Food insecurity: Are we at risk and what to do about it?
## Six A’s of food security

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Focus</th>
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<tbody>
<tr>
<td>Availability</td>
<td>Food in sufficient amounts to meet people’s needs.</td>
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<tr>
<td>Accessibility</td>
<td>People are assured physical and economic access to food.</td>
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<tr>
<td>Adequacy</td>
<td>Food that is nutritious, diverse and safe in accordance with that needed to maintain health, while being produced in environmentally sustainable ways.</td>
</tr>
<tr>
<td>Acceptability</td>
<td>Food that is culturally acceptable and/or food produced and obtained in ways that do not compromise people’s dignity, self-respect and human rights.</td>
</tr>
<tr>
<td>Agency</td>
<td>The policies and processes that enable the achievement of food security</td>
</tr>
<tr>
<td>Absorption</td>
<td>The physiological capacity to absorb nourishment from food</td>
</tr>
</tbody>
</table>
The South African Food System

Contestation
Gender & Identity
Ethics & Values
Contestation
Governance
Policies & Rights
Safety & Control
Governance
Consumption
Nutrition & Health
Diet & Behaviour
Consumption
Distribution
Value Chains & Livelihoods
Markets & Prices
Distribution
Creation
Production
Processing
Creation
A sustainable food system to realise food security and nutrition for all
The Food Security Continuum

- Starvation
- Acute hunger
- Chronic hunger
- Hidden “hunger”
  - Inadequate intake
  - Semi-adequate intake
  - Obesogenic intake
- Adequate intake but worry about future food access
- Adequate quality and sustainable intake

Hendriks 2014 using data from Stats SA 2013

12.6%  8.5%  21.1%
Trends in Availability

Legend
- SA Provincial Boundaries
- Land cover classes
- Urban
- Forestry and Plantations
- Mining
- Cultivation
- Other
- Mapping Error
- Indication of Change
- Occurrence

Trends in Availability

Production of White Maize
Trends in Access

Stats SA, 2003-2014

Stats SA, 2013, 2014
Trends in Utilisation

NFCS, 1999; NFCS, 2005; SANHANES, 2012
Trends in Utilisation

Stunting prevalence and GNI (2007-2010)
Trends in Utilisation

PSLDS, 1993; NFCS, 1999; NIDS, 2008; SANHANES, 2012
Trends in Stability

![Graph showing trends in stability with data points for food prices and CPI from 2006 to 2014.]
Trends in Stability
Trends in Stability
Food Security as a Wicked Problem

• Food security problems are not solved, at best they are only re-solved, repeatedly: they are “wicked problems” or “social messes” (Rittel & Webber, 1973)

• …do not have an enumerable set of potential solutions. Every problem interacts with other problems and is therefore part of a set of interrelated problems, a system of problems…. a (social) mess (Ackoff, 1997)

• “…a system where “no-one is in charge” (Seabright, 2010)

• … exist in a dynamic, changing world. Thus, ameliorative efforts may have substantial, yet impermanent effects (Horn & Weber, 2007)

• Solutions may generate second-order problems (Saaty & Kearns (1985)
An opportune moment
Who has the duty to deliver dinner?

- “Whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together” Jonathan Swift (1667–1745)
- We will only succeed by linking science, social science and the humanities, and robustly engaging with “the race of politicians”
THANK YOU

With thanks to our funders and supporters, without whom our work would not be possible
References

- Lang, T. (1999). The complexities of globalization: The UK as a case study of tensions within the food system and the challenge to food policy. *Agriculture and Human Values*, 16(2), 169-185.
• Tudge, C., 2003. *So Shall We Reap: How Everyone who is Liable to be Born in the Next Ten Thousand Years Could Eat Very Well Indeed; and Why, in Practice, Our Immediate Descendants are Likely to be in Serious Trouble*. Allen Lane.