agriculture business biodiversity issues, strategies & tools
“You can’t wake a person who’s pretending to sleep”  

Oromo proverb
global food

40 years = 8,000 years
x 1 = 7

x 2 = 18
food production is already the biggest threat
6-8 impacts

we need indicators for each
one set of global indicators, a *codex planetarius*?
the issue isn’t what to think
it’s how to think
feeding a child will trump biodiversity
food security is national security
Commodity trading – fit for purpose?

physical values
- weights and measures
- quality
- color
- foreign matter
- health and safety

intangible values
- organic
- non-GMO
- no child labor
- zero deforestation
- traceability
Carbon emissions in Tetra Pak supply chain (2010)

- Raw materials, production, processing: 45%
- Use of Tetra Pak equipment at customer sites: 43%
- End of life: 5%
- Tetra Pak operations: 7%
Reward the best, or move the rest?

- Government regulation
- Voluntary standards

Performance shift
Climate change & cocoa production

Current

Suitability
- Barely
- Marginal
- Good
- Very good
- Excellent

Source: Armando Isaac Martinez, a.i.martinez@cgiar.org; Narioski Castro
Suitability of cocoa production

Source: Armando Isaac Martinez, a.i.martinez@cgiar.org; Narioski Castro
by 2050 with BAU, **double** net food availability
productivity & efficiency and waste & consumption
rebuild soils rather than convert habitat
“it’s not if genetics, but which genetics”
1 liter of water = 1 calorie
waste

1 out of 3 calories
on a finite planet, should consumers have a **choice** about sustainable products?

or should **all choices** be more sustainable?
from **niche** to **norm**—
pre-competitive is key
The Consumer Goods FORUM
The Global Network Serving Shopper & Consumer Needs
the issue is risk both raw materials & reputation
Components of S&P 500 market value

<table>
<thead>
<tr>
<th>Year</th>
<th>Tangible assets</th>
<th>Intangible assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>17%</td>
<td>83%</td>
</tr>
<tr>
<td>1985</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>1995</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>2005</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>2009</td>
<td>19%</td>
<td>81%</td>
</tr>
</tbody>
</table>

Source: Ocean Tomo
“If you don’t know where you’re going, any road will get you there.”
think about it