



# ISIbalo Young Statisticians Programme: Focus on Research

**2016 – 2017**



**17 February 2016**

- **Why an ISIbalo Young Statisticians Programme**
- **Role of Young Statisticians in African Statistical Development Agenda**
- **About the 28<sup>th</sup> International Population Conference, Oct 2017**
- **Focus on Research for Young Statisticians – Participating in IUSSP**
  - What is Research?
  - Why Research?
  - How do I select a topic?
  - How do I develop a concept?
  - How do I write a research proposal?
  - Research, conferences, postgraduate studies ... what is the link?
- **PASA 2016 (SA); SASA 2016 (SA); ISI Congress 2017 (Marrakech); IUSSP 2017 (Cape Town)**
- **Timelines**

# About ISIbalo Young Statisticians Programme & African Statistical Development



- **Birthed in 2008 ahead of 57<sup>th</sup> Session of International Statistics Institute (ISI) to be held in SA in 2009;**
- **Its aim was to develop, train and mentor young statisticians in statistical development, research and leadership with the help of a multi-disciplinary national and continental-wide team of experts whose sole focus is to groom the next generation of statistical leaders**





Statistics



### Vision

Preferred supplier of  
quality statistics

### Mission

Produce timely and accurate  
information to inform users on  
the economy and  
the application of  
sound practices

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## Why ISIbalo Young Statisticians

**(a)**

**The renewed demand for better statistics, now termed an emerging data revolution, which places renewed pressure on the statistical community for better data, more innovative statistical research to better inform development interventions;**

**(b)**

**That as a number of related disciplines explore the need to turn research into action towards developing policy programmes and interventions, within the framework of the current African legacy of promoting and strengthening statistical capacity in the African continent, space needs to be provided for a number of scholarly and scientific research activities to promote broader African and South African participation;**

**(c)**

**The poor linkages between official statistical production processes and relevant policy interventions and frameworks;**

**(d)**

**The demographic profile of Africa's statistical community is dominated by older predominantly men. Little room has been made for the intellectual participation of young statisticians. No clearly defined plans exist to hand the baton of leadership over to young statisticians as the custodians of information and demand needed for Africa's development agenda.**





The ASED's 56th  
Symposium returns  
to Expo Town,  
South Africa

# Why the 57th ISI Session Counts

## 1997 to 2058

*The 61 year Journey in  
African Statistical Development*

## Identified Work Streams for Young Statisticians

- 1. Maths & Geography Education**
- 2. Survey Methodology**
- 3. Social Statistics, Demography & Population Science**
- 4. Economic Statistics**
- 5. GIS & Geography**
- 6. Official Statistics & Strategy**
- 7. Data Dissemination for Better Development Outcomes**

# 1<sup>st</sup> ISibalo Conference of African Young Statisticians 2008





# ISIbalo Conferences of African Young Statisticians (ICAYS)

**Increase in participation of East & West Africans, esp postgrad students**

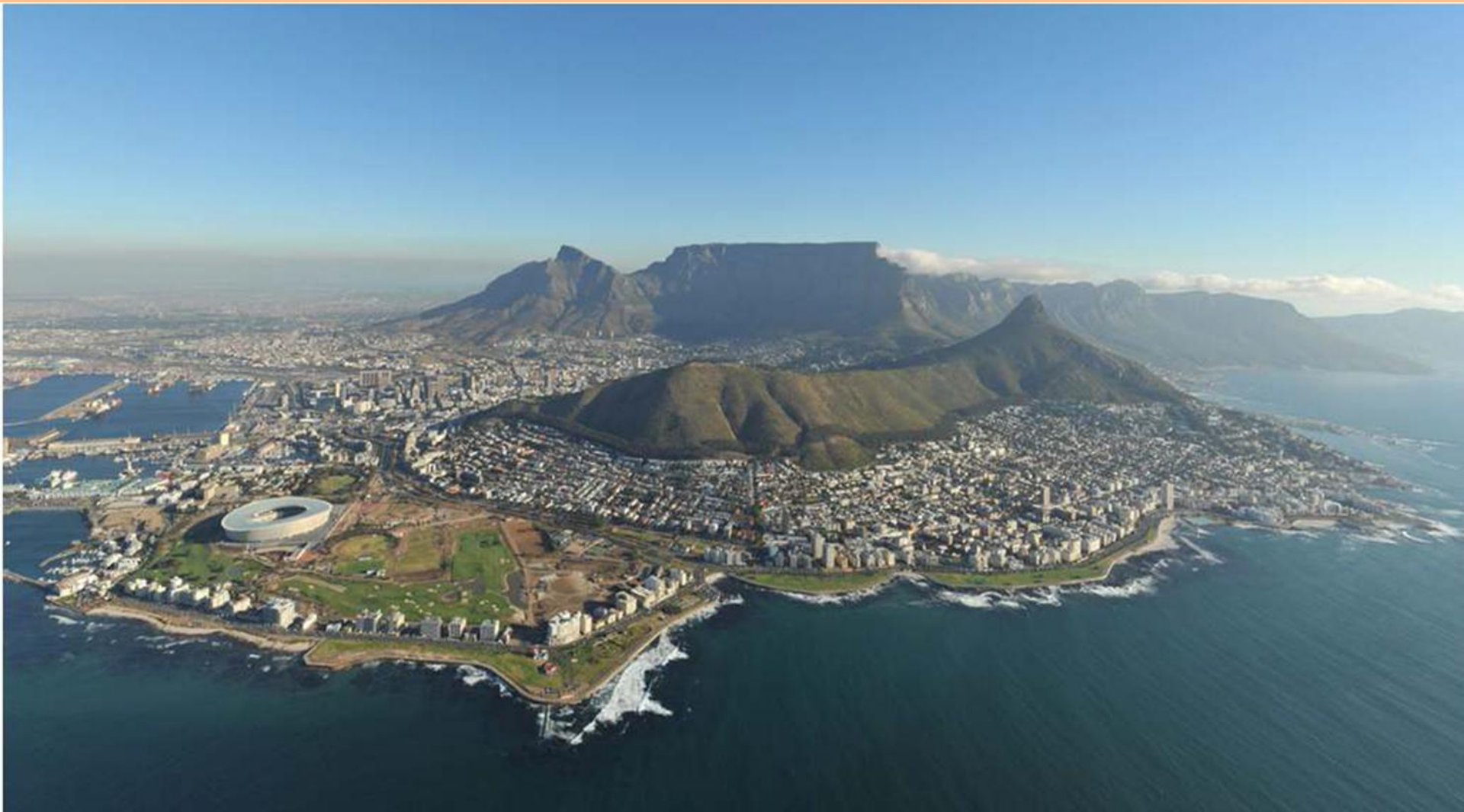


**Decrease in participation of South Africans esp in official statistics**

# ISIbalo Young Statisticians & the IUSSP's 28<sup>th</sup> International Population Conference



The 28th International Population Conference of the IUSSP  
(International Union on the Scientific Study of Population)  
Cape Town, South Africa  
29 Oct – 4 Nov 2017





# What is Research?



### **Research is:**

- ✓ **the systematic investigation into and study of materials, sources, etc, in order to establish facts and reach new conclusions.**
- ✓ **an endeavour to discover new or collate old facts by the scientific study of a subject or by a course of critical investigation.**

**[Oxford Concise Dictionary]**

# Why must we do Research?





**“ THIS IS  
INFORMATION  
COLLECTED  
THAT WINDS UP  
GOING INTO A BLACK  
HOLE, AS FAR AS I'M  
CONCERNED.”**

—DAVIS NELSEN, CEO OF NELSEN STEEL COMPANY



# How do I Select a Topic?

**Census**  
**2011**





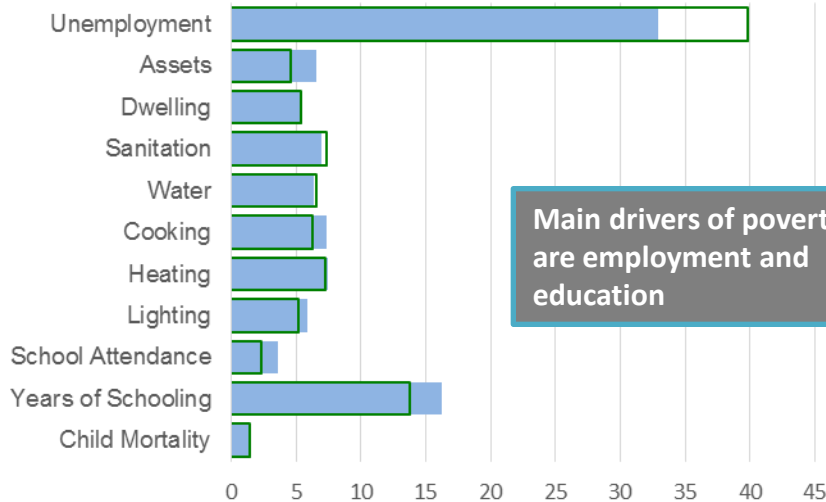
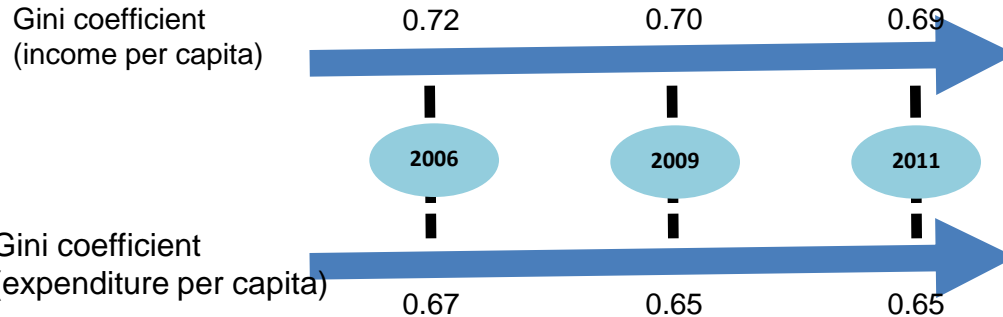
## What must Guide Me?

- 1. Interest in the topic**
- 2. Golden Rule 1: Do not choose an unfamiliar topic!!**
- 3. Golden Rule 2: Avoid over-researched topics!!  
(teenage pregnancy; causes of migration ...)**
- 4. Remembering that your completed work that will  
always be your crowning glory**

## Points for Consideration

- 1. Talk to others: what sparks an interest?**
- 2. Look at other writing: skim through other research titles in your field in last 5 years, read some abstracts – may give you suggestions**
- 3. Think about your own interests – is there an element that could be developed into research?**
- 4. Is there something you are skeptical about? A pattern, trend, gap?**
- 5. Consider theories and methodologies used: do they maximize how we do what we do or are the gaps emerging?**
- 6. Why? Where? How?**

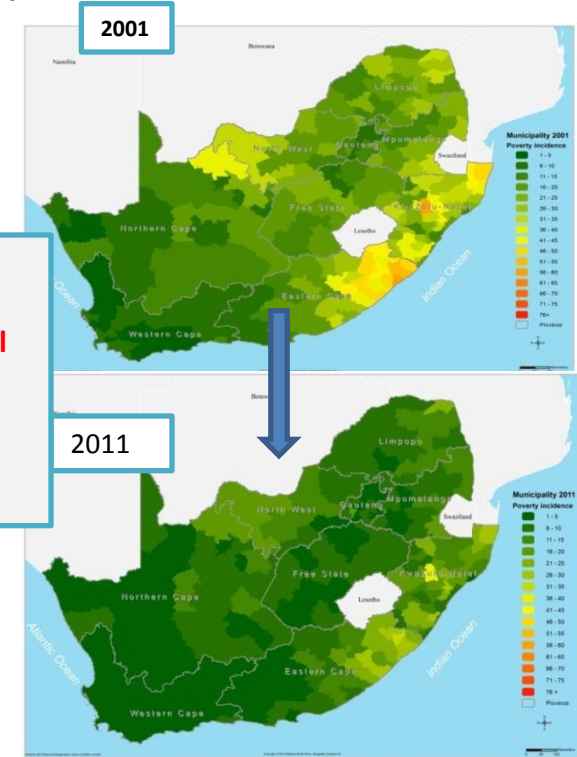
## Inequality has remained high between 2006 and 2011



Main drivers of poverty are employment and education

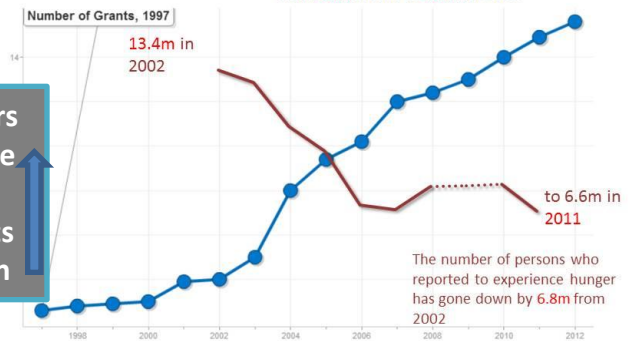
## Multidimensional poverty between 2001 and 2011

Decline in multi-dimensional poverty between 2001 and 2011



## Social Grant and Self Declared Hunger

Social Grant beneficiaries have increased from 2.6m in 1997 to 16.6m in 2012



Contributing factors towards the decline in poverty are mainly social grants and income growth

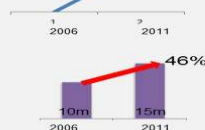
### Key Driving Forces

#### Income growth

- 16.7% real increase between 2006 and 2011
- Middle quintiles grew by 34.5%

#### Expansion of social grants

Number of grant recipients increased by 46% from 2006 to 2011, most notably the Child Support Grant



#### Expansion of credit

- Unsecured lending has doubled since 2009
- Also presents risk going forward

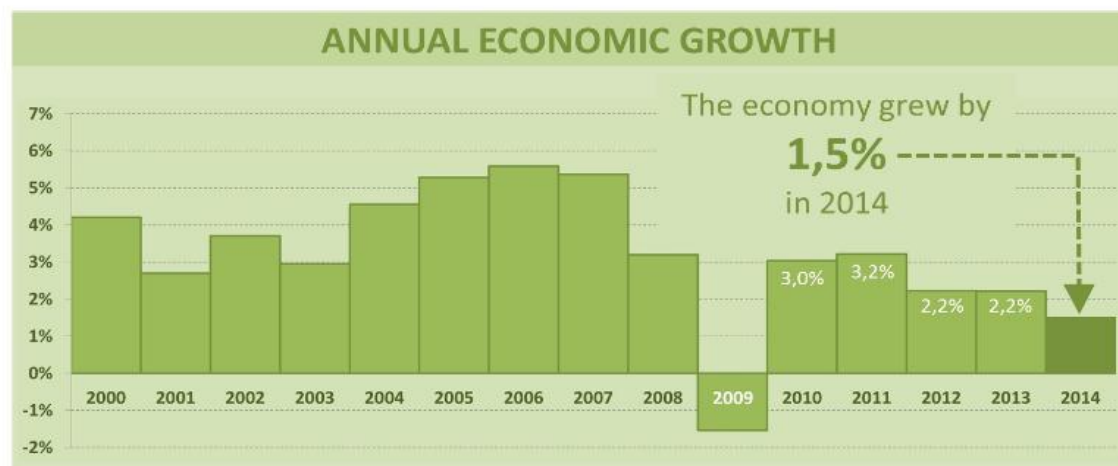


\* GHS 2009 did not ask about experienced hunger



# Measuring the economy

## How did South Africa's economy perform in 2014?\*



### PRIMARY SECTOR

Contributes  
**11%**  
to SA economy

**AGRICULTURE**  
Growth  
**↑5,6%**

**MINING**  
Growth  
**↓1,6%**

But sharp rebound  
in the 4<sup>th</sup> quarter  
with growth of  
**↑15,2%**

### SECONDARY SECTOR

#### MANUFACTURING

Growth  
**↔0%**

Contributes  
**21%**  
to SA economy



#### ELECTRICITY

Growth  
**↓0,9%**



#### CONSTRUCTION

Growth  
**↑2,9%**



### TERTIARY SECTOR

Contributes  
**68%**  
to SA economy



#### TRADE



Growth  
**↑1,3%**

#### GOVERNMENT



Growth  
**↑3,0%**

#### TRANSPORT

Growth  
**↑2,3%**



#### FINANCE



Growth  
**↑2,2%**

#### PERSONAL SERVICES

Growth  
**↑1,4%**



\* Preliminary results Source: Gross Domestic Product, 4<sup>th</sup> quarter 2014 <http://www.statssa.gov.za>

# How do I Develop a Concept?



## Steps in defining research problems

- 1. Identify a broad topic**
- 2. Identify a narrow topic within the broad topic**
- 3. Raise questions**
- 4. Formulate objectives**

**Use action-oriented words:**

- To demonstrate;**
- To evaluate;**
- To measure...**



## Identifying Broad Topics (Conference Themes)

### Think of the BIG PICTURE

- What is the problem you are trying to solve?
- Think of something you like to learn more about
- Consult text books, journal or your supervisor/mentor

### Pick one based on:

- Interest and relevance
- Magnitude of work involved
- Level of expertise

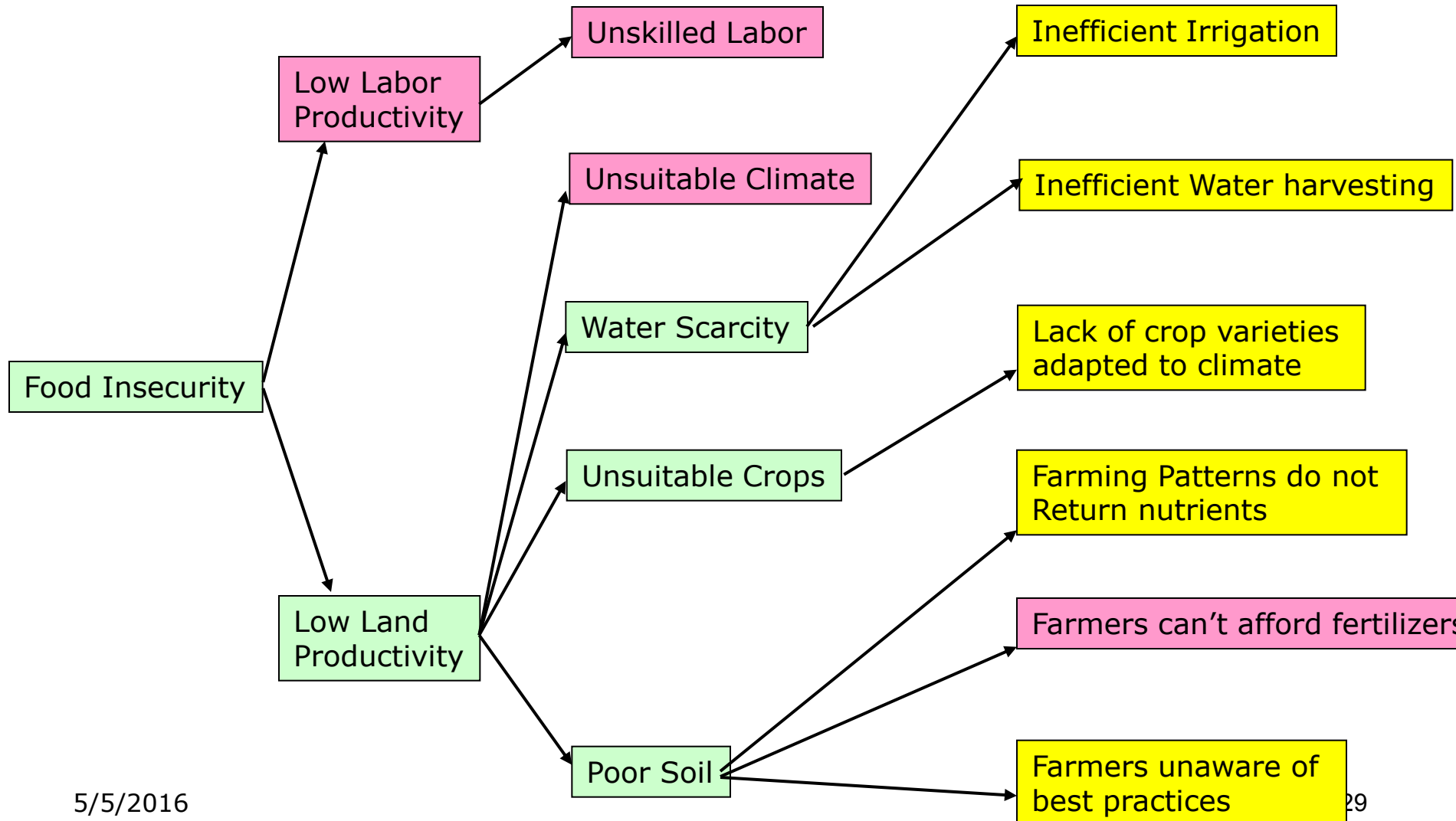
## From Broad Topic to Narrow Topic

### Examples of a narrow topic:

- **The Prevalence of Tuberculosis in the Gauteng: Causes of Death in SA (2003 – 2013)**
- **Maize production and food security: Findings of the Agricultural Census SA**
- **An Ageing Population? A Comparative analysis by Racial Groups of Ageing in South Africa**
- **Mapping Unemployment in the Eastern Cape**
- **Patterns of Infant & Child Mortality in SA**

**When selecting a narrow topic think how it can contribute towards solving the BIG PROBLEM!**

# Problem Tree – Keep asking Why?





# How do I Write my Concept Note?



## Writing your Concept Note

- Step 1: Identifying the Problem**
- Step 2: Comment on common themes, anomalies, gaps or trends in the Literature**
- Step 3: Clarify the Problem**
- Step 4: Clearly define Terms and concepts**
- Step 5: Define the Population**
- Step 6: Develop the Instrumentation plan**
- Step 7: Identifying suitable/Collection of Data**
- Step 8: State how you will analyse of the data**

# Linking Research, Post-Grad Studies, Conferences & Journal Articles





## Making the Links



# Upcoming Conferences



- **5<sup>th</sup> ISIbalo Conference of African Young Statisticians (Pretoria, June 2016)**
- **Population Association of SA (Durban, August 2016)**
- **61<sup>st</sup> World Congress on Statistics (Marrakech, July 2017)**
- **28<sup>th</sup> International Population Conference (Cape Town, October 2017)**



# Timelines



## Timelines for SA Young Statisticians (Pre-Conference Phase)

SELECTION PROCESS	TIMELINE
1 <sup>st</sup> call for research proposals	30 January 2016
Deadline for submission of research concept note for SA	04 March 2016
Review of concept notes by selection committee	11 March 2016
Applicants informed status of their submission	18 March 2016
1 <sup>st</sup> Workshop for SA on Developing Research Proposals (shortlisted candidates)	Tuesday 5 April 2016
Deadline for submission of research proposal (Draft 1)	29 April 2016
2 <sup>nd</sup> Workshop for SA on Research Proposals	Friday 6 May 2016
Ongoing Bilateral Consultation on Research Proposals	7 May – 8 June 2016
5 <sup>th</sup> ISibalo Conference of African Young Statisticians	13-17 June 2016



**Thank You!!!**

