FOOD SECURITY AS A MATTER OF SUSTAINABILITY

University Aliance for Sustainability

Summer symposium

Freie Universitat Berlin

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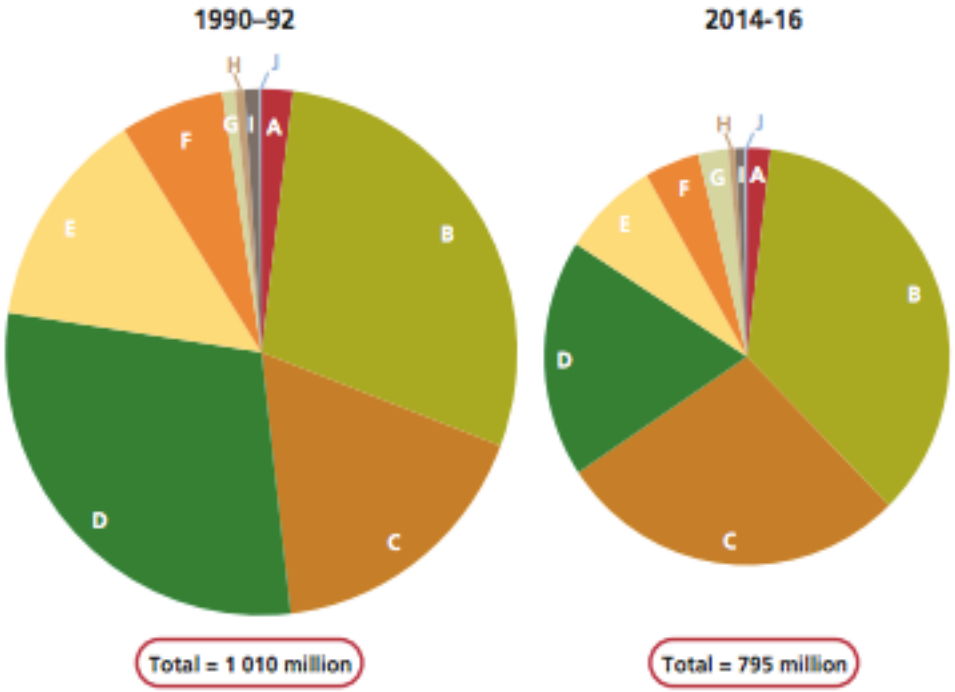
FOOD SECURITY & SUSTAINABILITY

- Food is basic need for all
- Food insecurity/hunger trigger extreme behaviour
- Sustainability is seldom part of the psyche of food insecurity individuals or society as whole
- Societal security and sustainability is threatened by food insecurity
- SDG – poverty and food security
- Hungry man is an angry man

REALITY ABOUT FOOD INSECURITY (FAO, 2016)



	Number (millions)		Regional share (%)	
	1990–92	2014–16	1990–92	2014–16
A Developed regions	20	15	2.0	1.8
B Southern Asia	291	281	28.8	35.4
C Sub-Saharan Africa	176	220	17.4	27.7
D Eastern Asia	295	145	29.2	18.3
E South-Eastern Asia	138	61	13.6	7.6
F Latin America and the Caribbean	66	34	6.5	4.3
G Western Asia	8	19	0.8	2.4
H Northern Africa	6	4	0.6	0.5
I Caucasus and Central Asia	10	6	0.9	0.7
J Oceania	1	1	0.1	0.2
Total	1 011	795	100	100

Leading discussions about sustainability originates from developed countries - A

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THE REALITY…..

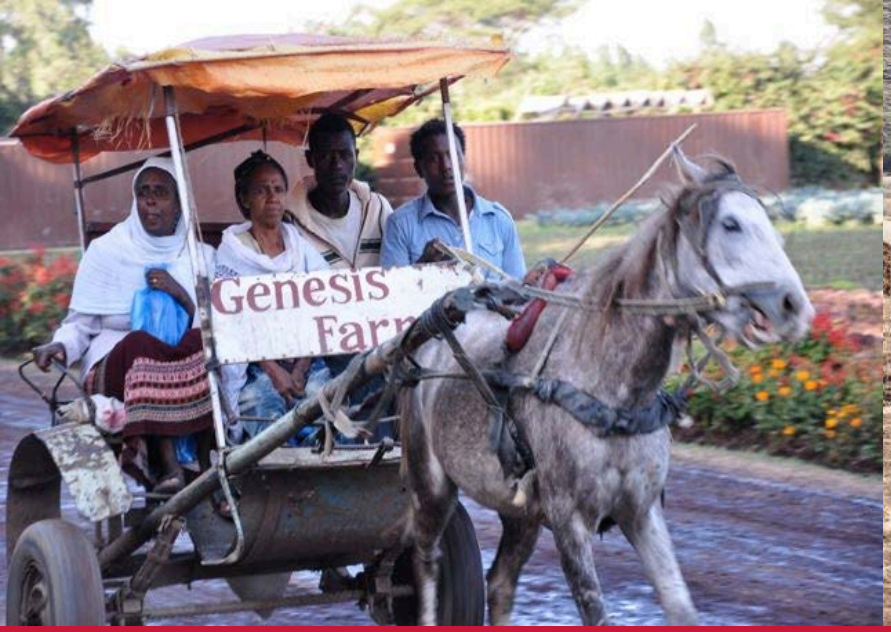
- Basic needs of people is food
- Food insecurity seldom allows rational thinking about future challenges – the next meal is the most important
- Most food insecure people depend directly on natural resources and paradox is that these resources represent the essence of sustainability
  - Deforestation as result of charcoal burning
  - Energy generation (fires, nuclear, coal)
  - Over grazing
  - Land degradation

FOOD INSECURITY AS A RESULT OF…

- Low production levels because of
  - Climate extremes
  - Conflict
  - Lack of knowledge
  - Lack of resources
  - Cultural beliefs
- Unaffordability
- Poor distribution
- Imperfect markets
- Waste

CASE STUDY:

- Karamoja – Uganda
  - Most under-developed region in world
  - Highly food insecure
  - Food aid
- SADC
  - Most severe drought in 35 years
  - Cereal production severely affected
  - SA as food basket for SADC
  - Drought in SADC
  - Drought impact



MODERN TECHNOLOGY NOT EVERYWHERE IMPLEMENTED

KARAMOJA

- Charcoal burning
- Sand mining
- Gold mining
- Exploitation of natural resources

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CAUSES OF FOOD INSECURITY

CAUSES OF FOOD INSECURITY

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QUESTION WE LIKE TO AVOID…

- Can we expect from a hungry person to really argue the case for sustainability?

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Country	Current Cereal Deficit (2015/16)[1]	Food Price Inflation[2]	Current Needs (Until March 2016)		
			Total Rural Population	Affected Population	% of Rural Population
Angola	52 %	13 %	12,767,654	1,253,048	9.8%
Botswana	88 %	1 %	875,105	49,000	5.6%
Congo	n/a	2 %	n/a	n/a	n/a
DR Congo	45 %	2 %	40,970,888	4,456,106	11.0%
Lesotho	57 %	(4) %	1,541,072	463,936	30.1%
Madagascar	n/a	7 %	15,727,662	1,893,398	12.0%
Malawi	14 %	28 %	14,492,248	2,865,602	20.0%
Mozambique	30 %	2 %	18,384,814	176,139	1.0%
Namibia	68 %	7 %	1,204,453	578,480	48%
South Africa[3]	(2) %	5 %	n/a	n/a	n/a
Swaziland[4]	61 %	4 %	858,347	200,897	23.4%
Tanzania	(17) %	11 %	35,762,641	424,136	1.2%
Zambia	(41) %	23 %	9,168,601	798,948	8.7%
Zimbabwe	52 %	(4) %	9,534,266	2,829,159	30%
Regional		***9 %***	***161,287,751***	***15,988,849***	***10.0%***

CEREAL IN SADC 2015/2016

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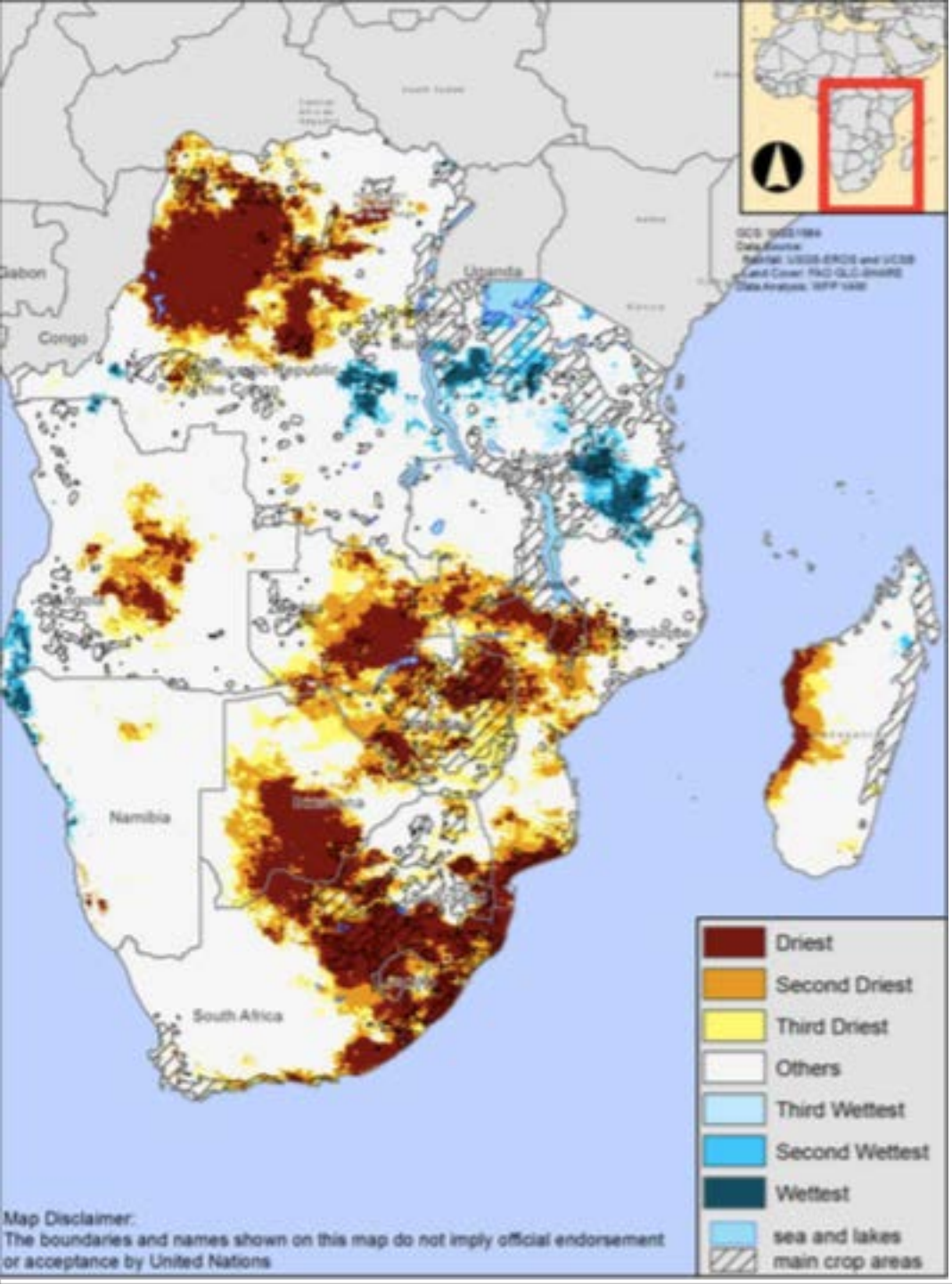
SADC 2015/2016

- La Ninja causes most severe drought in 35 years
- Whole of SADC is affected
- Grain basket affected during planting time and full growing season
- Agriculture is severely affected (whole value chain)
  - Input suppliers
  - Machinary
  - Labour
  - Consumers – high food prices
  - Farmers
- Many towns without drinking water

DROUGHT IN SADC COMPARED TO PAST 35 YEARS



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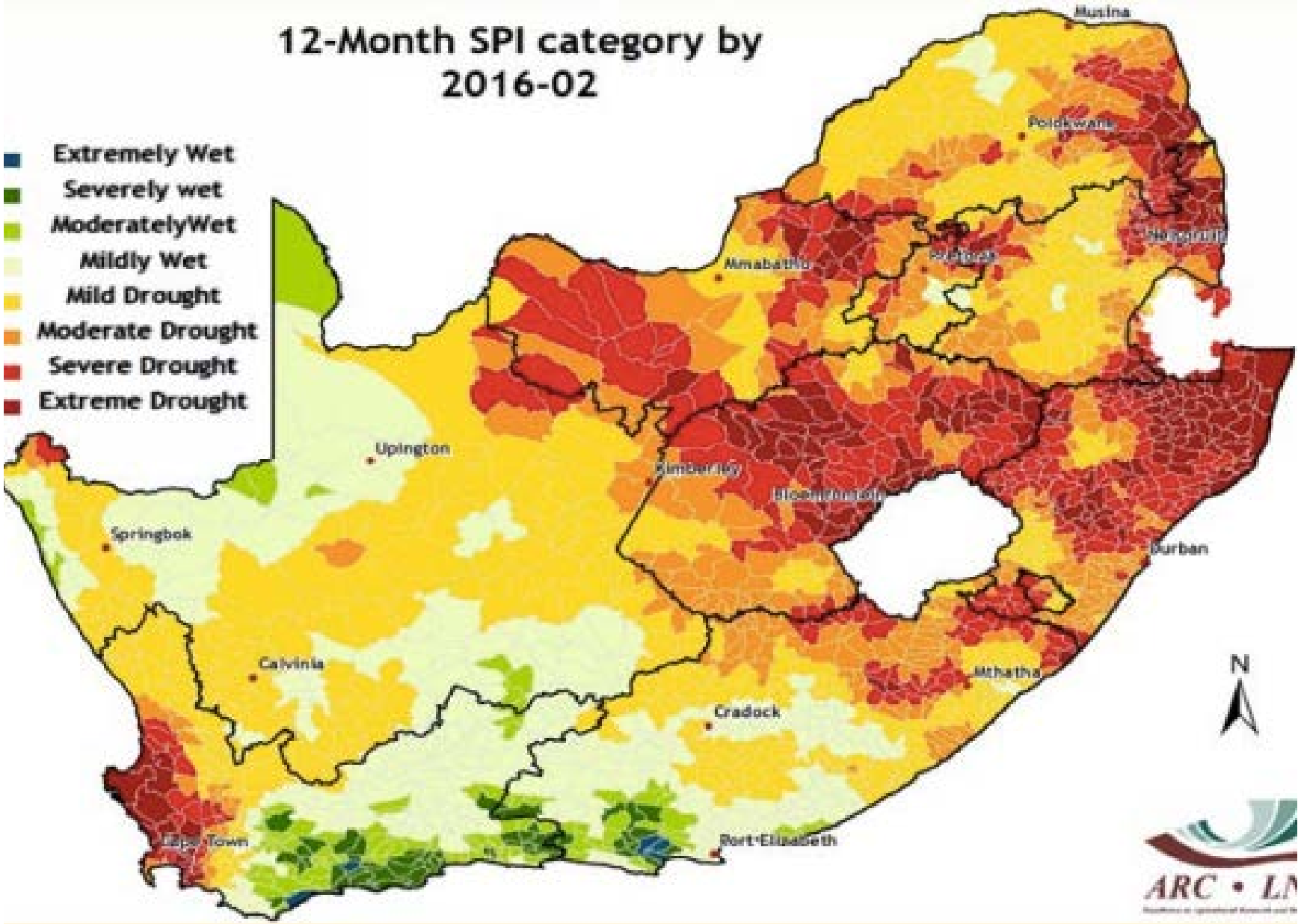

2015/2016 DROUGHT IMPACT ON FOOD SECURITY

- Crop production in SA severely affected – >14 million ton maize to <7 million ton
- Food prices already increased with 20%
- Staple food will increase more – maize R2300 to R4610 (May 2016 SAFEX); potatoes R40 to R100
- Infrastructure not adequate for import and distribution
- Not matter of availability; it is about affordability for the poor majority:
  - Hunger and health related consequences
  - Civil strife (poor service delivery, corruption, poor governance, #feesmustfall, #zumamustfall, high unemployment)
- Exploitation of natural resources – overgrazing, land degradation and expected erosion with floods (2017)

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CURRENT REALITIES IN SA

- Conflict between agriculture, industry, mining, and water for human consumption will continue and increase
- Foo production in SA is under pressure and they will adapt and seek solutions with competitive advantage
- Policy of food security vs food self sufficiency
  - SA farmers will move to areas with competitive advantage
  - More cereal production in Botswana, Zambia, Angola, Mozambique, Zimbabwe, Malawi and further north.
  - Favorable climate and soil the main pull factors with a number of push factor that hasten the process
- Food security for the poor remains the challenge

- We need to do things differently

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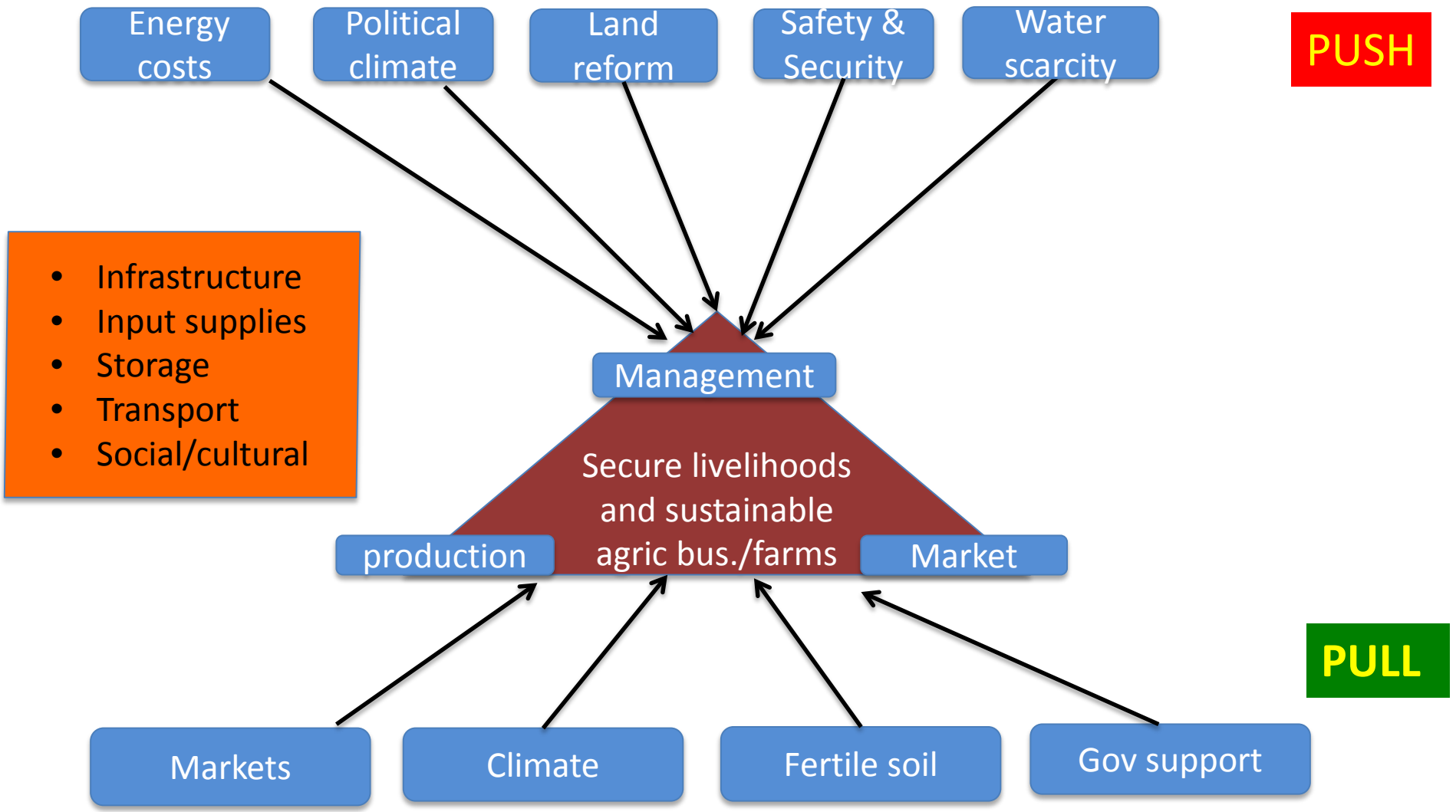
THE AGRICULTURAL REALITY IN SA



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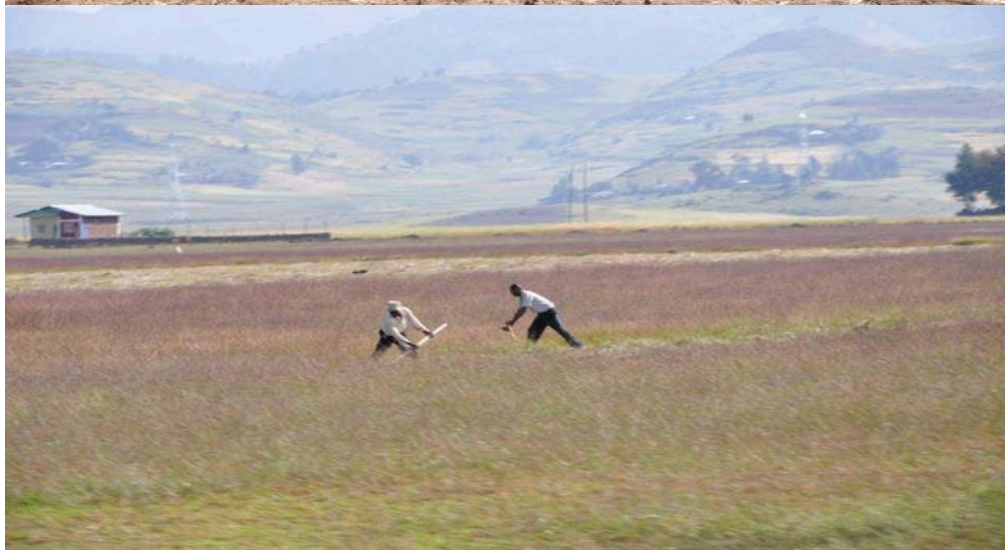
TRANSITION TO A GREEN ECONOMY (UNW-DPAC, 2011)

- Economic instruments eg.index insurance
- Green jobs
- Cost recovery and financing
- Investments in biodiversity
- New Technology
- Water planning
- Governance
- Training and education



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TRANSFORMATION TOWARDS A GREEN ECONOMY IN AFRICA

- Different opinions – Same arguments as with sustainable development years ago
  - First opinion are those who support international agreements and trend of green economies.
    - Agree to principles of environmental innovation
    - Agree to international agreements
  - Opposing opinion are those who argue that Africa first need to develop and lift its people out of poverty with current *"cheaper"* but *"dirty"* technology.
    - Europe and developed world got rich from dirty technology
    - They continue to pollute; Why should Africa pay for their pollution?
- Sustainability vs food security (short term argument)

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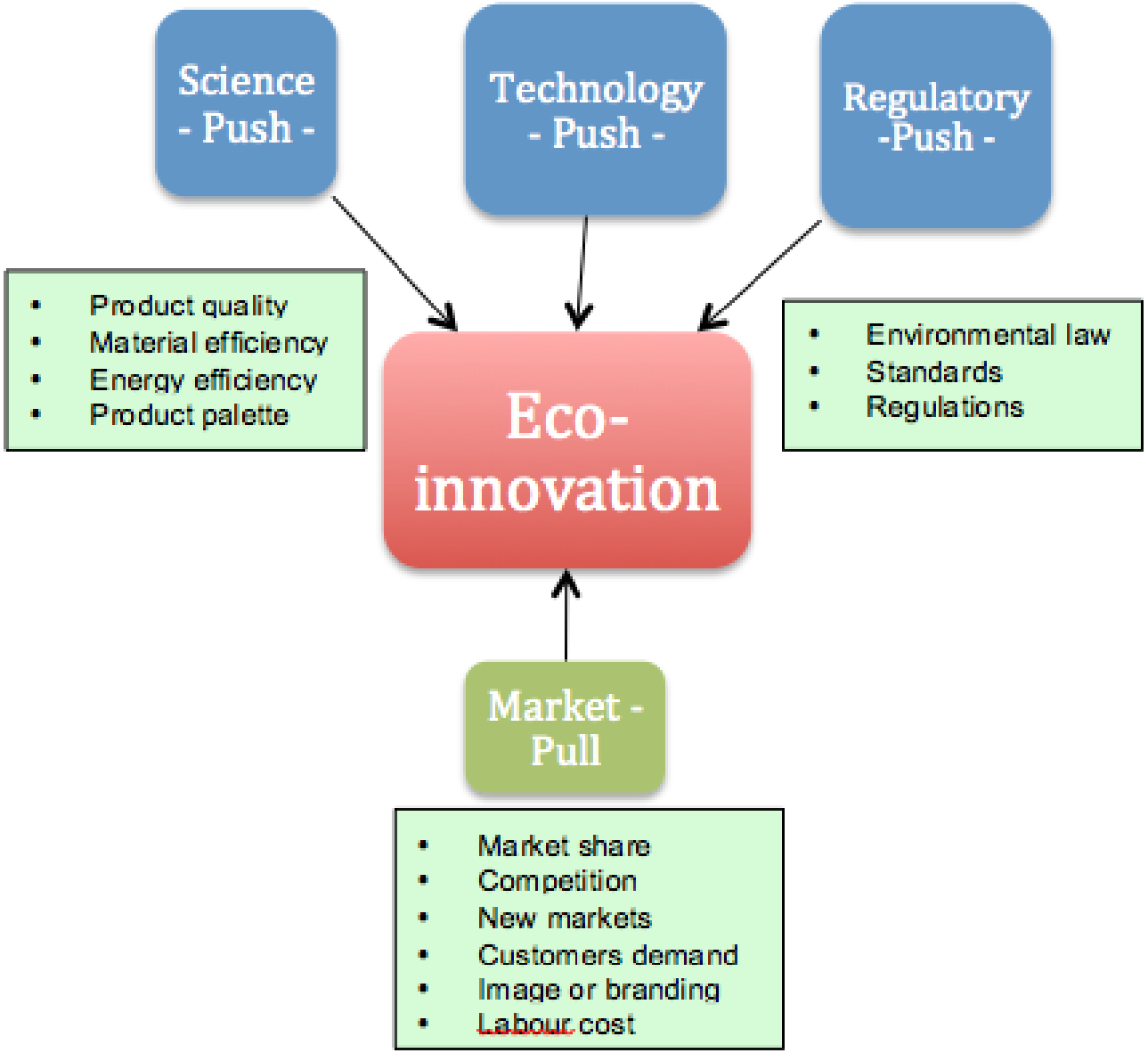
MATRIX OF DRIVERS FOR ENVIRONMENTAL INNOVATION AND GREEN ECONOMY (DOSI, 1982; 1988; ROMAIN, 2012)



Universities have important role to play

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WE ACKNOWLEDGE……

- Green economy is is inextricably linked to economic growth and global sustainable development
- Current economic models fall short to expectations (Socialism vs capitalism)
- Rio+ 20 *"The future we want".* Green economy is still a debatable issue – same as sustainable development
- Green economy just one way to achieve sustainable development
- Many believe that green economy is key to sustainable development and uplifting people out of poverty while sustaining the environment – but….convince the hungry person…..
- Call for green economy is costly in short run and will involve new systems, new way of doing things
- Institutions of higher learning and research institutions will play an important role

WHAT CAN (SHOULD) WE DO

- Actively research new ways of doing things including new technology, new systems, inc. traditional knowledge, etc.
- Action research - implementing while learning
- Inter-, intra- disciplinary thinking and research
- Listen to the needs in society – our clients
- Consider the impact on the environment (sustainability)
- Influence policymakers
- Advocacy for a green economy and environmental innovation,
- Create global linkages between researchers and institutions – The implementation of a green economy in developing countries can have a positive impact on the developing world – In a sense, our challenges are also challenges of developed world – we need to work together (north/south)

FIRSTLY…. AS A CONTINENT, WE NEED TO GET THE BASICS RIGHT

Thank You

Dankie

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