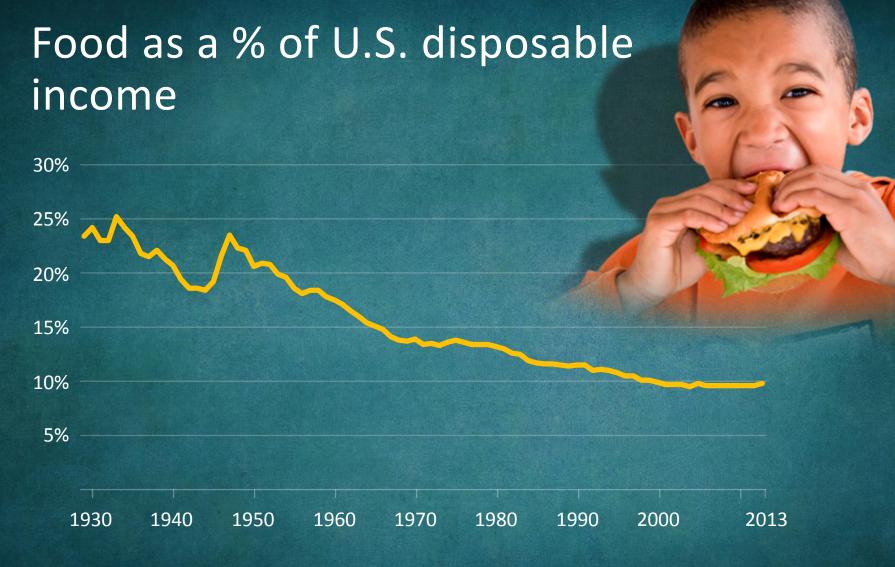
43%

end of life

5%

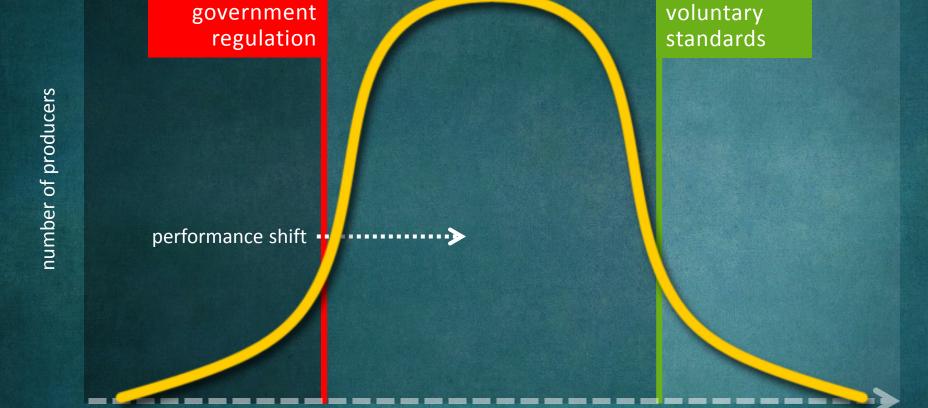
7%
Tetra Pak

Tetra Pak operations









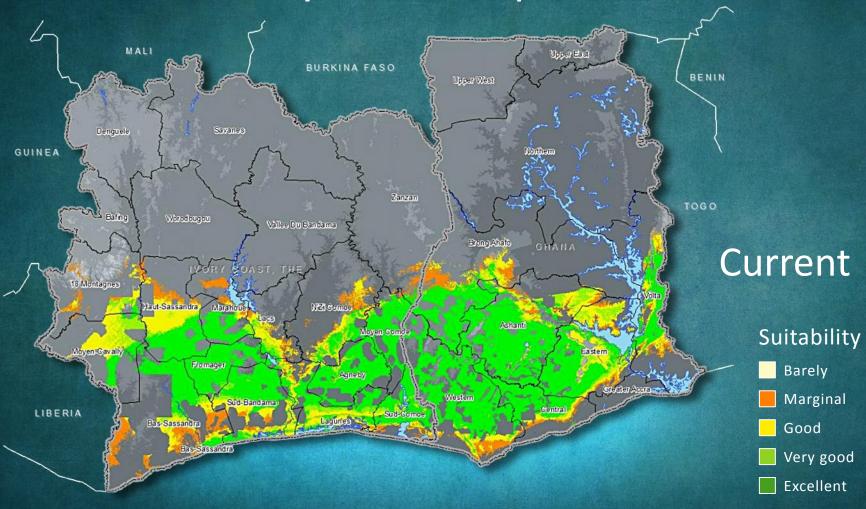
average

worse

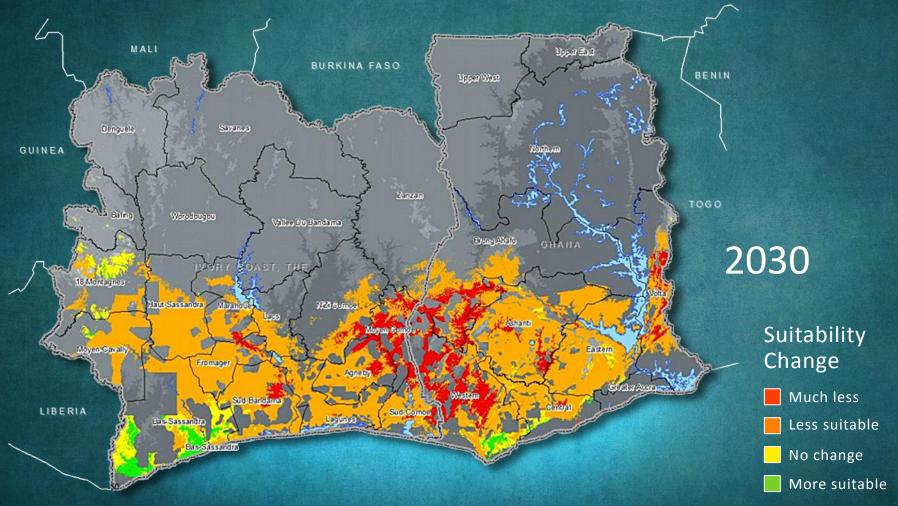
better



#### Suitability of cocoa production



#### Suitability of cocoa production



# in the short term climate smart agriculture = efficient production

## in the medium term, producers change crops

## by 2050 double net food availability

# productivity & efficiency and waste & consumption

## shift from maximizing one variable...

...to optimizing key ones





liter of water = calorie





or should

all choices
be more sustainable?

## moving sustainability from niche to norm







































P&G







Sara fee





## Working with nature

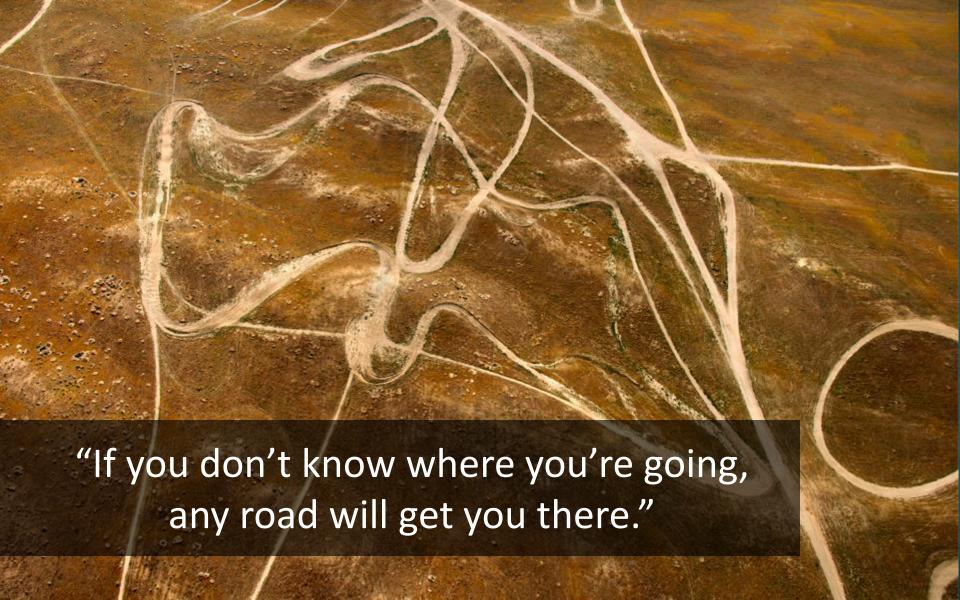
## BOX Board

Growing the success of Irish food & horticulture

the issue is



both availability and reputation







### Credible PCIs

- Principles
- Criteria
- Indicators
- Measurable results/standards



### Key impacts to address

- Biodiversity/Habitat
- Invasive species
- Water take & effluent
- Chemical toxicity
- Air pollution
- GHG emissions



### Other key issues to address

- Soil health
- Illegality
- Infrastructure
- Site restoration
- Site vs Cumulative impacts