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Rethinking Agriculture Conference-Dialogue

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### The irrigation mystique

- NDP 1 million new jobs in agriculture; largely premised on expanding the area under irrigation
- Cousins "The evidence from Tugela Ferry and other irrigation schemes shows that where [small-scale farmers] have access to fertile soils, irrigation water and markets, small-scale farmers can be highly productive and earn reasonable returns" (2012)

#### **Caveat**

- While irrigated agriculture is more labourintensive than dryland, nature of commercial farming sector also makes a huge difference
  - During 1971-1993, significant increase in HA irrigated in commercial agriculture, but decline in jobs on irrigated farms due to 'technology effect' (Aliber and Siziba, 2015)
- Cousins' optimism probably more justified

# Thus the importance of smallholder irrigation schemes

"Smallholder irrigation schemes have the potential to make a significant local socio-economic impact by contributing to improved food security, poverty alleviation and increased employment.... Unfortunately, a large number of smallholder irrigation schemes have collapsed while the rest are suffering reduced efficiency due to various reasons. Due to the importance of these schemes, their effective revitalization is extremely important." (DAFF, 2016?)

#### DAFF *policy* is spot-on:

"Infrastructure-centred intervention alone, or as a dominant part of the intervention, is highly unlikely to succeed.... It is imperative that the multi-sectoral interests and dynamics are integrated into the planning of each revitalization project.... The main issue at stake is **how to change deeply-rooted agricultural development philosophies**, many which stick to modernist paradigms...." (DAFF, 2016?)

## But the 'expert system' maintains a toehold:

"Furthermore, plot sizes must be large enough to enable a farming family to make a living from farming, i.e. it must conform with the concept of 'economic units'." (DAFF, 2016?)

### Big constraint to revitalisation is cost

National (about 112 000 HA): R15 billion

 Eastern Cape (about 8 400 HA): R1.26 billion, of which:

Canals
Drainage
Dams
Irrigation systems
Fences, roads etc

Professional fees 321

Plus cost of new Mzimvubu dam: R12 billion (1700 HA?)

## Self-employment and employment on EC irrigation schemes – rough estimates

Approximate current:

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Self-employment9 000
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– Employment 4 000

- Total 13 000

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Possible (if full utilisation)

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Self-employment 19 000
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– Employment 10 000

- Total 29 000

## Self-employment and employment on EC irrigation schemes – punch line

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- Employment 4 000
- Total 13 000

#### Possible:

- Self-employment 19 000
- Employment 10 000
- Total 29 000

- Additional 'jobs':16 000
- Cost per 'job':

R80 000

To put into perspective, at present in EC there are about 600 000 subsistence HHs and 30 000 smallholder HHs

#### Themes and case studies

Food plots vs 'commercial' – Tyhefu

Revitalisation and partnerships – Tyhefu

New schemes – Mzimvubu

Non-schemes – Port St Johns

## Food plots vs 'commercial'

"Almost all the former homeland irrigation schemes had a 'food plot' section, which has been described as the 'social component' of the schemes. The food plots were the most successful components of these schemes.... The food plots were very important in terms of enhancing household and community level food security." (DAFF, 2011)

- Initially, distinction was between smaller vs larger plots, and/or between individual plots and 'commercial core' of project
- More recently, tendency to try to amalgamate plots into commercial ventures, eg with strategic partners

### Case study – Tyhefu

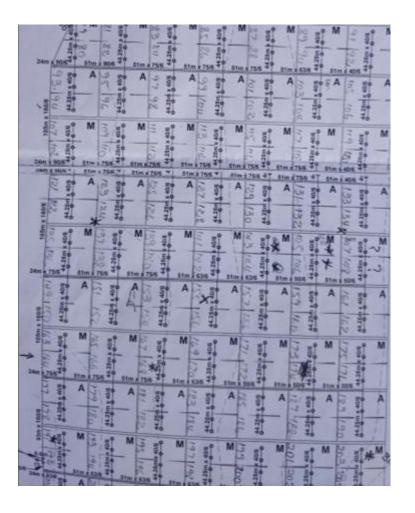
- Established in 1977 in 4 villages; although next to Great Fish River, draws water from Orange River
- Originally:
  - Commercial plots of 4 HA each
  - Food plots of 0.25 HA for those who lost land to the scheme
  - Food plots of 0.16 hectares 'leased' to others interested in farming
  - Three pieces of land totaling 183 hectares under the control of the Tribal Authority and operated by the Ciskei Agricultural Corporation ('commercial core')

- Closed down in 1997
- 'Re-vitalised' (partially) and re-opened in 2002
- Focus on Ndlambe (1 of 4 villages)
- Lots of problems, eg dispute between traditional leaders and the Project Steering Committee, lack of funding, etc.

### Tyhefu – Ndlambe portion









### Tyhefu – food plots

- In old days, sold surplus via the scheme EL, PE etc, but systems have collapsed; some local sales, but mainly own consumption
- 'Food plot' label is advantageous not obliged to pay for water
- Government supports with free inputs, but appears that most of this is embezzled by the coop that 'oversees' scheme
- Food plots are low priority
- But people get on with it; hire tractors or oxen, almost entirely family labour

### Revitalisation and partnerships

"Where, for some reason, the involvement of a strategic partner is considered, both the partner and the envisaged enterprise and technologies must be acceptable to and formally accepted by the farmers. The provincial department must also take the responsibility to ensure that the farmers are involved as decision-makers and that the strategic partner does not move into a position of decision-making monopoly. If the latter happens, the farmers become no more than 'glorified labourers' and have no control over the profitability of their farming enterprises." (DAFF, 2016)

# Tyhefu – commercial farming and partnerships

Post-1994, looking for the right partner and the right crop:

- IDC and Eastern Cape Development Corp funded feasibility studies for sugarbeet and cotton
- 2009 50/50 joint venture partnership established between Bonifruit (Pty) Ltd, and the Ndlambe Cooperative – pomengranates!
  - 180 HA, R30 million?
  - 15 permanent jobs
  - Rental income to Co-op

## Tyhefu

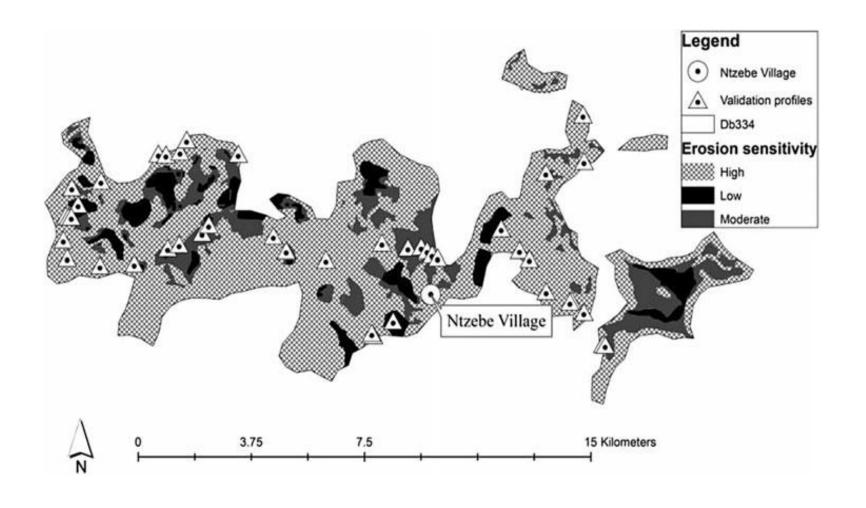


- What happened?
- Not clear
  - Planting was done
  - However, paralysed by conflict, and supposedly government failed to meet its commitments
  - Presently derelict
- A unique story? Maybe...
- But can also be problematic when it works
  - Tyhefu R300 000 to R800 000 per FTE
  - Qamata gov't support for large-scale lucerne;
     scarcely any employment at all

#### **New schemes**

#### Mzimvubu

- Mooted in 2013 SONA
- Approx cost = R12.5 bn;
- Main rationale potable water, hydro-electric, and job creation
- Agric potential talked up but dimensions very unclear
- Merely a 'prestige project'? (SONA: "critical for rural livelihoods") Yes, but too simple...
- Efforts to communicate with affected communities has been extensive, yet awareness remains low
- Current status unclear; probably cost is main issue



Leaving aside highly erodible land, irrigable hectares = approx 2000 (van Tol et al., 2016)

#### **Non-schemes**

- Interviewed 12 farmers in Port St Johns area
- Supplying PSJ and Mthatha, mix of formal and informal markets
- Why PSJ?
- Retirees, or children of farmers
- 4 to 12 hectares; mix of family land and rented (R1500 to R4000 per hectare)
- Pumps given by Public Works, or bought
- Sprinkler irrigation
- Various crops: maize, cabbage, butternut, spinach, tomatoes, potatoes, etc.
- Overall scale: difficult to say approx 20-40 in PSJ area?











- Labour use:
  - about 0.5 to 1 permanent worker per hectare
  - About 1 to 1.5 seasonal/casual worker per hectare
- As compared to LSCF? More, though not dramatically

#### **Tentative conclusions**

- Job creation potential on schemes is ample by virtue of their current state
- Problem = history + current approaches
- Counter-intuitively, supporting 'food plots' may be best approach?
- New schemes: very limited
- Non-schemes interesting development, sense that potentially more dynamic than schemes; but overall potential difficult to gauge