Strengthening Food and Nutrition Security in Developing Countries

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Ntope Village, Tanzania (de Bruyn, 2017).
Nutritional challenges

[Map of Africa showing nutritional challenges with symbols indicating risk levels and percentages of arable land.

Legend:
- Risk of famine
- >20% of food imports
- >30% of stunting prevalence
- >15% of adult obesity prevalence
- >10% of adult diabetes prevalence

Sources: 2016 Global Nutrition Report, FAO, World Bank, WHO]
Achieving nutritious diets in resource-poor settings

**White**
- ++ protein
- + potassium
- ++ selenium

**Yolk**
- + energy
- ++ protein
- ++ choline
- ++ riboflavin
- + pantothenic acid
- + vitamin B6
- ++ vitamin B12
- + folate
- + phosphorus
- ++ selenium
- + zinc

Contribution to nutrient requirements for a 7-12 mo child (+ 20-50%, ++ >50%)
Developed from Iannotti et al, 2014

Portion sizes required for a woman to reach her recommended daily intake of iron (Gupta, 2016)

Cooked bovine liver 300 g
Cooked beef 625 g
Cooked lentils/chickpeas 700 g
Cooked kidney/butter beans 810 g
Cooked peas 1.2 kg
Spinach 2.4 kg

Mahaka Village, Tanzania (de Bruyn, 2014).
Current research in Tanzania and Zambia

http://sydney.edu.au/vetscience/research/Nkuku4U/
An interdisciplinary approach

Zambia
Ministry of Agriculture and Livestock
Ministry of Health (Public Health)
National Commission for Food and Nutrition
University of Zambia

Tanzania
Tanzania Veterinary Laboratory Agency
Tanzania Food and Nutrition Centre
Sokoine University of Agriculture
Muhimbili University of Health and Allied Sciences
University of Dar es Salaam

International
Royal Veterinary College, London
International Rural Poultry Centre, Kyeema Foundation

University of Sydney
Sydney Institute of Agriculture
School of Life and Environmental Sciences
Sydney School of Public Health
Sydney School of Veterinary Science
Charles Perkins Centre
Marie Bashir Institute

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Mahaka Village, Tanzania (de Bruyn, 2015)
Beyond Africa, our team is actively working to improve food and nutrition security in Asia and Australia.

Thank you.