

INSTITUTE OF SUSTAINABLE LIVELIHOODS: COMMUNITY-BASED INTERVENTION STUDIES



40 Years of Academic Excellence - 1966 -2006

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“Our country is unusual and unique, and now, after all the political changes to full democracy where every citizen can actively participate equally to build our country, we are proud to offer this storehouse of splendor and beauty to our visitors”

President Thabo Mbeki
Sawubona, Aug 2002:5.



BACKGROUND

South Africa



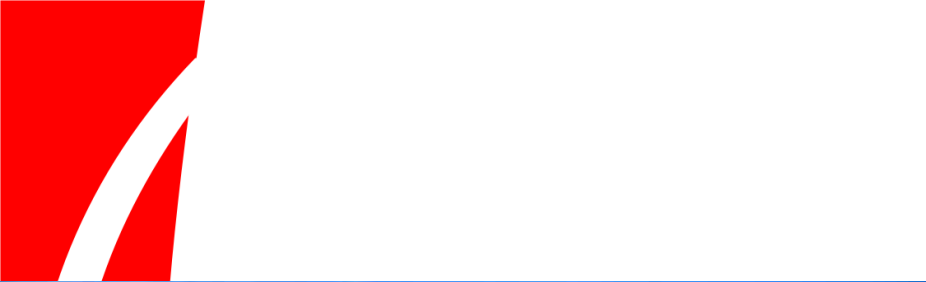
- 44 million
- 40% live in poverty
- 25% in urban areas
- 66 % of population urbanised
- 13.5 % live in informal housing
- 12 million without adequate water supply
- Estimated 20% HIV/AIDS

BACKGROUND

Vaal Region



- **Population 794 599 people**
- **85 % black**
- **54 % earn <R800 (107 US\$) per month**
- **Hh food expenditure <R100/week (13 US\$)**
- **53.6 % unemployed**
- **49.3 % of all households live in poverty** (McIlrath & Slabbert, 2003)

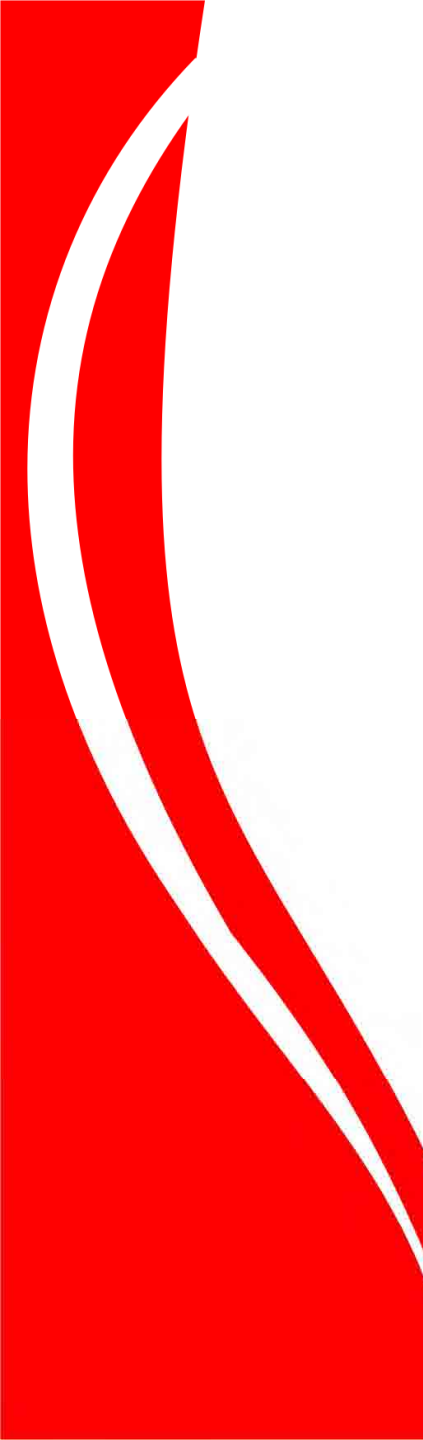
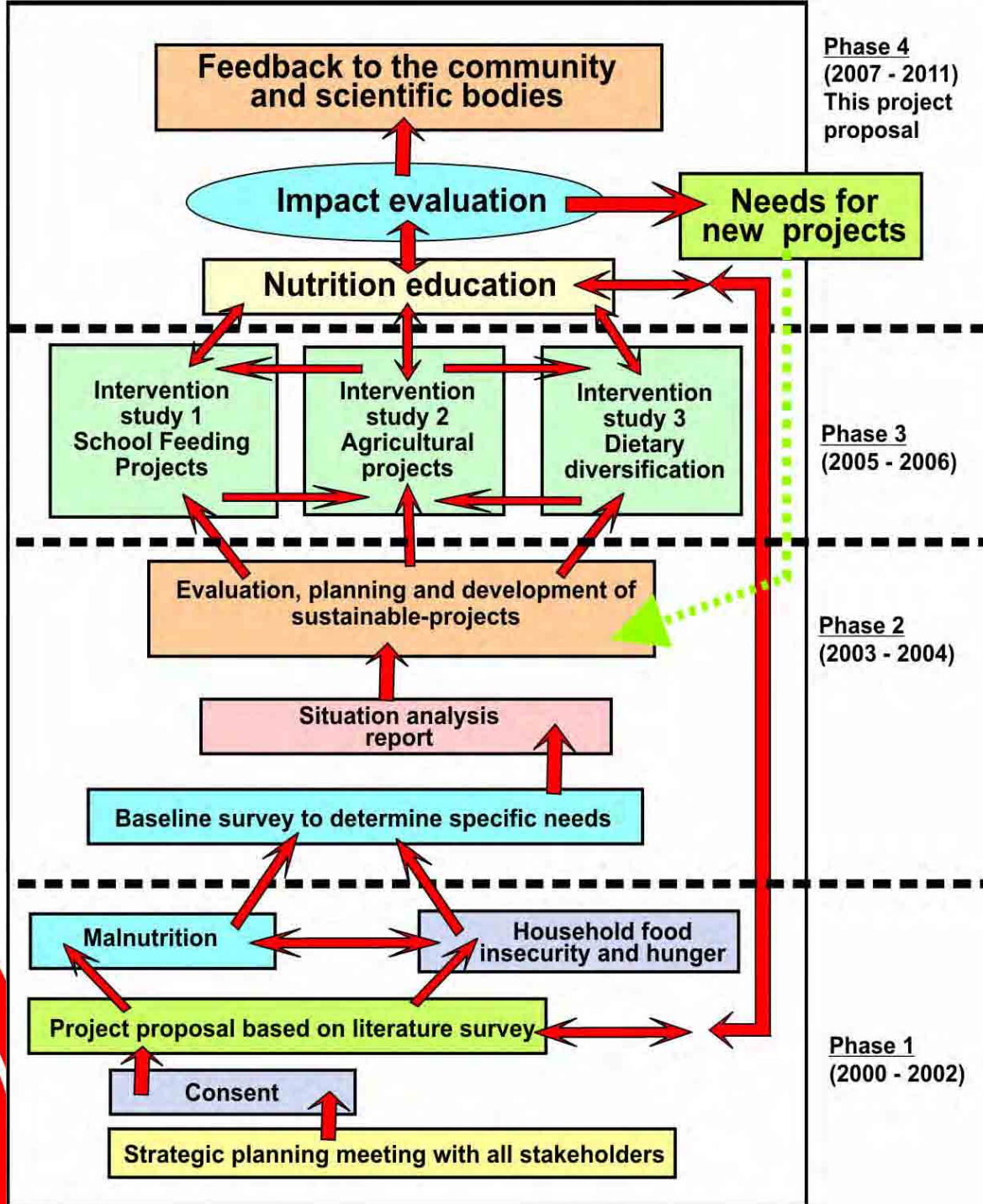


POVERTY CYCLE



MISSION

- Train and **build capacity** to **address poverty** and its **resulting consequences (hh food insecurity and malnutrition)** in **Africa**.
- Deliver **research of high quality** that is relevant, challenging and stimulating **critical thinking and create breakthroughs** and competitiveness in the field of study nationally and internationally.



FUNDING

- NRF (since 1999 – school feeding, agricultural, product development & elderly activity projects)
- VUT – Central Research Committee (all)
- SANPAD (NEP)

PRODUCT DEVELOPMENT

- Food multimix (FMM) concept (in collaboration with UoG, UoW in UK)
- Develop a culturally-acceptable and affordable food product
 - designed for specific target populations and their nutritional needs
 - based on staples used in the household

METHODS

- Product formulation criteria
- Theoretical formulation
- Preparation of ingredients (roasting and drying)
- Chemical analyses
- Optimisation
- Shelf life studies
- Sensory acceptability
- Recipe development
- Intervention study – impact on nutritional status
- Training of caregivers combined with NEP

EXAMPLE OF A FMM

DESCRIPTION	Wht	Energy	Prot	COH	Fat	Fibre	Ca	Fe	Zn
	g	kCal	g	g	g	g	(mg)	(mg)	(mg)
RDA		2250	35	60	15	25.5	800	10	8.2
%RDA		18.0	62.0	80.0	40.0		45.5	58.9	28.1
% Total Energy		100.0	20.0	45.0	35.0				

Multimix 3

Sorghum-whole grain	39	139.8	4.3	27.9	1.2	3.50	10.1	4.3	*
Soyabeans-dried	25	103.5	8.5	7.3	4.5	1.20	46.3	1.5	1.2
Milk, non-fat, Vit A	25	88.8	8.8	13	0.2	0.0	307.8	0.08	1.1
Carrot,dried	5	18.2	0.4	4	0.1	1.20	10.60	0.2	0.08
Sunflower oil	6	54	0	0	6	0.0	0	0.001	0
Total	100	404.3	21	52.2	12	5.90	374.7	6.09	2.38

SNACK FOOD DEVELOPMENT IN PROCESS

- HIV/AIDS infected children
- Primary school children
- 2-5 year olds
- Elderly
- Pregnant women



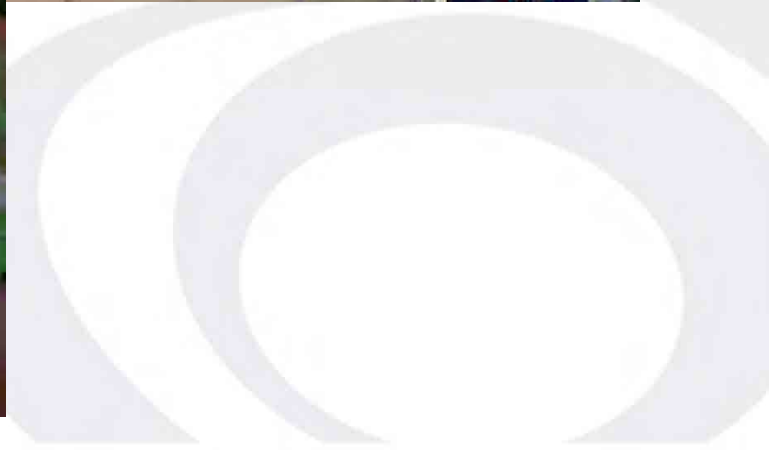
OTHER PRODUCTS cont

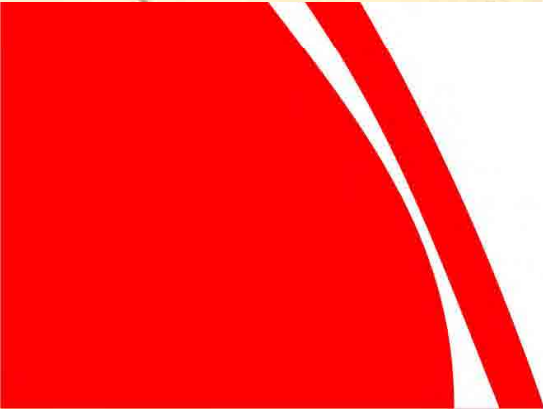
- Multi-disciplinary
- Engineering
- Graphic design
- Marketing



SCHOOL FEEDING PROJECT 1















SCHOOL FEEDING PROJECT 2

- **Orange Farms**
- **Collaboration with Joint Aid Management (NGO)**
- **CSB – first used for school feeding in SA (N=8000)**
- **Impact measurements (ISL)**





THE FUTURE & SOYA AT ISL

- Agricultural projects (home and school gardens)
- Product development
- School feeding projects
- HIV/AIDS

CONCLUSIONS

University and Industry collaborations:

1. Use the expertise at Universities for:
 - Development of products
 - Analyses of products
 - Impact development studies
2. Assist by funding projects



Thank you!

