COOPERATIVES IN WASTE AND RECYCLING: A Recipe For Failed Waste Hierarchy Implementation?

WasteCon 2018

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CSIR
our future through science

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Background / Intro

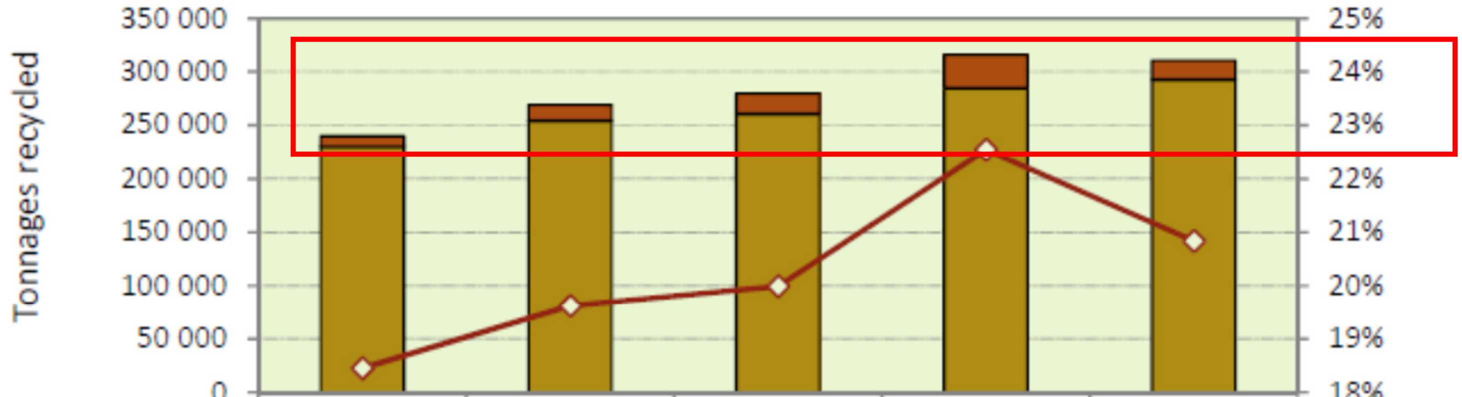
- SA losing potential resources to landfill due to poor S@S.
- DEA, 2011 - national baseline:

General Waste 2011		Generated	Recycled	Landfilled	Recycled
		Tonnes			%
GW01	Municipal waste (non-recyclable portion)	8 062 934	-	8 062 934	0
GW10	Commercial and industrial waste	4 233 040	3 259 441	973 599	77
GW13	Brine	See Table 10			
GW14	Fly ash and dust from miscellaneous filter sources	See Table 10			
GW15	Bottom ash	See Table 10			
GW16	Slag	See Table 10			
GW17	Mineral waste	See Table 10			
GW18	Waste of Electric and Electronic Equipment (WEEE)	See Table 10			
GW20	Organic waste	3 023 600	1 058 260	1 965 340	35
GW21	Sewage sludge	See Table 10			
GW30	Construction and demolition waste	4 725 542	756 087	3 969 455	16
GW50	Paper	1 734 411	988 614	745 797	57
GW51	Plastic	1 308 637	235 555	1 073 082	18
GW52	Glass	959 816	307 141	652 675	32
GW53	Metals	3 121 203	2 496 962	624 241	80
GW54	Tyres	246 631	9 865	236 766	4
GW99	Other	36 171 127	-	36 171 127	0
Total general waste [T]		**$\boxed{59\ 353\ 901}$**	**$\boxed{5\ 852\ 484}$**	**$\boxed{53\ 501\ 417}$**	**~10**

(-) means no data on recycling was available. GW01 – only the non-recyclable portion is reported here.

Background / Intro

- SA exporting potential recycled material, ~5% of recycled plastics (PlasticSA, 2016)



	2011	2 012	2 013	2014	2 015
Waste exported	9 758	14 744	18 919	31 087	17 724
Total tons recycled	230 111	254 054	260 930	284 521	292 917
Diversion rate	18.5%	19.6%	20.0%	22.5%	20.8%

Background / Intro

- This paper presents some PRELIMINARY FINDINGS from an ongoing study investigating the sustainability of SMEs (including cooperatives) in KwaZulu-Natal (KZN).

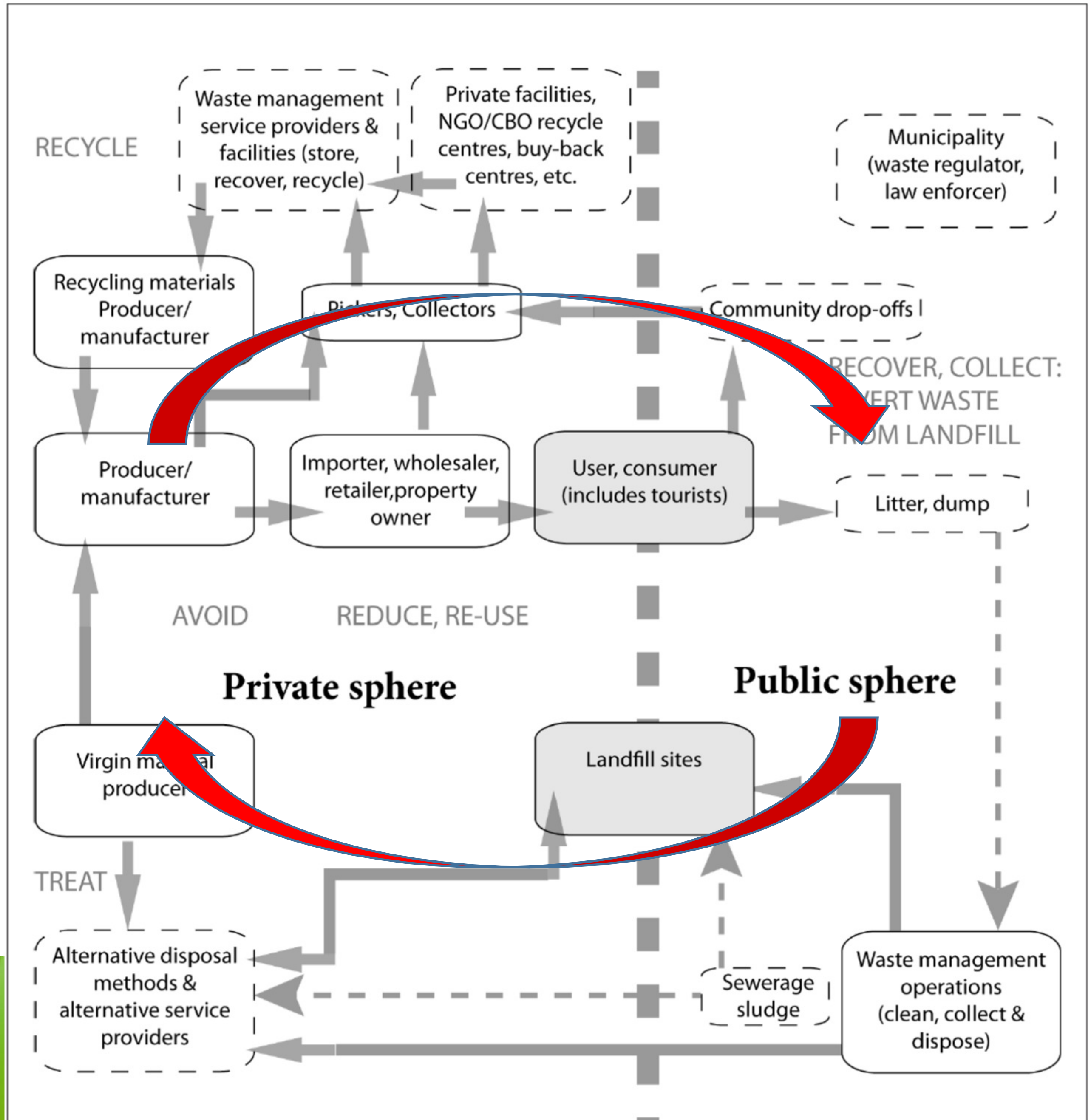
- The study examines the contributions of these SMEs to the green economy, their …

- Ability to adapt to CHANGING TECHNOLOGY and

- The impacts on MATERIAL FLOWS both locally and globally.

Role of SME's

- SMEs can play a role in the circular economy, and return of recyclables (material flows).
- SMEs & coops, contribute towards S@S programs (collection activities), initial processing (sorting and bailing), manufacturing and recycling activities (Maia et al., 2011).
- SMEs also as buy-back centres and material recovery facilities (MRFs).
- Packaging South Africa reports that the majority (reportedly 80-90% by weight) of post-consumer paper and packaging waste (recyclate) is recovered by the informal sector.



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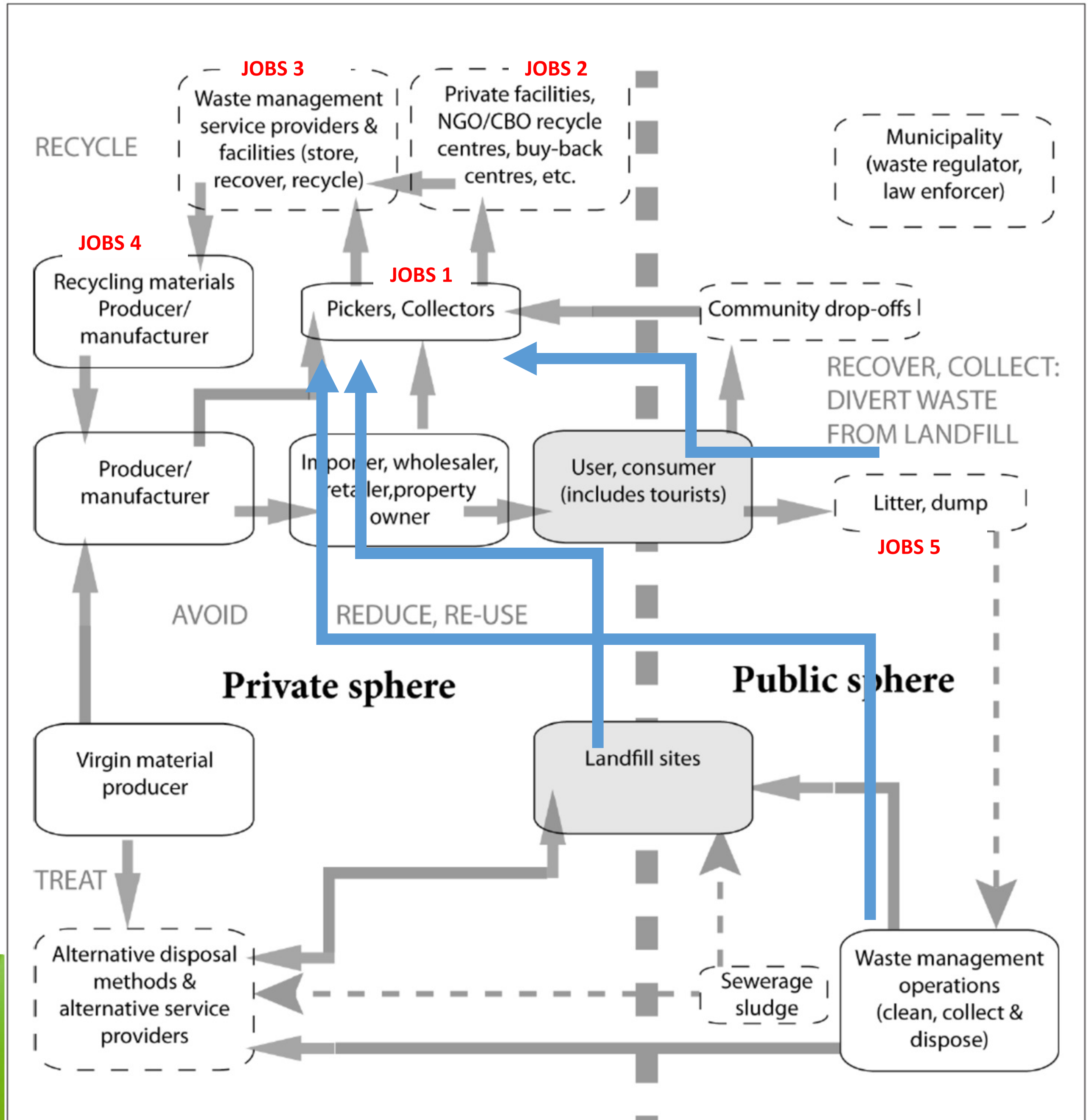

JOBS 3
Waste management service providers & facilities (store, recover, recycle)
JOBS 2
Private facilities, NGO/CBO recycle centres, buy-back centres, etc.
Municipality (waste regulator, law enforcer)
RECYCLE
JOBS 4
Recycling materials Producer/ manufacturer
JOBS 1
Pickers, Collectors
Community drop-offs
RECOVER, COLLECT: DIVERT WASTE FROM LANDFILL
Producer/ manufacturer
Importer, wholesaler, retailer,property owner
User, consumer (includes tourists)
Litter, dump
JOBS 5
AVOID
REDUCE, RE-USE
Private sphere
Public sphere
Virgin material producer
Landfill sites
TREAT
Alternative disposal methods & alternative service providers
Sewerage sludge
Waste management operations (clean, collect & dispose)
WasteCon 2018

Coops in SA

- Prior to 1994, cooperatives existed mainly under the national Department of Agriculture (The dti, 2009).

- Following a consultative process in 1997 the mandate was transferred to the Department of Trade and Industry.

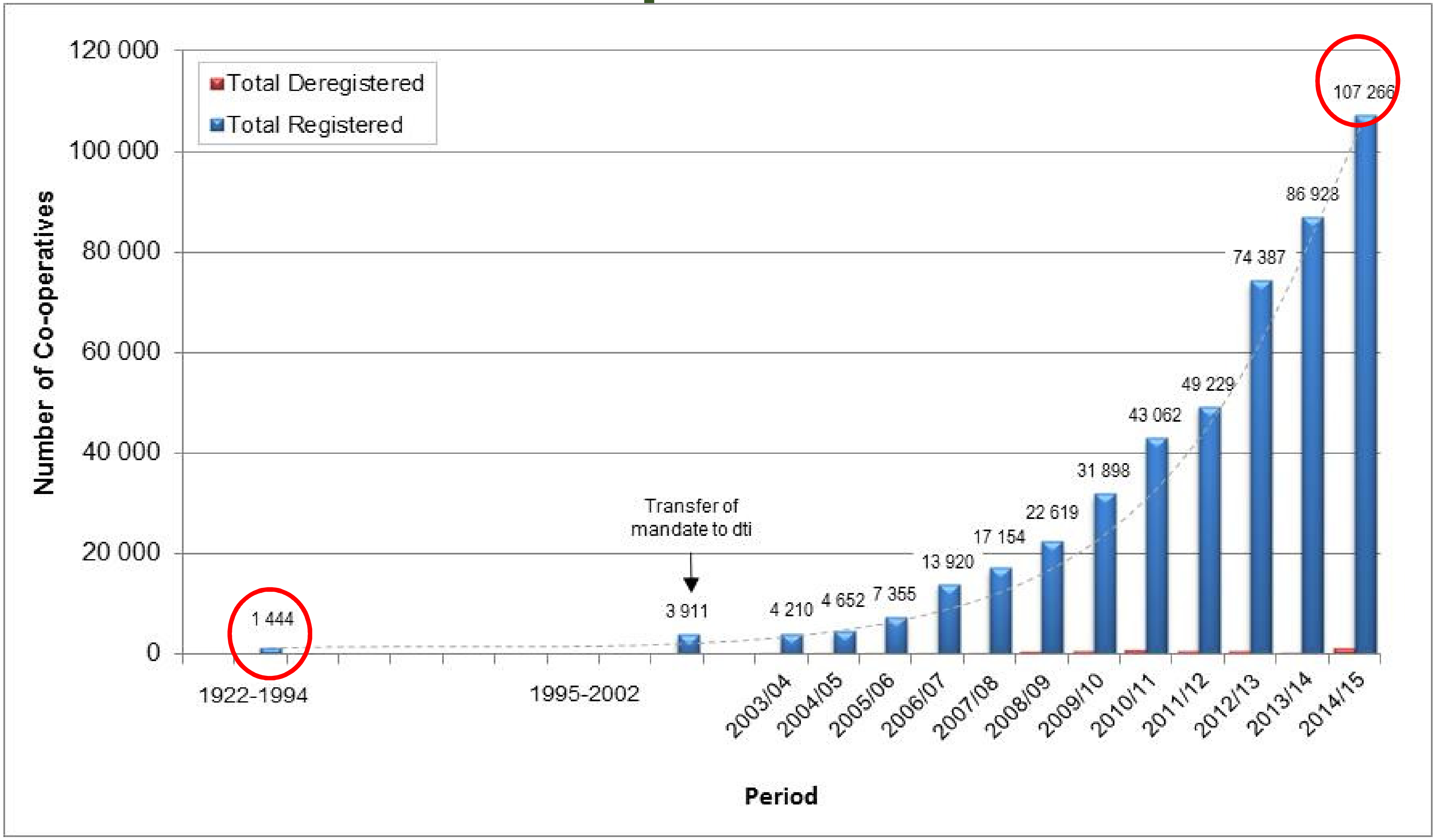
- This deliberate attempt to support and encourage the growth of other forms of cooperatives besides agricultural cooperatives.

- In 2014, the responsibility for SMEs and cooperative development was transferred to the Department of Small Business Development (DSBD) (Balkaran, 2017).

Coops in SA

- Government provides various forms of support to cooperatives (Training; CIS; Grants for equipment). The cooperative incentive scheme (CIS) is one form.
- CIS was initiated through The dti and included a 90:10 grant of up to R300k for cooperatives.
- In 2014, this scheme was transferred to the DSBD. The 90:10 formula of the grant was also amended to a 100% grant of R350k requiring no contributions from the cooperative.
- The number of cooperatives registered on a year on year basis has grown almost exponentially since 2003.

Coops in SA



Total Deregistered
Total Registered
Number of Co-operatives
120 000
100 000
80 000
60 000
40 000
20 000
0
1 444
Transfer of mandate to dti
3 911
4 210
4 652
7 355
13 920
17 154
22 619
31 898
43 062
49 229
74 387
86 928
107 266
1922-1994
1995-2002
2003/04
2004/05
2005/06
2006/07
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
Period

Coops in SA

Comparative Analysis of Registered Co-operatives in CIPC and The dti Baseline Study, Mortality and Survival Rate (from The dti, 2012)

	Number of Registered Co-operatives[9]	Number of Surviving Co-operatives[10]	Number of Dead Co-operatives	Survival Rate	Mortality Rate
				%	%
National Picture	**22 619**	**2 644**	**19 975**	**12**	**88**
Northern Cape	798	20	778	3	98
Eastern Cape	No data	287	3 957	7	93
Western Cape	No data	69	934	7	93
Free State	900	71	829	8	92
KwaZulu-Natal	8 697	1 044	7 653	12	88
Mpumalanga	1 496	187	1 309	13	88
North West	1257	167	1 090	13	87
Gauteng	2 365	394	1 971	17	83
Limpopo	1 879	405	1 474	22	78

Coops in SA

Sector analysis of co-operatives as at 2009 (modified from The dti (2012))

Type of Co-ops	CIPC 2009 data	The dti, Baseline Study	Survival rate (%)	No. of dead cooperatives	Mortality rate (%)
Trading	2 708	47	2	2 661	98.30%
Transport	856	50	6	806	94.20%
Multipurpose	3 160	187	6	2 973	94.10%
Recycling & waste management	**85**	**7**	**8**	**78**	**91.80%**
Services	4 209	357	9	3 852	91.50%
Consumer	128	11	9	117	91.40%
Food and agriculture	6 086	671	11	5 415	89.00%
Manufacturing	1 093	137	13	956	87.50%
Mining	78	12	15	66	84.60%
Financial/Credit Services	233	36	16	197	84.50%
Construction	1 280	202	16	1 078	84.20%
Textiles	1 247	272	22	975	78.20%
Home industry (Baking)	334	83	25	251	75.10%
Other	328	89	27	239	72.90%
Social	311	90	29	221	71.10%
Burial	65	19	29	46	70.80%
Arts and crafts	340	103	30	237	69.70%
Housing	78	25	32	53	67.90%

Coops in SA - Challenges

Lack of understanding of the cooperative business model amongst members (The dti, 2012):

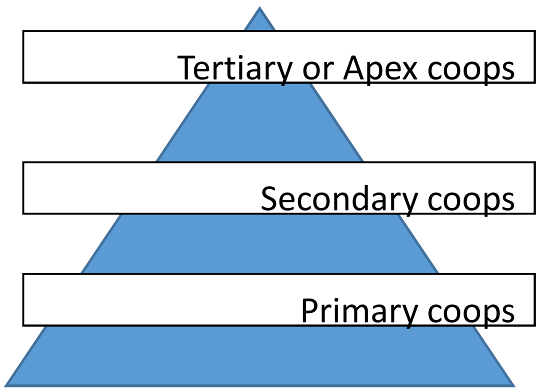
- Poor business and management skills amongst members (cooperatives are started by the unemployed and low skilled individuals with no previous business experience and located in impoverished areas. The cooperative members lack sector-specific training, business skills, fiscal management, and information communication and technology (ICT) computer skills (which are integral to taking advantage of opportunities offered by the fourth industrial revolution (4IR) discussed later) and marketing.
- Poor financial trust between members, no shared vision and strong social cohesion, no shared approach.
- Poor and sometimes undemocratic decision making, boards failing to communicate with members resulting in unnecessary tensions.
- Limited cooperation between different cooperatives resulting in isolation, missed opportunities to collaborate and learn from each other.
- Strong and overriding individual interests, greed and moving away from servicing the collective interest.
- Poor self-reliance, there is a need for support in the early stages but the cooperatives need to work towards self-sufficiency.
- Poor compliance with legislation, for instance, less than 1% submit financial reports.

Coops in SA - Challenges

Coops not well understood by National Provincial & Local government (The dti, 2012):

- Lack of statistics on the social and economic impact of the cooperative sector.
- Poor coordination between the different government spheres on their roles and lack of clarity.
- Limited and unfocused/uncoordinated support for cooperatives.
- Limited understanding by development funding institutions on the cooperative business model and what support it requires.
- Poor accessibility to registrations at province and local levels, leading to delays (i.e. delays and red tape to swap out inactive members).
- Limited understanding of the value of (community-based enterprise) and how the cooperative model works.
- Red tape and administrative requirements which discourages informal groups (i.e. stockvels) from registering as cooperatives.
- Poor access to finance because development finance institutions do not understand the cooperative business model (i.e. the sharing of surpluses).
- Limited access to appropriate technologies for their businesses to improve their outputs (scales, bailers, compactors).
- Lack of business premises, with cooperatives operating from their homes rather than a business or commercial address.

Coops in SA - Prelim Findings



DSBD - FOCUS ON CLUSTER AND TERTIARY COOPS

- The total number of cooperative enterprises supported by the DSBD has declined from 2014 to present (2018).
- In the current 2018 budget vote (National Treasury, 2017), the DSBD has indicated a shift from supporting primary cooperatives to supporting cluster cooperatives.
- The total support for each cluster cooperative will increase to a maximum of R10 million per application.

Coops in SA

Comparison of enterprises supported (on CIS) for period 2014-2021 (National Treasury, 2018)

Period (years)	No. of cooperatives financially assisted through the cooperative incentive scheme	Estimated Value of Support (R)
2020-2021	33[11]	
2019-2020	71	
2018-2019	122	
2017-2018	270	R 94 500 000.00
2016-2017	370	R 129 500 000.00
2015-2016	350	R 122 500 000.00
2014-2015	431	R 150 850 000.00

Coops in SA - Prelim Findings

DSBD - FOCUS ON CLUSTER AND TERTIARY COOPS

- A concern is underlying issues of <u>sustainability of primary cooperatives</u>, this <u>increased spend</u> focused on tertiary or cluster cooperatives may also be wasted.

- The designation of the DSBD to support cluster or tertiary cooperatives is a step in the right direction to drive the cooperative agenda and contribute to the sustainability of cooperatives in the country.

- However, this will only work if primary cooperatives are sustainable.

Coops in SA - Prelim Findings

DSBD - FOCUS ON CLUSTER AND TERTIARY COOPS

- Additional research and statistics on the impacts of cooperatives in communities, government playing a coordinating function and driving policy interventions with development finance institutions.

- The DSBD already driving the training of cooperatives.

- Additional waste management specific sectoral training can be delivered through partnerships with stakeholders engaged in waste and recycling training.

- Training sessions with municipalities to educate them about the cooperative business model, and how to apply and support it.

Coops in SA - Prelim Findings

DSBD - FOCUS ON CLUSTER AND TERTIARY COOPS

- However, it should be noted that cooperatives are not the only business model that can drive job creation.

- A balanced approach should, therefore, be taken in this regard particularly in terms of the understanding of other forms of SMEs (e.g. Ptys, Close Corporations, Non-Governmental Organisations, Community Based Organisations and Joint Ventures which are reported in the literature, that can drive job creation.

Coops in SA - Prelim Findings

4ir - FOURTH INDUSTRIAL REVOLUTION AND ITS IMPLICATIONS FOR COOPERATIVES AND SMMES

- Technology brings new and improved ways of doing things. We need to exploit technology / and innovation.

- SA Coops experience challenges in making use of new forms of technology and ways of doing business.

- Waste & recycling coops in SA, which face severe challenges in the form of access to basic equipment (i.e. scales, compacting and bailing machines), innovation, basic managerial skills (i.e. submitting financial statements, & managing accounts), technical knowledge and skills

Coops in SA - Prelim Findings

FOURTH INDUSTRIAL REVOLUTION AND ITS IMPLICATIONS FOR COOPERATIVES AND SMMES

- In contrast to coops, other forms of SME's displayed levels of innovation (paying informal collectors by e-wallet, leveraging social media, whatsapp groups to time and arrange collections).

- Both SMEs and coops in this study report having to play catch up with changing legislation and regulations – web-based platforms can distribute these notifications or information.

Coops in SA - Prelim Findings

MATERIAL FLOWS FROM LOCAL AND GLOBAL MARKETS

- There are local material flows taking place within the province (activities like pelletizing, crumbing, fibre extrusion and some manufacturing of relatively high-value packaging recyclate taking place).
- Challenge of uncollected glass apparent at intersections.
- There are also international material flows (China, Malaysia etc.).

Coops in SA - Prelim Findings

MATERIAL FLOWS FROM LOCAL AND GLOBAL MARKETS

- The Chinese instituted a ban on mixed recyclables in 2018. These are likely to continue and get tougher in 2019.

  1) Could be viewed as a disaster especially for SMMEs and Coops who through middle men export; or

  2) As an opportunity to improve the quality of exported recyclate (and realise higher profits and better market access);

  3) As an opportunity to develop the local recycling industry to process the materials locally which will drive local jobs

CONCLUSION

- Some preliminary findings are presented in this paper.
- Coops are known to have high mortality rates & low survivability (other SME Models also work).
- The DSBD appears to have shifted focus to supporting tertiary and cluster coops.
- Underlying sustainability issues of primary coops need to be addressed (GOVT & COOPS).
- Coops (in contrast to other SMEs) are described as late adaptors of technology and require sector-specific training.
- Coops may not be able to capitalise on the opportunities that the transition to 4IR presents.
- Sustainability of coops is affected by local and external market and political forces (the recent operation green fence in China is an example of this).
- Adding value to the recyclate collected is a possible hedge against these market fluctuations, manufacturing locally – LOCAL IS LEKKER.

Thank you for your attention

Any questions

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