GLOBE EU conference
Sustainable Food and Land Use Systems

Resource efficiency as a tool to give back to nature

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Nature-based sector is a giant

- Largest economic sector
  - 50% nature-based GDP (WEF)
  - Food system GDP in France 36%
- Largest employer (Ag: 1 [2.5] billion)
  - 65% of working poor depend on ag
  - Largest source of childlabor
- AFOLU 23% of total GHGs emissions
  - Food system (21-37%)
  - Negative emissions [11.2 GtCO2/yr]
- Largest driver of Biodiversity decline
  - Largest source of Risk
Giant in resource inefficiency

- **Agricultural Production**: Land Sparing versus Land Sharing (Technical Potential)

- Food loss and waste

- Diets
Land Sparing

What if we produced crops with best available technology everywhere?

• Max Land Sparing: BAT + At best locations

• Targeted Land Sparing: BAT + At best locations & keep at least 30% of today’s cropland
Other environmental impacts
Overcoming barriers to the Sustainability Transition

From produce to produce sustainably

- Even 1/3 less if we were to incentivize billions of consumers for better diets
- Nudge 1/2 billion farms
  > 20% cost saving
- Deal with large biophysical and social heterogeneity
- Overcome lack of data, information, knowledge, capacity, capital etc...
- Break political inertia

⇒ Governance innovation through “micro-targeting/incentivising”
⇒ Navigating policy transition risk