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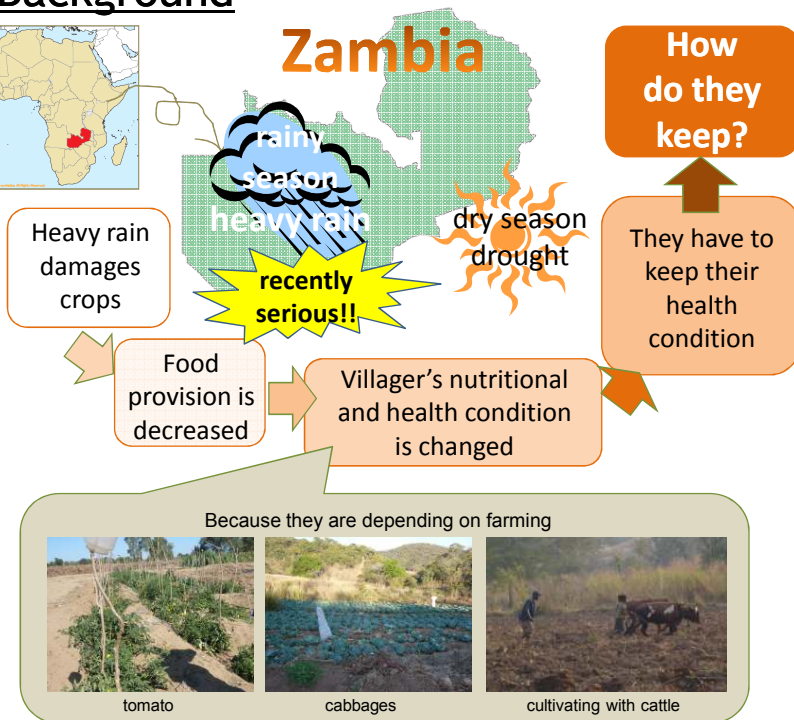


Sustainability in Health Condition of the People Living in Rural Province of Zambia

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Background



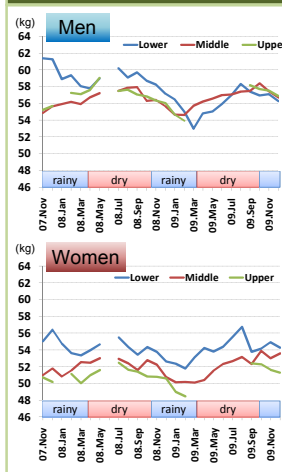
Our Investigation



- ✓ We are conducting longitudinal body measurement
- ✓ Nov/2007 ~ going on
- ✓ Subjects: Total 48 households living in the three areas in southern province which are different ecologically (Lower flat land zone, Middle slope zone, Upper flat land zone)



Variable pattern of weight for ADULTS (over 18 years old)



There is annual variable pattern

rainy season (people are busy for farming) **BOTTOM**

PEAK dry season (some people have second occupation)

- changing?**
- ✓ kinds and amount of food
 - ✓ daily activity

dietary & physical activity survey

- ✓ Aug ~ Sep/2010 (dry season)
- ✓ To know energy expenditure & intake, nutritional intake
- ✓ Actually staying with villagers during investigations.

Objective

- ✓ To reveal what are important factors for rural villagers to keep their nutritional and health condition

We can understand how people who are living in rugged environment maintain their health condition!!

Dietary Survey

- ✓ Weighing all foods a villager ate in a day (photo 1,2)
- ✓ Their staple food 'nshima' made from maize (photo 3)
- ✓ 'Kapenta' is important as source of protein in villages (photo 4)
- ✓ Women and children generally eat together from pots after household head eats (photo 5)
- ✓ Using own plate specially for weighing their share (photo 6,7)



Physical Activities & Behavioral Survey

- ✓ 'Accelerometer' counts their steps and automatically calculates the total energy expenditure (photo 1,2)
- ✓ 'Pocket GPS' records location where they are, distance they move, and velocity during moving (photo 1, 2)
- ✓ Explaining research to villagers through a local assistant (photo 3)
- ✓ Drawing water is women's work (photo 4, 5)
- ✓ Making bricks to build a school (photo 6)
- ✓ Women have league match of 'netball' (photo 7)



Further Analysis & Next Challenge

- Comparing energy balance & nutritional intake among three sites, between sexes
- Relation with socio-economic status of each household
- Conducting same research in rainy season to reveal the important factors related to seasonal variation of nutritional status