



STI FOR SUSTAINABLE FOOD CONSUMPTION AND PRODUCTION

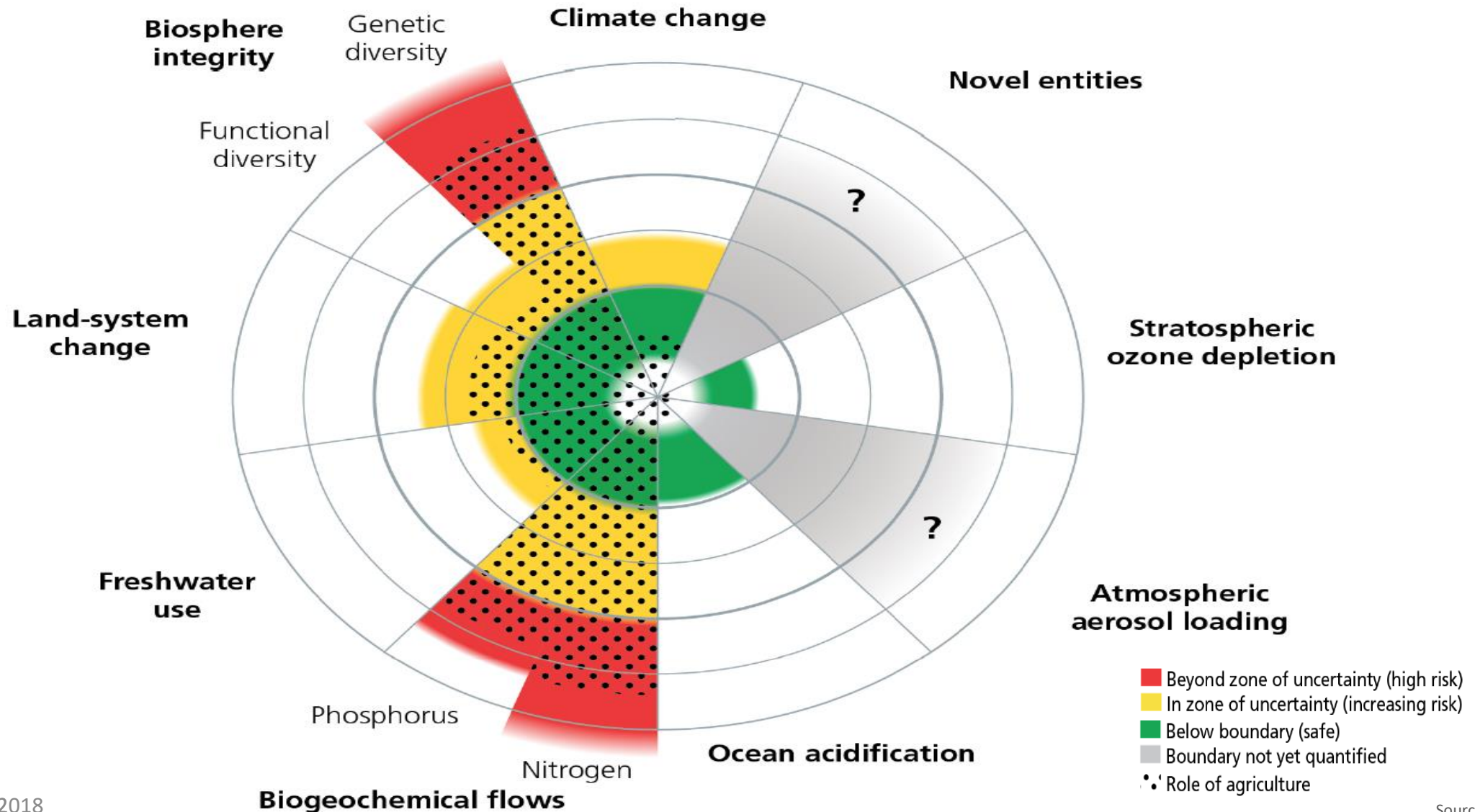
Shenggen Fan | Director General
International Food Policy Research Institute

New York, NY | June 5, 2018



IFPRI

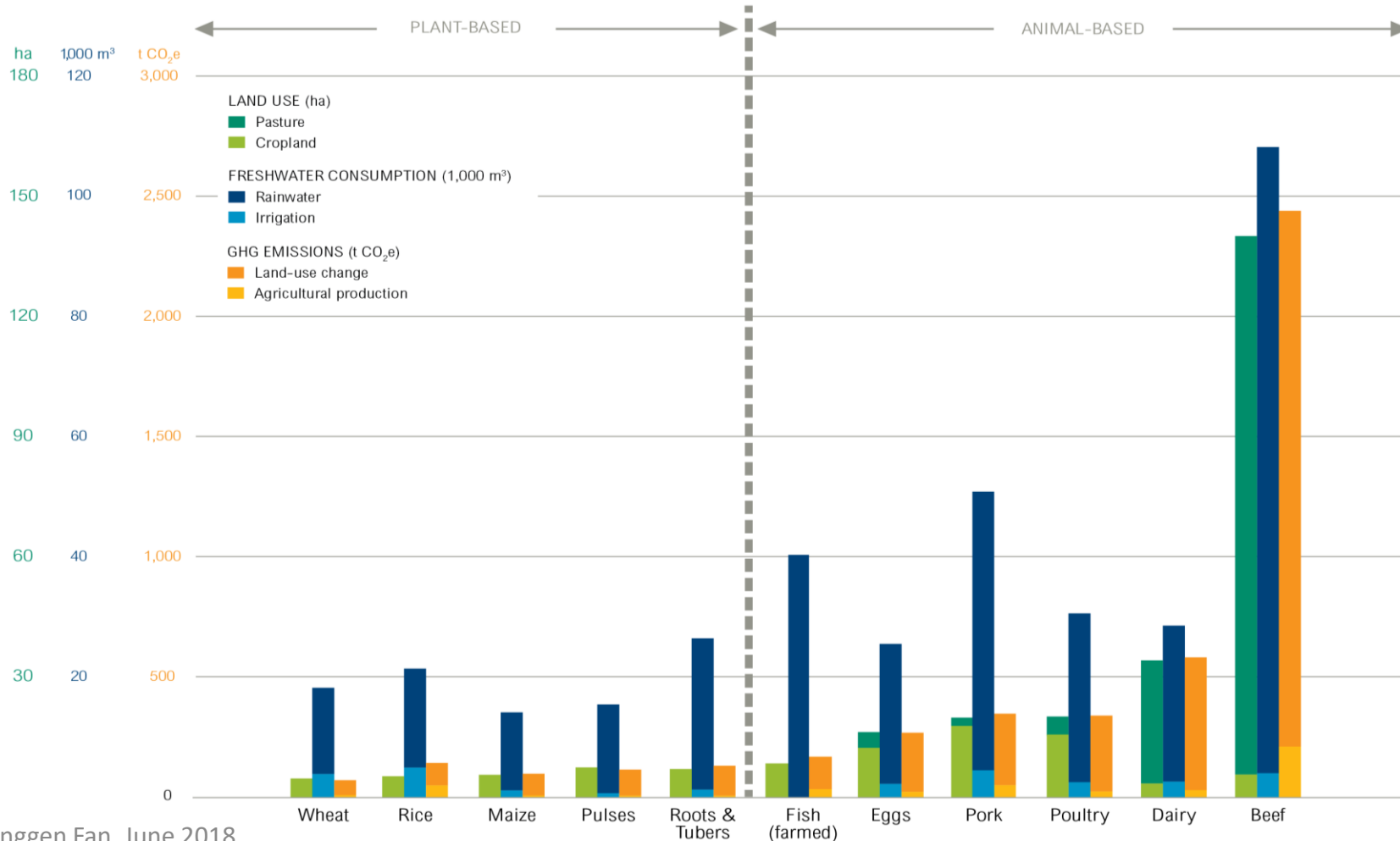
Agriculture is pushing planetary boundaries



Our food consumption impacts the environment

Environmental footprint of various foods

PER TON PROTEIN CONSUMED



Under usual technologies,
beef and other ruminants
 account for
20 more times
 the land use &
GHG emissions than
 pulses per unit of protein
 consumed

Food loss and waste is a global concern

Environmental impact of food loss and waste



Food loss and waste is responsible for about **8%** of global **greenhouse gas (GHG) emissions**



Volume of **water** used to produce lost or wasted food is equivalent to three times the volume of **Lake Geneva**



Nearly **30%** of the world's **agricultural land** is currently occupied to produce food that is ultimately never consumed



If food use and **distribution** is better managed, **14%** of all **GHG emissions** from **agriculture** could be avoided by 2050

Food loss and waste comes in different shapes



In developing countries
40% of losses occur during **harvest** and **processing level**



In industrialized countries
40% of losses happen at the **retail** or **consumer level**



Destroyed in transport



Not bought at a supermarket



Thrown away by the consumer

Science, technology, and innovations are crucial

Support multiple-win technological innovations

- Yield enhancing technologies (e.g. Remote sensing, precision agriculture)
- Improved, climate-resilient varieties (e.g. cross-bred soybeans, heat tolerant wheat)
- New, transformative technologies (e.g. alternative proteins, gene editing)



Enhance policy innovations for sustainable and nutritious diets

- Reform subsidies for nutrient-poor foods
- Tax emission-intensive foods
- Fully price food with true cost of natural resources, climate change, and health impact
- Target social protection for poor and vulnerable population to access healthy, nutritious foods



Promote evidence- and science-based approach to reduce FLW

- Improve post-harvest technologies and infrastructure
- Utilize ICTs to distribute soon-to-expire foods
- Fix the fundamentals

