



The Future  
of Food: One  
People, Two  
Systems

The story of agriculture and food, is a tale of two distinctly different worlds, as it pertains to what we eat



**1.4 billion people** are **overweight or obese**, driven by cheap calories and a comfortable lifestyle



**2 billion people** lack the **nutrients** to grow properly, and sustain a long and healthy life

...and the same is true as it pertains to the means of producing the food we consume



**Sophisticated farming techniques and a myriad of technologies** account for yields once only imagined



Current productivity in Sub-Saharan Africa is often **10-15% of attainable yields** for similar conditions in the developed world



Meanwhile, significant demographic shifts are changing global demand for food; increasing stress on the entire food system



### Food Demand Is Growing

- The world population is expected to reach **9.5 billion people** by 2050, **increasing global food demand by 60%**
- Most of the growth will come from developing markets, with **Africa** expected to **double its population from 1 to 2 billion** by 2050



### Food Demand Is Changing

- Populations are becoming more urbanized, with **2.5 billion additional urban residents** projected in Africa and Asia by 2050
- A **rising urban middle class** in developing markets will **shift diets** toward more **processed foods, meat and dairy**, all of which increase stress on a stretched and fragile ecosystem

...so, if that's the world we live in today, what does the future hold in store for us? The plain answer is - we don't know, but are in the process of conducting unique analyses to find out...



Scenario planning can help us analyze these challenges and articulate potential futures

Deloitte is collaborating with the World Economic Forum and world-class experts to develop a scenario planning of the future of global food systems

What will be the rate and direction of shift in **consumer demand**?

What will be the rate and impact of **extreme weather events**?

How will **trade policies** evolve and will **global commodity markets** be resilient?

What will be the rate of availability and **large-scale adoption of technology**?

What will be the **security landscape** and how will **migration** change?

For the time being, there seem to be a number of interesting developments - promising trends and solutions which are emerging across the food system

### Technology

- Industrial biology and nanotechnology
- Targeted gene manipulation and CASPR
- Robotics & autonomous vehicles
- Big data, analytics and IoT



### Policy

- National agriculture policies and investments
- Free trade agreements (e.g. TPP)



### Business Models



- Multi-stakeholder partnerships
- Farmer-focused outcomes based models and solutions"

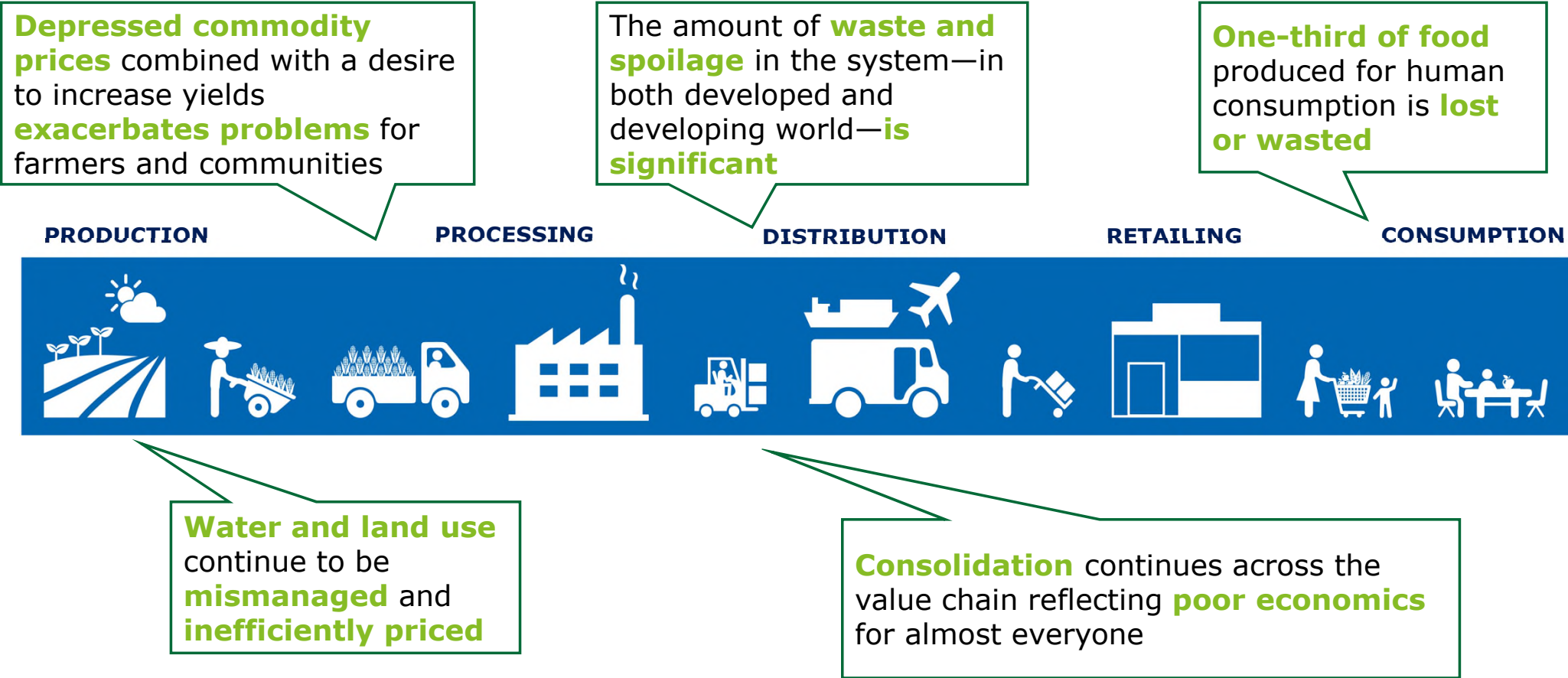
### Consumer Preference



- Demand for healthy, organic, local products
- Awareness of sustainability & corporate responsibility



# While these developments have the means of dramatically improving the state of affairs, key challenges remain



# In Summary...

Mission #1: Feed the Planet. Safely, Sustainably, Economically

Safely: food needs to be safe, and provide the right nutritious value to the consumer

Sustainably: we cannot continue to negatively impact the earth's precious resources (land, water, air) as we do, without severe consequences

Economically: the economic equation for players along the value chain is a critical element to achieving the first two tenets



The Food System needs to undergo major transformation, and to do so we need new approaches and extensive coordination among all stakeholders

Market-based approaches, while not the only answer, will be an important tool in the "toolbox" to drive change – providing the efficiency, scalability and market-based incentives to power a large-scale effort.

## Additional resources:

- Deloitte press release: [Food and sustainability challenges can be addressed through new partnership model](#)
- Series of blog posts about food systems issues: [Reshaping the world's food systems](#); [The strategic importance of smallholders](#); [Shifting toward nutritious, safe, and sustainable diets](#)



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