



**AGRICULTURAL SUPPORT  
SYSTEMS:  
Empowerment of Black Farmers in  
the South African  
Potato industry**

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Presentation to Research Symposium  
Pretoria

13 June 2018



# Presentation Outline

1. Study background
2. Defining empowerment
3. Operationalising
  - SA context
  - International context
4. Research study & findings
5. Nexus relationship to land reform
6. Lessons learnt



# BACKGROUND Empowerment through FSP (Farmer Support Programmes)

- FSP is a dimension contributing to farmer empowerment
- Has been applied (DBSA) and continues to be applied by government to support farmer development (DAFF)



# Farmer Support FSP's context to empowerment study

- **DBSA FSP:** developmental approach targeting small scale farmers
- Objective to spread effects of agriculture projects to farmers
- Providing complementary coordinated and timely services
- Potential to increase utilisation efficiency of resources and productivity
- Farmer settlement strategy 1987 to 1993

Singini & van Rooyen, 1995.

# FSP's (cont.)

- **DAFF** and Provincial Departments of **Agriculture FSP's** (Mr. Msomi)
- E.g. W. Cape FSP
  - Broad developmental agenda
  - Design & implementation of SHF support
  - Enhance land reform programmes: facilitation of capacity & skills development and resources to achieve equitable and diverse sector
  - Impact measurement, partnership leverage
  - Extension support, address food security

# Problem statement

- Potato industry undergoing transformational challenges evidenced by low numbers of black potato farmers visible in industry and known to commodity organisation PSA
- PSA serves interests of only its members reflecting few black farmers
- Little empirical evidence testing the state of empowerment in SA potato industry
- Seed potato industry supplies growing volumes of seed potatoes to black farmers  
(Wesgrow, 2016)

# Empowerment

- In order to assess empowerment status need to have clear definition
- Described as a latent, complex and multi-dimensional phenomenon occurring over many aspects of people's lives (Ibrahim and Alkire, 2007; Mahmut *et al.*, 2012).
- Is centred on transformation of power relations
- Is difficult to observe and measure (*What gets measured gets done*)
- Characterised by definitional disparities

# Definitions

- Multiple and context-specific definitions (Ibrahim and Alkire, 2007) including:
- An emancipatory process where the disempowered and disadvantaged are enabled and empowered to exercise their rights and agency in decision-making to gain access to resources and capabilities, therefore enabling them to actively participate in decisions to positively enhance their livelihoods Lutrell *et al.*, 2009

# Definitions (cont.)

- Empowerment is the expansion of assets and capabilities of individuals to participate in, negotiate with, influence, control and hold accountable institutions that affect their lives

Narayan, 2002

- In an agricultural context Alkire *et al.*, (2013) describe empowerment as *one's ability to make decisions on matters related to agriculture as well as on one's access to the material & social resources needed to carry out those decisions*

# Operationalising empowerment: SA context

- Operationalised through the application of the AgriBEE sector codes, whose key objective is to ensure increased access and equitable participation in all levels of the agriculture value chain
  - Focus of codes primarily targets agribusinesses, commodity organisations, employees, entrepreneurs
  - 2008: 7 pillars and 2017: 5 pillars
  - Farmer-centric empowerment not clearly defined

# SA: Operationalising (cont.)

Period	Transformation Guideline
1998	No specific transformation allocation
2001	Minimum of 10 % statutory levy
2005	Approximately 20 % statutory levy
2009	Minimum of 20 % statutory levy
2015	Minimum of 20 % statutory levy across 7 pillars
2017	Minimum of 20 % statutory levy across 5 pillars

# SA: Operationalising (cont.)

2008 Transformation Pillars (7)	2017 Transformation Pillars (5)
Ownership and land ownership	<b>Ownership</b>
Management control	<b>Management control</b>
Employment equity	
Skills development	<b>Skills development</b>
Preferential procurement	<b>Enterprise development</b>
Enterprise development	
Socio-economic development	<b>Socio-economic development</b>

# Transformation Guidelines NAMC

Element	Percentage
Enterprise and Supplier Development	60 %
Skills Development	20 %
Management Control Ownership Socio-Economic Development	20 %

# Limitations

- Potatoes commodity organisation services needs of its members, thus excluding non-members (PSA, 2015)
- Contrary to spirit of AgriBEE sector codes, MAP Act of 1996, SA constitution, Ntsebesa *et al.*, 2009 . Excludes majority of black potato farmers
- Data are aggregated
- Measurement variables not specific and telling on individual farmers and their empowerment

# Operationalising empowerment: global context

- Transformation through empowering individuals from lower position to higher one resulting in significant changes to lives and livelihoods targeting 3 aspects
  - **Means** (enabling factors including rights, resources, capabilities, opportunities)
  - **Processes** (decision-making actions including internal empowerment capabilities)
  - **Ends** (greater control of livelihood assets)

Bartlett, 2004

# Operationalising (cont.)

- Longwe, 1991 (degrees of empowerment)
- Sen, 1999 (interplay between agency and capability: existence of choice, use of choice, achievement of choice)
- Narayan, 2002 (opportunity structure / institutional climate, agency/ assets and capabilities leading to development outcomes)
- Gaventa, 2003 (power cube levels, spaces and forms of power)
- Alsop and Heinsohn, 2005 (agency, opportunity structure, empowerment outcomes)
- OPHI, USAID, IFPRI, 2012 WEAI addressing 5DE (Women's Empowerment in Agriculture addressing five domains of empowerment)

# WEAI and 5DE methodology

- The study applied the Women's Empowerment in Agriculture (WEAI) focusing on five domains of empowerment (5DE production, resources, income, leadership, time)
- Advantages over BEE methodology focused on single domain
  - Agriculture-specific tool, measurable, tracks progress over time, assesses empowerment state and prevailing barriers, enables targeted interventions and policies, disaggregates data (region, demographics, scale, etc.)
- A survey-based instrument which can be adapted and contextualised
- Enables targeted and needs-based farmer support to facilitate empowerment in agriculture

# Methods and procedures

- Cross-sectional and mixed methods research designs including qualitative and quantitative approaches conducted across 5 provinces Mpumalanga, KwaZulu Natal, Eastern Cape, Free State, Limpopo
- Areas defined as agriculturally significant StatsSA (2017) and key to addressing poverty alleviation through agricultural production DAFF(2016)
- Addressing research objectives
- Non-random sampling covering 132 respondents who planted disease-free certified seed potatoes over past 2 seasons individual households, co-operatives drawn from various data bases
- Varied locations within PSA defined production regions geographic and ephidatically diverse areas, multiple and heterogeneous locations

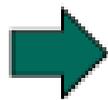
# Methods (cont.)

- Semi-structured questionnaire interrogating socio-economic, demographic, farming systems, and empowerment domain indicators
- Data cleaned, captured, coded, exported to Excel and STATA 14 for analysis
- Descriptive analysis, inferential analysis applied

# Summary of Methodology



Development of semi-structured questionnaire based on WEAI tool (Table 1)



Peer review, pre-testing and adaptation



Study Area:  
Mpumalanga, KwaZulu Natal,  
Eastern Cape, Free State  
and Limpopo provinces



Data collection:  
Purposively selected 132  
respondents



Data analysis:  
Excel and  
STATA

In addressing the single domain limitation of BEE, the WEAI presents advantages including the following:

- Specifically addresses empowerment in agriculture
- Measurable and can be tracked over time (*what gets measured gets done*)
- Can assess the state of empowerment and reveal barriers to empowerment
- Has the ability to identify and target policy, strategies and programme focus areas
- Presents a disaggregation of data (demographics, spatial, infrastructure, etc.) enhancing data analysis.

# Limitations

- Limited sample used (132)
- Time and resources
- Limited testing of full extent of WEAI methodology and its analysis

# Methods: WEAI and 5DE

Domain	Indicator
Production	<ul style="list-style-type: none"><li>• Input in productive decisions (autonomy in production)</li><li>• Potato yield per ha</li><li>• Land tenure institution</li></ul>
Resources	<ul style="list-style-type: none"><li>• Tractor access or ownership (asset)</li><li>• Information through extension</li><li>• Frequency of extension access per season</li></ul>
Income	<ul style="list-style-type: none"><li>• Attained income from agricultural production during previous season</li><li>• Control over income use</li></ul>
Leadership	<ul style="list-style-type: none"><li>• Leadership effectiveness</li><li>• Capacity to influence change</li></ul>
Time use	Indicator not explored as study focus not of a gender-specific nature

# Results Summary and Findings

Domain	Selected Indicators	Responses	MP	KZN	EC	FS	LP	Total
Production	Who makes decisions on input use?	Government or other Institution	0%	0%	0%	0%	32%	7%
		Outside household female	14%	13%	20%	0%	4%	12%
		Outside household male	39%	20%	31%	27%	7%	25%
		Household jointly	46%	67%	49%	73%	57%	56%
	Potato Yield per Hectare	0-4t/ha	32%	30%	31%	0%	21%	26%
		4-10t/ha	57%	50%	46%	0%	21%	48%
		10-20t/ha	11%	17%	17%	27%	25%	20%
		Over 20t/ha	0%	3%	6%	73%	32%	5%
		Not certain	17%	18%	10%	29%	0%	18%
	Land tenure	Private land-title deeds	2%	0%	0%	3%	0%	4%
Tribal land –PTO		71%	68%	80%	68%	82%	64%	
Private land lease		10%	14%	10%	0%	18%	14%	
Resources	Tractor Ownership	No	100%	83%	91%	45%	11%	70%
	Information Through Extension	Yes	0%	17%	9%	55%	89%	30%
		No	54%	50%	71%	18%	21%	48%
	Extension Frequency	Yes	46%	50%	29%	82%	79%	52%
Never		54%	50%	71%	18%	21%	48%	
Once a season		18%	33%	14%	9%	33%	23%	
Twice a season		29%	3%	12%	73%	46%	27%	
More than 2 times a season	0%	7%	3%	0%	0%	20%		

# Results Summary and Findings

Domain	Selected Indicators	Responses	MP	KZN	EC	FS	LP	Total
Income	Income	<R42000	69%	87%	38%	9%	50%	56%
		R42000-R100000	17%	3%	18%	36%	7%	14%
		R100001-R150000	10%	7%	21%	27%	4%	12%
		R150001-R200000	3%	0%	0%	0%	0%	1%
		Over R200000	0%	3%	24%	27%	39%	17%
	Who makes decisions on revenue use?	Family outside household	0%	0%	0%	0%	11%	2%
		Outside household female	14%	7%	26%	0%	0%	9%
Outside household male		39%	10%	20%	18%	11%	20%	
Within the household		46%	83%	54%	82%	79%	69%	
Leadership	Leadership effectiveness	Not effective Fairly	46%	13%	54%	54%	9%	32%
		Effective	18%	10%	9%	9%	9%	4%
		Very effective	36%	77%	37%	37%	82%	64%
		Yes but with great difficulty	0%	10%	6%	18%	0%	5%
	Capacity to influence change	Yes but with great difficulty	0%	30%	0%	9%	29%	14%
	Capacity to	Yes fairly easily	0%	23%	3%	45%	50%	20%
Capacity to	Yes very easily	100%	37%	91%	27%	21%	61%	

# Nexus relationship to land reform

- Conceptual model linking land tenure with agricultural sustainability and productivity
- Reference: Roth and Haase (1998)

# Lessons learnt

- Important to quantitatively measure empowerment
- Evaluate applying agriculture-specific tool
- Disaggregate data reflecting farmer heterogeneity as per DAFF; Pienaar (2013) typology
- Capture domain specific impact of interventions
- Track and evaluate domain-specific progress over time

# Challenges, solutions and lessons

- Survey too long (respondent fatigue)
- Apply shorter adapted version of WEAI  
(5DE: 10 indicators to 5DE 6 indicators)
- Cognitive challenges with autonomy module in particular
- Apply cognitive testing of challenging modules to enhance responses and data quality: adapt and contextualise

# Lessons (cont.)

- Engage in further quantitative research in empowerment in agriculture
- Enhance validation of farmer empowerment by commodities adding to current industry empowerment measures currently applied
- Add questions on StatsSA household surveys and census' related to farmer empowerment

# Lessons (cont.)

- Farmers were found to be **heterogeneous**
- Are **diverse**
- Farming systems are **dynamic** and constantly evolving
- Farming systems are **complex**
- Services need to consider these factors

# Certified Potato Seed





**Baba Khanyile**

Maswaimane

# Select challenges experienced



Marketing

Production



# Challenges



**Figure 1: Conceptual Model Linking Tenure Security with Agricultural Sustainability and Productivity**

