

# **INNOVATING GLOBAL FRUIT & VEGETABLE FOOD SYSTEMS TO HELP BRING SUSTAINABLE NUTRITION SECURITY**

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**OUR  
MISSION,  
SHOULD WE  
CHOOSE TO  
ACCEPT IT ...**



# Position Paper: Proposed Process

- Outline (see next slide)
- We are all invited to serve as co-authors
- Dave willing to serve as a Convening Lead Author (CLA), more CLA's welcome
- Before leaving Keystone, please provide two paragraphs of text (instructions to follow)
- Final paper to be submitted to a peer-reviewed journal

# Position Paper: Proposed Outline

- **Introduction, setting the overall context** (*mostly already completed from other projects*)
- **F&V crop production challenges & opportunities**
- **F&V supply chain resilience & sustainability**
  - **Environmental**
  - **Economic**
  - **Social**
- **Roles (current and potentially more helpful) of Consumers, Industry & Policy**
- **Conclusions & Recommendations**

# Position Paper: Two Paragraphs

- **Within your current area of expertise, please summarize the most important:**
  1. **Challenges for F&V food systems**
  2. **Opportunities for improving F&V food system outcomes**
- **Please also include citations for the 2-3 papers that you believe help support these assertions**
- **Let's all do this tomorrow morning (9 am)**

# Position Paper: Next Steps

- **Send paragraphs to Dave, cc: Alyson & James tomorrow morning**
- **Dave (and CLA volunteers) combine material into a cohesive first draft (end-August)**
- **All co-authors review and provide feedback back to Dave *et al.* (end-September)**
- **Feedback incorporated and manuscript submitted for publication (October 2018)**

# Position Paper: Target Journal?

- *Advances in Nutrition (Perspectives)*
- *BioScience*
- *Nature XXX*
- *PNAS*
- *Science*
- others?

# Project Proposal: Overview

- **Title similar to the Position Paper:**
- *Innovating Global Fruit & Vegetable Food Systems to Help Bring Sustainable Nutrition Security*
- **All here are invited to serve as PI's**
- **Dave willing to serve as a Co-Lead, other volunteers welcome**
- **Proposed project team structure**
- **Possible funder(s)**



# **Project Proposal: Mission**

**Conduct the research needed to fill the data & information gaps that would better inform future actions & interventions intended to improve outcomes in global F&V food systems**

# Project Proposal: Key Elements

- **Assess current and future F&V crop production capacity w/ current & new production methods**
- **Identify and evaluate adaptation & mitigation opportunities in F&V food systems as global production capacity is increased**
- **Develop and analyze policy & other interventions (including potential “disruptive technologies”) that would lead to more equitable F&V food system outcomes**

# Proposed Project Team Structure

- A leading option would be under the AGCI umbrella (other models possible)
- Multiple Co-Leads (TBD)
- Advisory Committee (diverse)
- Global in scope, likely including additional PI's and Co-Leads not able to attend this week's workshop

# **Project Proposal: Breakout Sessions**

- **To be held tomorrow (11 am)**
- **Please choose which session you would like to join:**
  1. **Options for project team structure**
  2. **Assessing global F&V production capacity**
  3. **Adaptation & mitigation opportunities**
  4. **Pursuing more equitable outcomes**

# Project Proposal: Target Funder(s?)

- **Foundations**

- BMGF
- FFAR (50% match from non-Federal sources)
- Rockefeller
- others?

- **Government(s?)**

- **Private Sector Consortia (towards match only)**

- **others?**

# Project Proposal: Next Steps

- Breakout session outputs sent to Dave, cc: Alyson & James
- Dave schedules initial call with Co-Leads to review inputs and develop strategy
- Schedule conversations with potential funders
- Planned side-event at the upcoming SF Climate Action Summit may be a strategic opportunity
- Stay tuned ....

# BACK-UP SLIDES

# Food Systems are Directly Involved in at Least 7 of the 17 SDGs





# Current Nutrition Outcomes from the Global Food System are Unacceptable

Insufficient cals  
Insufficient nutrs  
currently ~ 1 billion

Sufficient cals  
Insufficient nutrs  
currently ~ 2 billion

Sufficient cals  
Sufficient nutrs  
currently ~ 3 billion

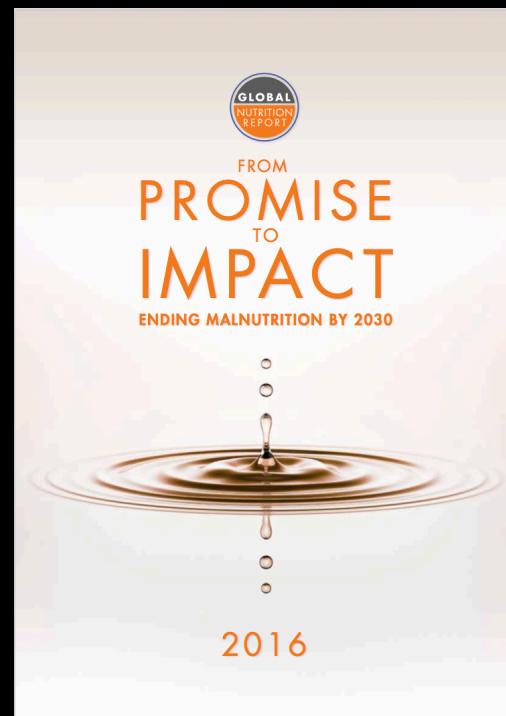
Excess cals (incl. some with  
insufficient nutrs)  
currently >2.5 billion

## Under nutrition:

- Poor nutrition: 171M stunted children
- Vit-A deficiency: 250-500K children blinded/yr
- Fe deficiency: 46K DALYs lost/yr
- Zn deficiency: 433K deaths 0-5yrs/yr

## Over nutrition:

- Overweight or obese adults: 2.5B globally
- US children and adolescents: > one third
- Diabetes sufferers: 382M globally



Different, overlapping forms of malnutrition is  
the 'new normal' (IFPRI 2016)

# Current Environmental Outcomes from Food System are Unsustainable

**Agriculture has already led to:**

- **Soil** 33% degraded
- **Fresh water** 20% aquifers overexploited
- **Biodiversity** 60% of loss

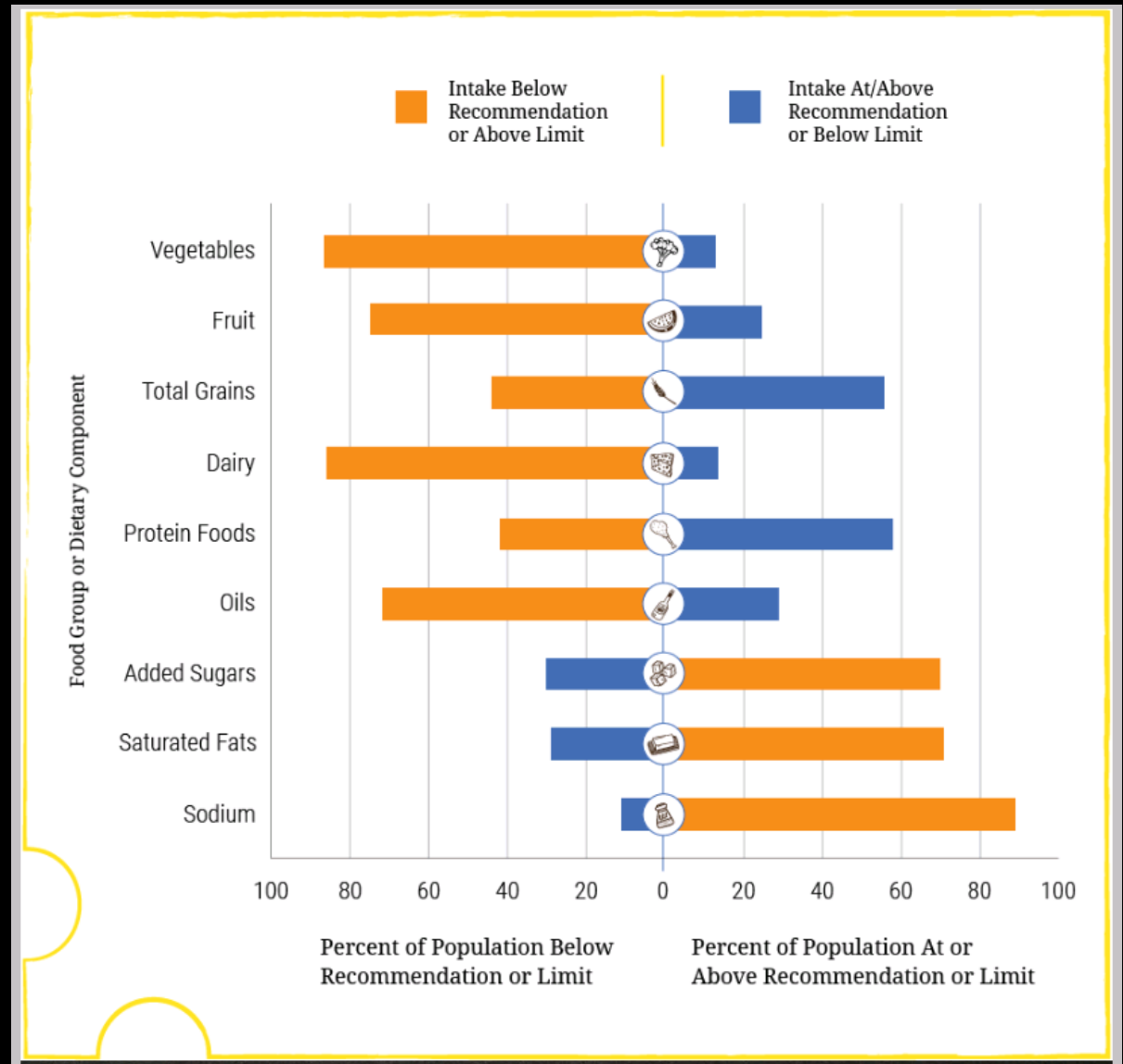
**Minerals** >80% losses farm-to-fork

**And contributes**  
**24% of total GHG emissions**



source: [UNEP \(2016\)](#) *Food Systems and Natural Resources. A Report of the Working Group on Food Systems of the International Resource Panel.* Westhoek, H, Ingram J., Van Berkum, S., Özay, L., and Hajer M.

# Current US diets fail to meet USDA guidelines for F&V consumption



Source for chart: [USDA, 2015-2020 Dietary Guidelines for Americans.](#)

# Food Systems Provide Sustainable Nutrition when they ...

- **Meet human nutrition needs**
- **Mitigate future climate change ( GHGs)**
- **Conserve natural resources (soil, water)**
- **Make diverse diets affordable and available**
- **Enhance sociocultural wellbeing**
- **Possess resilience to shocks**
- **Maintain value chain viability**
- **Minimize food loss & waste**