



FEED THE FUTURE

The U.S. Government's Global Hunger and Food Security Initiative

Ending Hunger and Undernutrition: Achieving SDG 2



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USAID
FROM THE AMERICAN PEOPLE



Progress and Commitment

- ***Rates of hunger and poverty declining***
- ***Agriculture-Nutrition linkages***
- ***Stunting rates coming down, but still high***
- ***Global Commitment in SDG 2***
- ***Global Food Security Act signals US support***

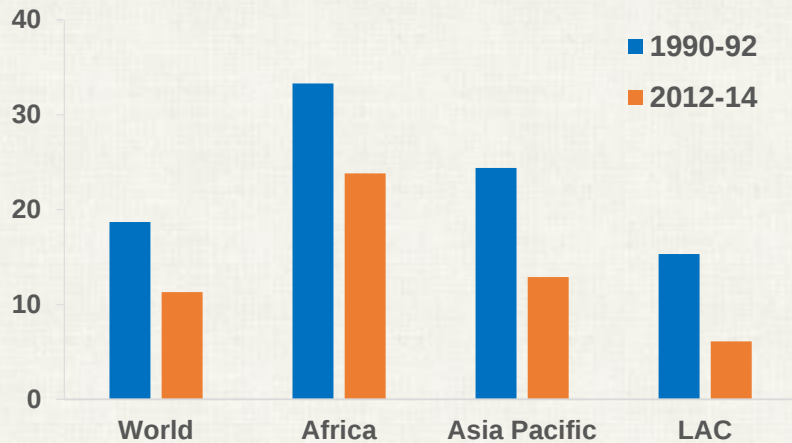




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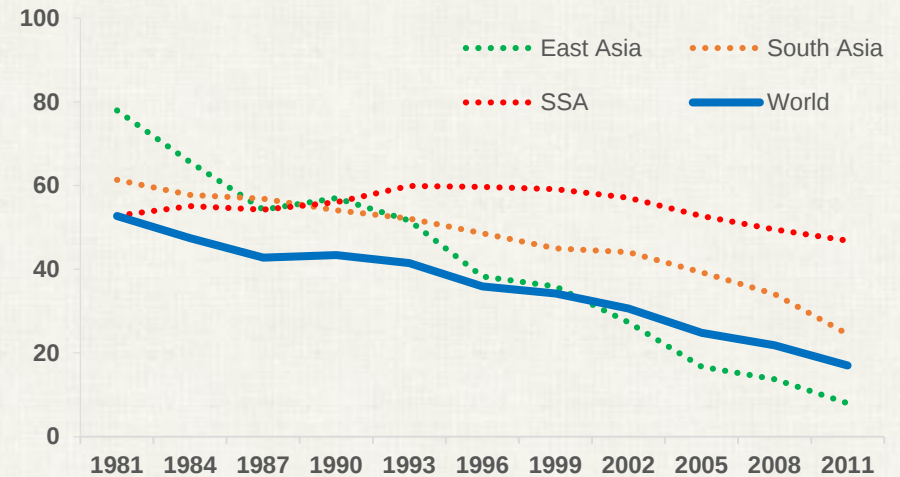
Poverty and hunger declining –but Africa lags

Prevalence of undernourishment (%)



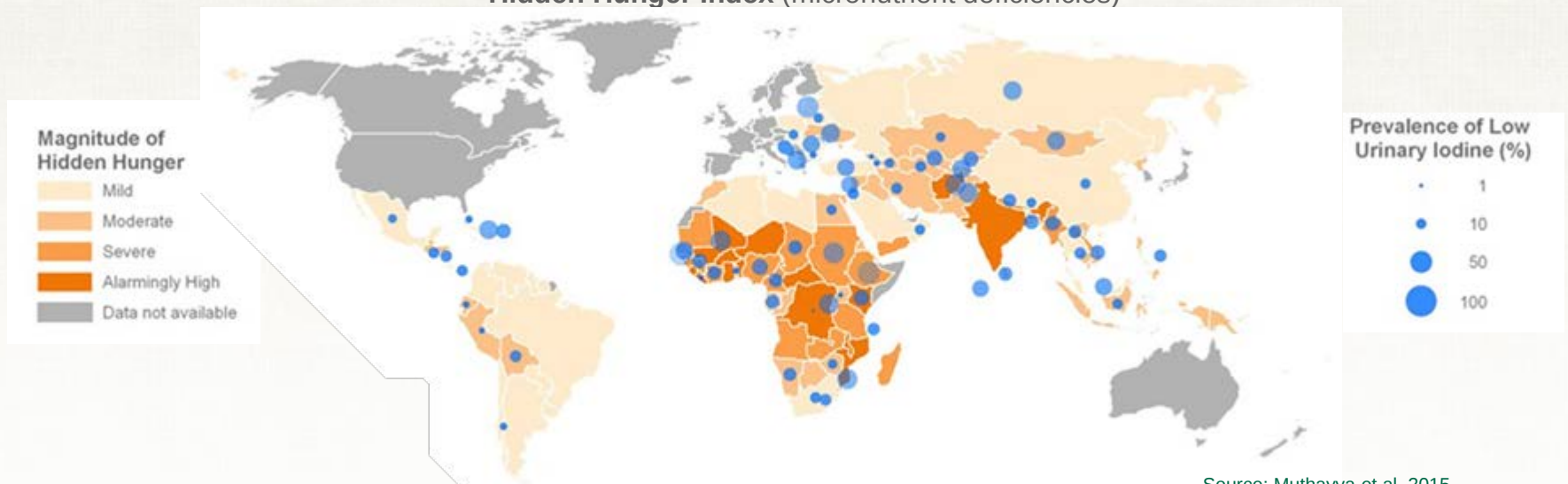
Source: FAO 2015

Prevalence of poverty (US \$1.25/day, 2005 PPP), (%)



Source: PovCalNet 2015

Hidden Hunger Index (micronutrient deficiencies)



Source: Muthayya et al. 2015



About **870 million** people suffer from chronic hunger

More than 3.5 million children die from undernutrition each year

The world's population will increase to more than **9 billion by 2050**

Food production will have to **increase by 60% by 2050** to feed the world

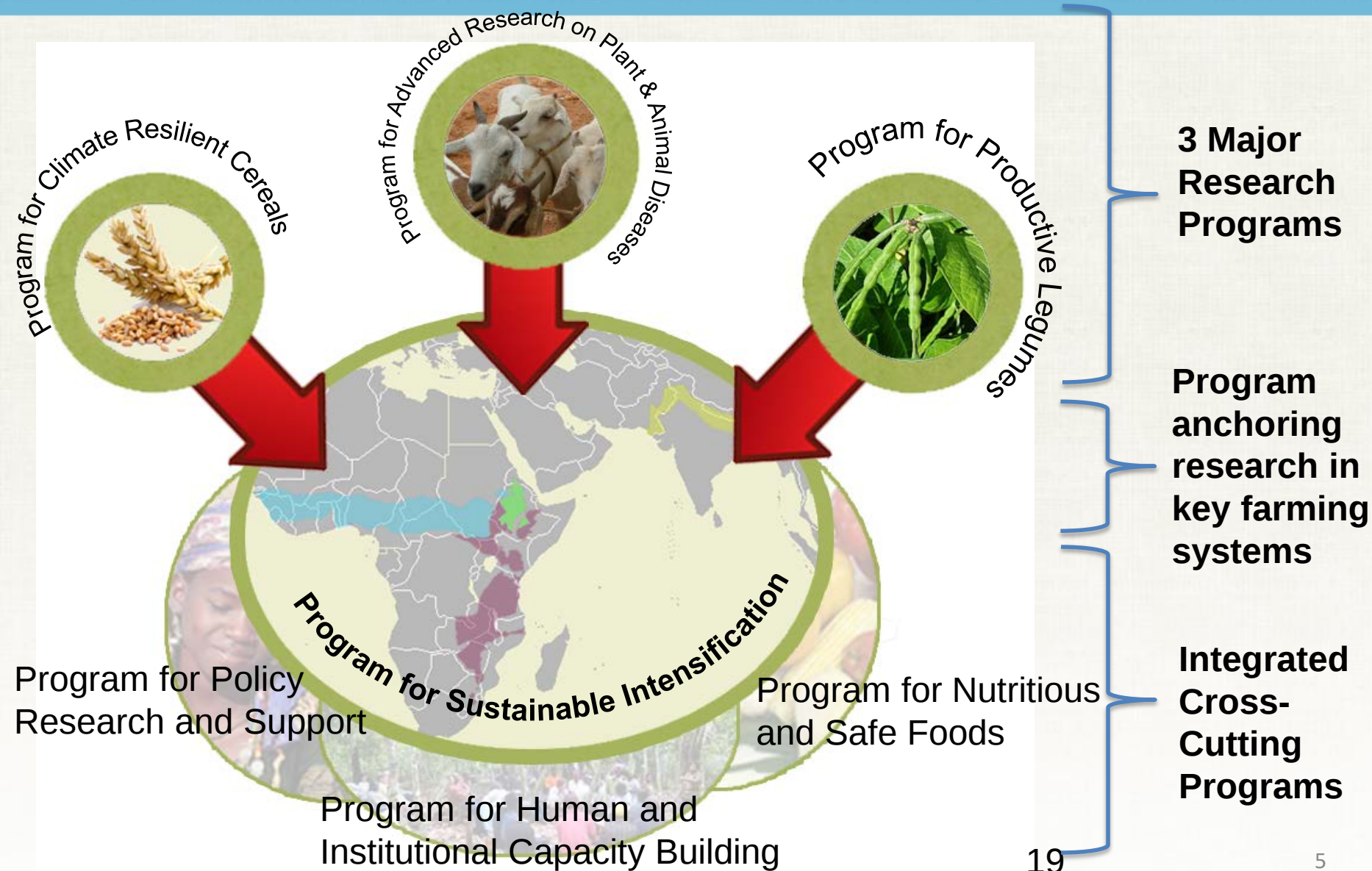
Agricultural production will be significantly impacted by **climate change**



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Food Security Innovation: Research





Building on Feed the Future Success

- July 2016 enactment of the **Global Food Security Act (GFSA)** of 2016
 - Passed with broad **bipartisan majority**
 - **Institutionalized** the Feed the Future approach to improving food security and nutrition
 - Required a whole-of-government, five-year **Global Food Security Strategy**



Goal: Sustainably reduce global hunger, malnutrition, and poverty

Objective 1

Inclusive and sustainable
agricultural-led economic growth

Objective 2

Strengthened resilience
among people and systems

Objective 3

A well-nourished population,
especially among women and children

IR 1

Strengthened
inclusive
agriculture
systems that are
productive and
profitable

IR 2

Strengthened
and expanded
access to
markets and
trade

IR 3

Increased
employment
and entrepre-
neurship

IR 4

Increased
sustainable
productivity,
particularly
through
climate-smart
approaches

IR 5

Improved
proactive risk
reduction,
mitigation, and
management

IR 6

Improved
adaptation to
and recovery
from shocks
and stresses

IR 7

Increased
consumption
of nutritious
and safe diets

IR 8

Increased
use of direct
nutrition
interventions
and services

IR 9

More hygienic
household and
community
environments

Cross-Cutting Intermediate Results (IR)

CC IR 1 Strengthened global commitment to investing in food security
CC IR 2 Improved climate risk, land, marine, and other natural resource management
CC IR 3 Increased gender equality and female empowerment

CC IR 4 Increased youth empowerment and livelihoods
CC IR 5 More effective governance, policy, and institutions
CC IR 6 Improved human, organizational, and system performance

Effective response to emergency food security needs

Complementary Results

Long-term food security efforts benefit from and contribute to complementary work streams that promote:

Economic growth in
complementary sectors

Healthy ecosystems and biodiversity

Stable, democratic societies that respect
human rights and the rule of law

A reduced burden of disease

Well-educated populations

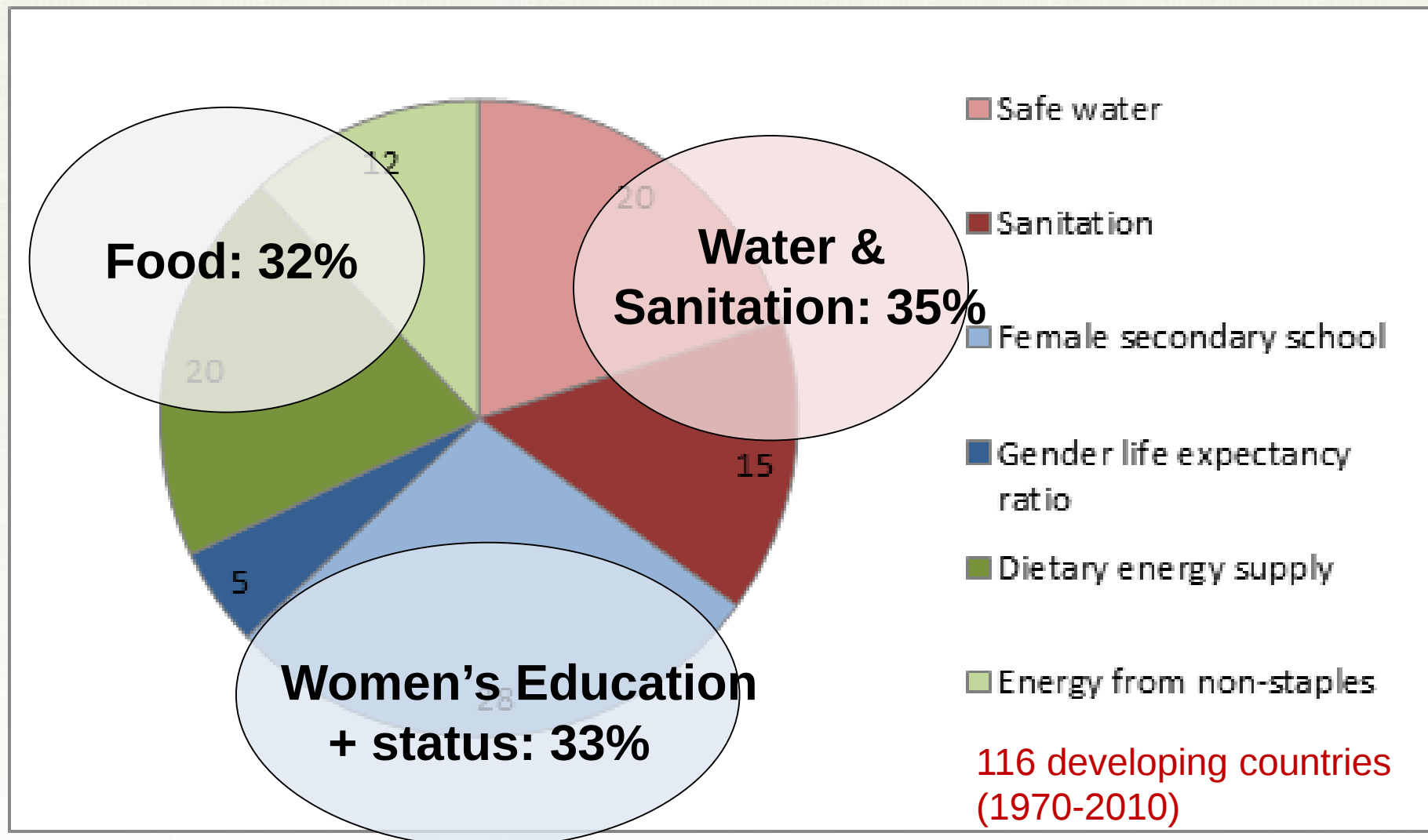


What Works to Reduce Undernutrition?

- **Nutrition-specific** interventions are those that address the immediate causes of undernutrition
 - Health Status
 - Nutrient Intake
- **Examples**
 - Infant and Young Child Feed Practices/ENA
 - Micronutrient fortification/supplementation: Iron, Zinc, Vit. A
 - Integrated Management of Child Illness
 - Community Management of Acute Malnutrition



Contribution of Different Sectors to Improving Nutrition Globally





Nutrition-Sensitive Agriculture

- Target production of nutrient-rich foods, ideally those that include nutrients lacking in diet
- Include behavior change communication component specifically aimed at consumption of target crops
- Ensure target food availability and affordability in local markets and support consumption education
- Measure outcomes, including intermediate targets such as consumption and market availability



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Adaptation: We must first adapt to existing climate variability



The previous El Niño caused **35** billion USD in **global economic losses**

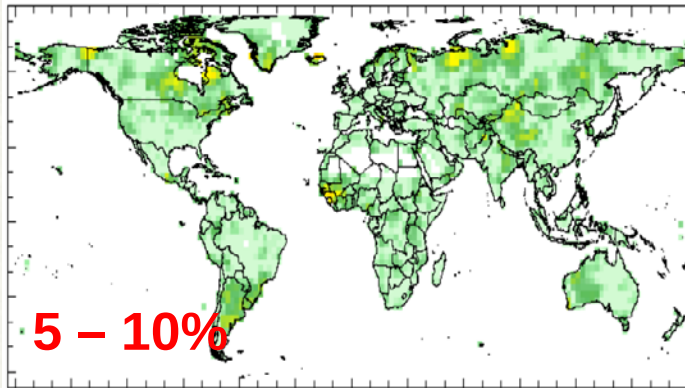
By the **end of 2016** an estimated **40** million people were expected to be **food insecure** in southern Africa



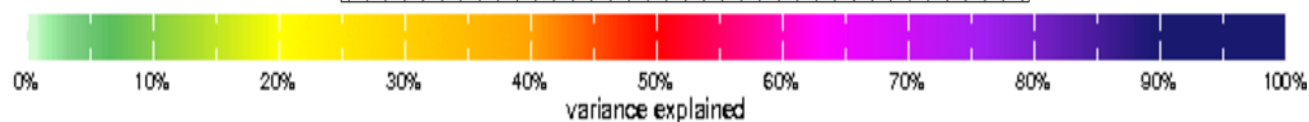
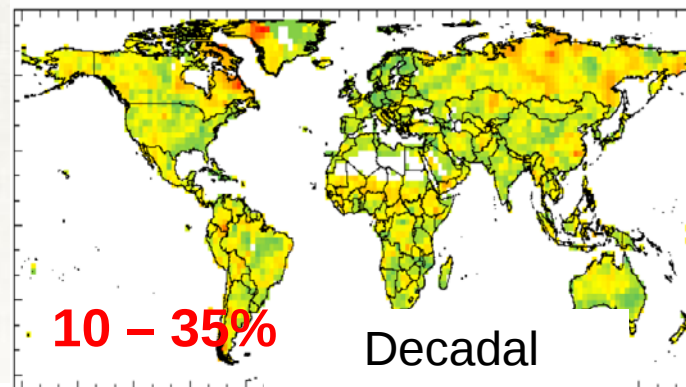
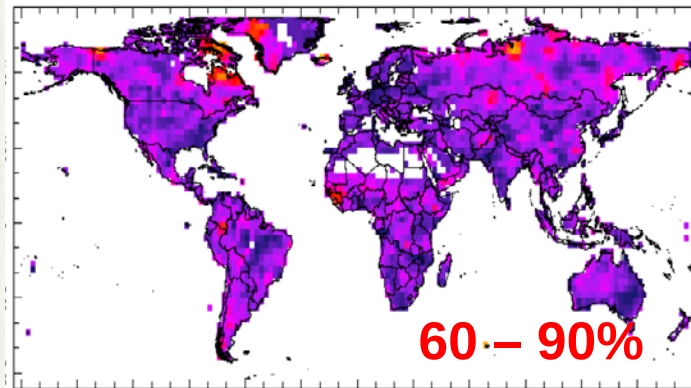
Climate Varies Over Time: Which variation is most important? (Precip)

Example: Observed Annual Rainfall in the Last 100 Years

Trend ("Climate Change")

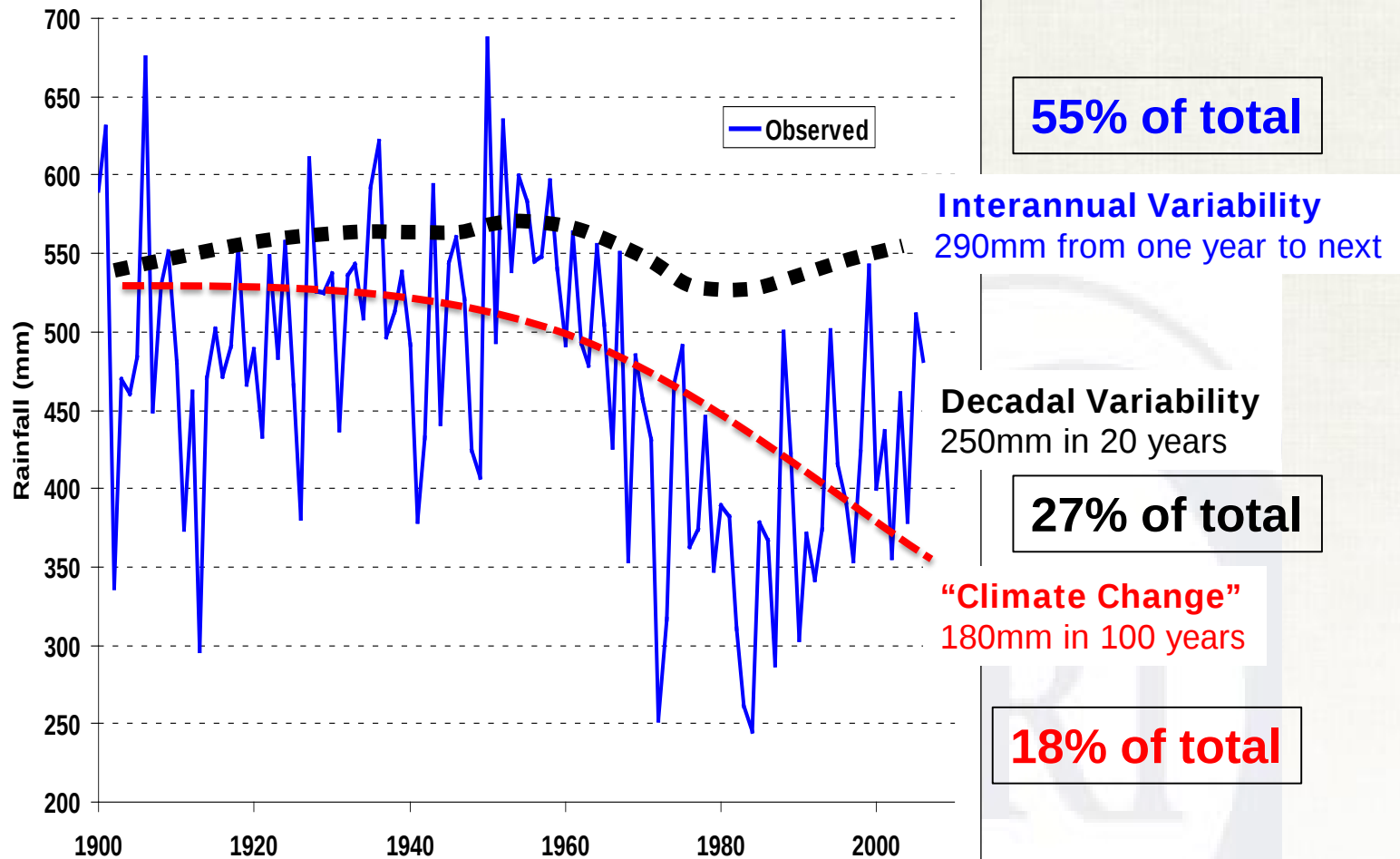


Interannual (year to year)





Example: Annual Precipitation over the Sahel





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Stress Tolerant Maize during El Niño



SC513

Murewa, Zimbabwe



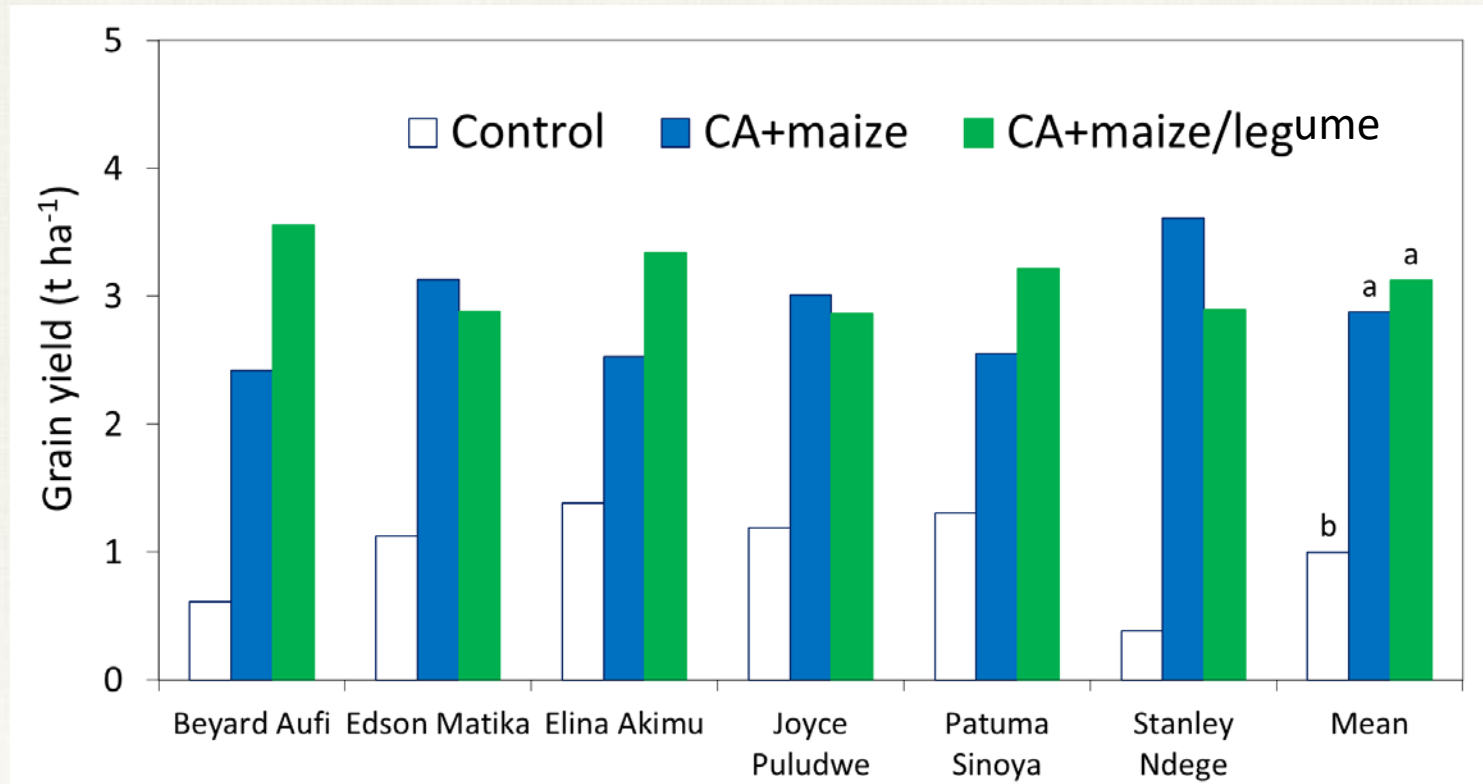
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Peter Setimela



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Conservation agriculture (CA) systems during El Niño

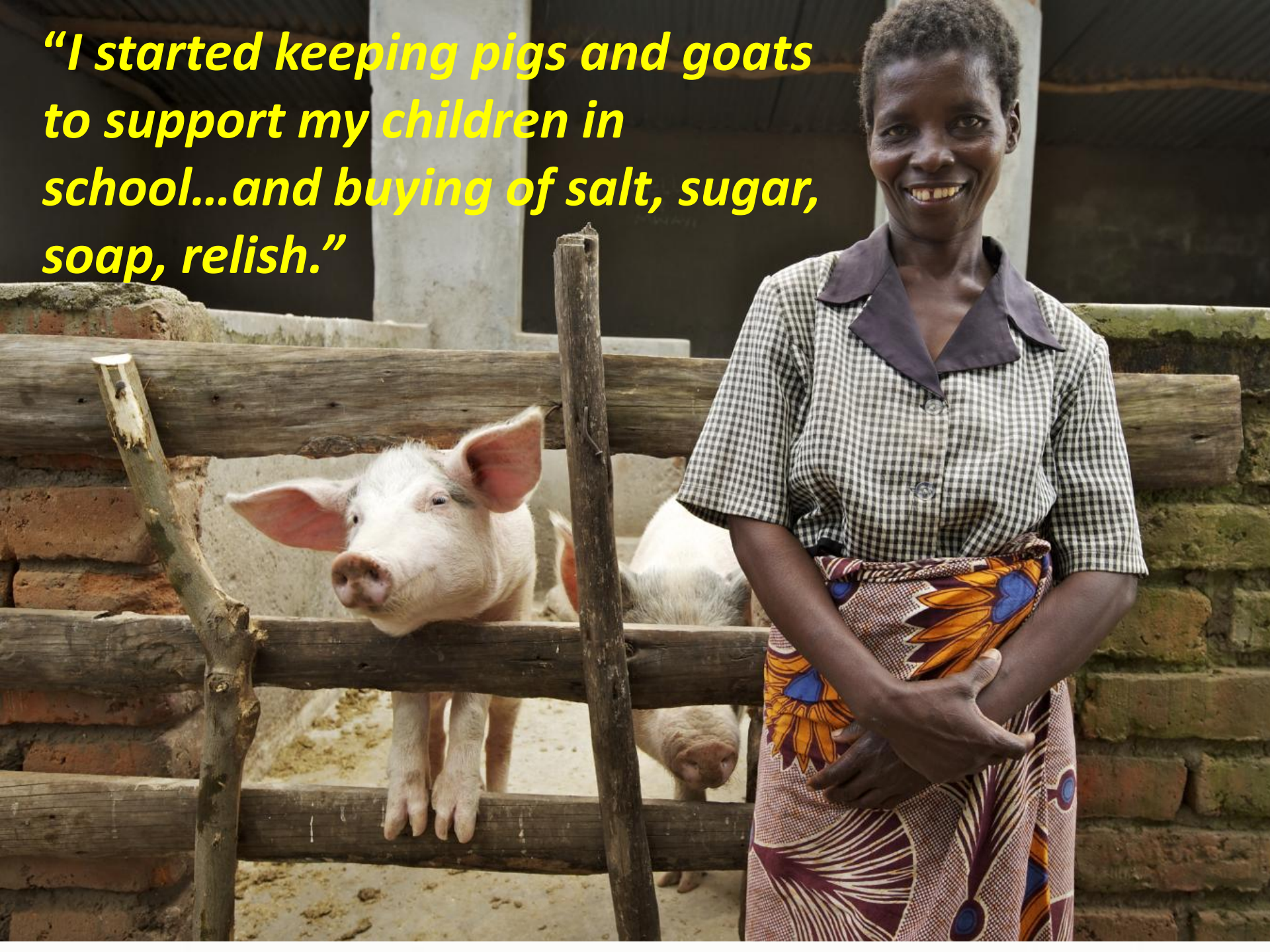


2 t ha⁻¹ yield benefit of conservation agriculture in Malawi
Drought tolerant varieties make better use of residual soil moisture

**Rhoda Mang'anya supports 7 people on ~1/2 ha.
Today she uses improved maize varieties and
fertilizers, but only because of what else she does.**



“I started keeping pigs and goats to support my children in school...and buying of salt, sugar, soap, relish.”





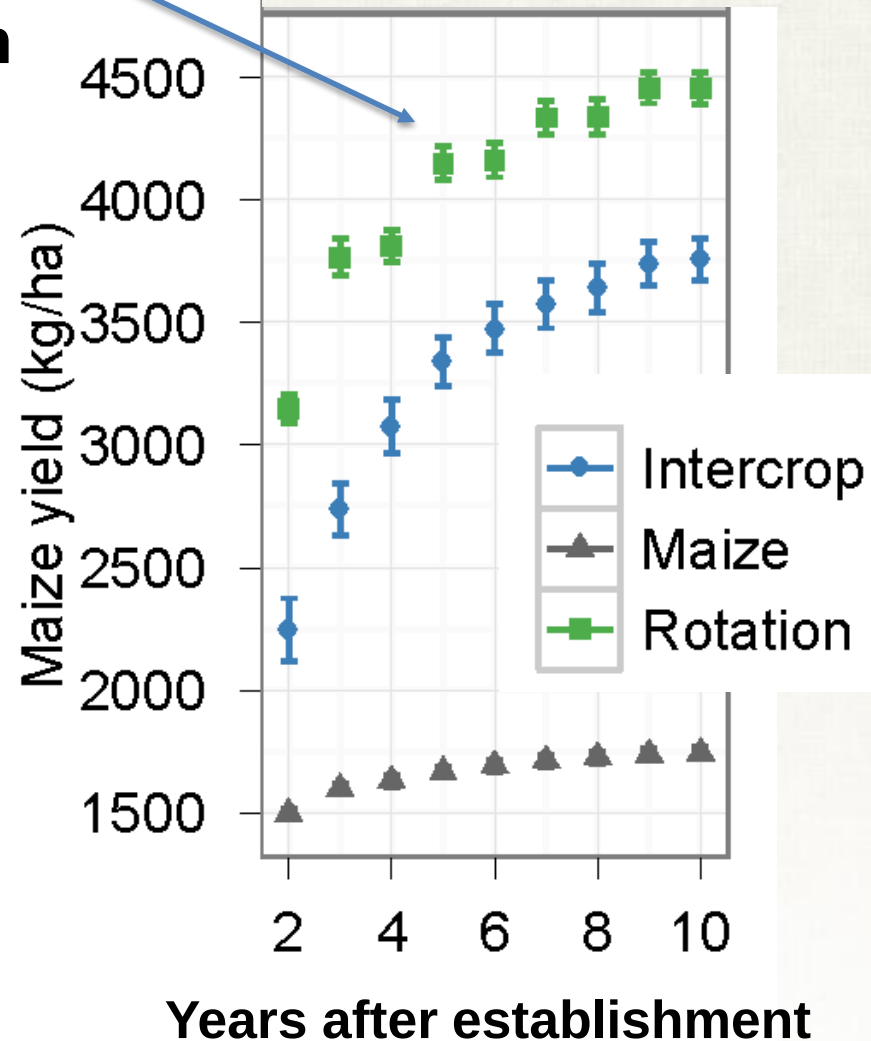


Resilient, diversified production systems

**Doubled-up pigeon pea/
legume rotation**

**Resilient legumes =
more biomass =
resilient soils =
higher, more
reliable yields**

Ollenburger and Snapp, 2015





Addressing infectious diseases in animals

- **Improve livestock management**
- **Breed resistant animals**
 - New genomics tools
- **Develop vaccines**
 - Thermostable for improved transport





We have to intensify agriculture, but sustainably

- The challenge is to achieve sustainable transformation via smallholder farmers
- Existing and future technologies are essential
- Farmer choice—seeds, fertilizer, breeds
- Resource-use efficiency (water, fertilizer, fuel)
- Context for technology scale-up is crucial
- Integration of multiple technologies is needed
- Information—weather, market, extension
- Reduce risk—catalyze investment at all levels



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Please See our Feed the Future Website



Thank You!

www.feedthefuture.gov