

Post Office



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**ADDRESS EXPANSION
IN
RURAL AREAS**

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Background

- The Post Office delivers to approximately 10 million addresses. Most of these have been in urban areas. More than half are PO Box addresses and less than half are Street addresses.
- PO Box addresses do not satisfy some requirements such as FICA compliance and are often inconvenient for rural areas.
- In 2003 we received a mandate from our shareholder to ensure that all households in South Africa have access to postal services. The number of households is approximately 11 million. This in particular means that we must deliver to rural areas as well as urban.
- Thus we were required to expand our street delivery addresses by 7 million, 90% of which should be in rural areas. These targets were set.

Achievement vs. Target

- Our address expansion project has been very successful so far.
- Between September 1994 and November 2004 we achieved 4.3 million additional addresses.
- Rural address expansion was given higher priority, so emphasis was placed on this.
- In the financial year to the end of March 2007, we achieved 1.82 million additional addresses against a target of 1.65 million.

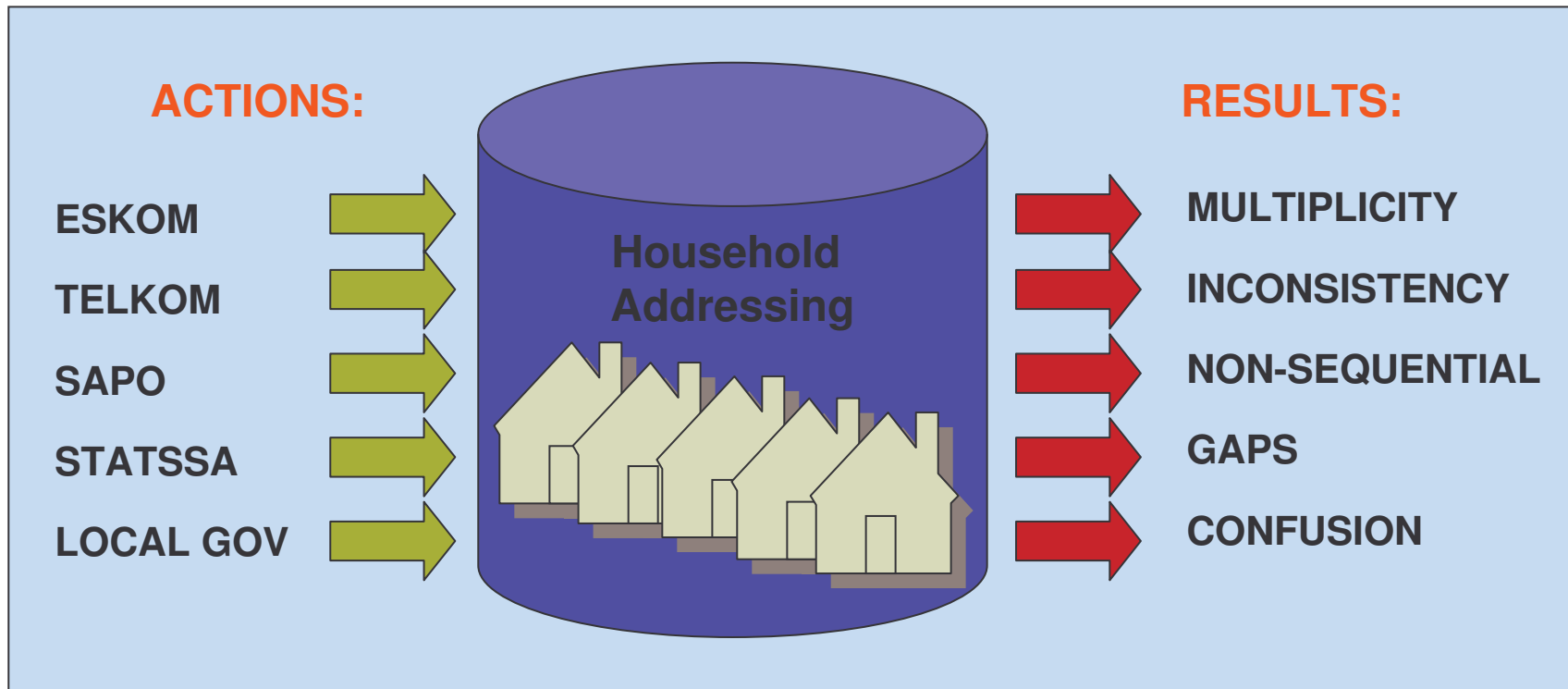
Achievement vs. Target for This Year

Performance for Financial Year April 2006 to March 2007

Performance against target	Target	1 645 678	
	Actual	1 819 211	
	Variance	173 533	+ 10.5%
Address type	PO Boxes	13 512	0.8%
	Street delivery	1 805 699	99.2%
Areas Serviced	Urban	460 195	25.3%
	Rural	1 359 016	74.7%

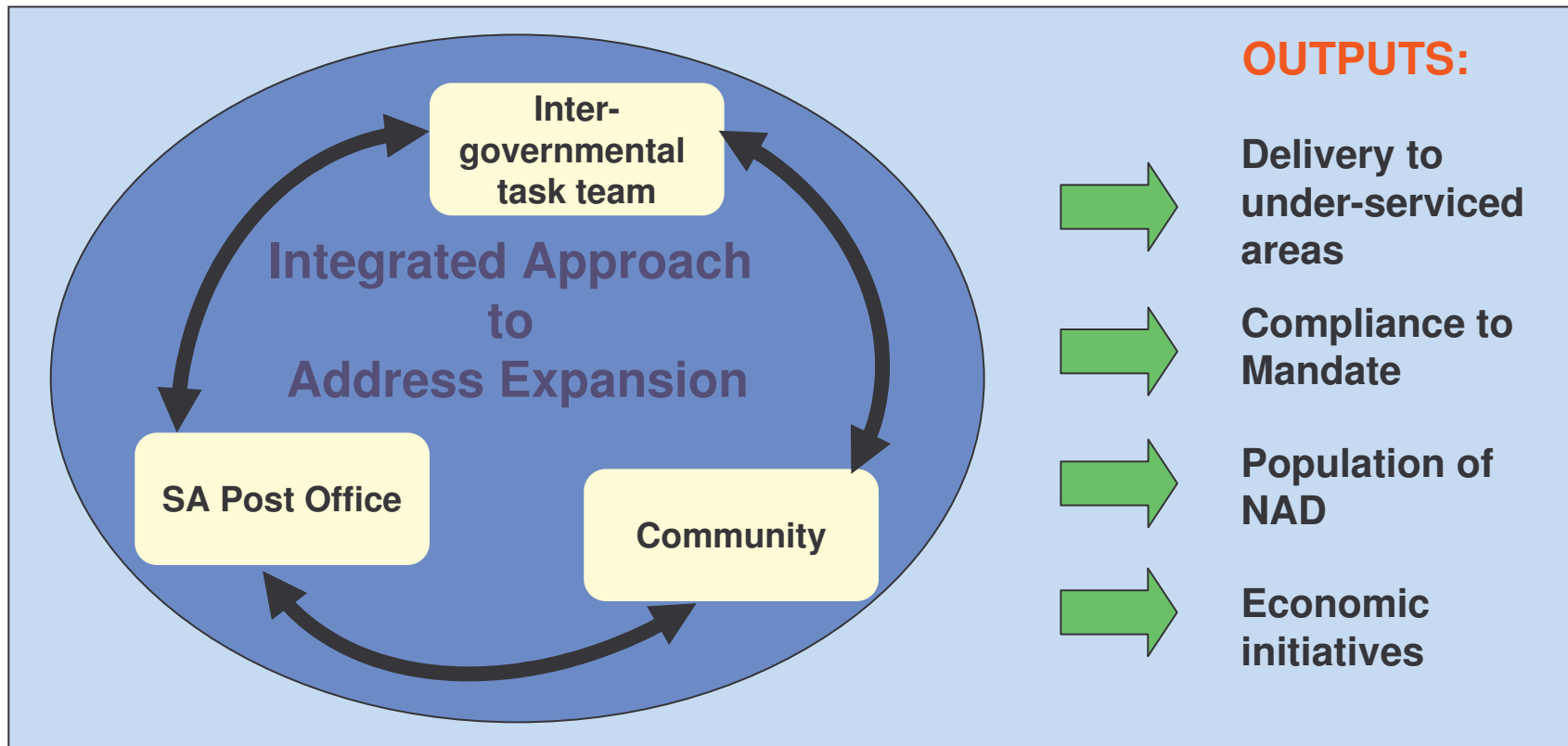
- We have consistently exceeded periodic targets and we have achieved most of the 7 million target.

The Current Scenario



- Service providers have applied their own addresses to houses.
- This has resulted in disordered multiple addresses.
- Standardization and Integration has become highly desirable.

The New Scenario



- The Integrated Approach represents a unified way of addressing.
- Comprehensive addressing and delivery provides several additional benefits.

Address Data Structure

- A **six-digit number** is used to identify a **specific dwelling**, as follows:
 - **Each village** within an area is identified and allocated a **two-digit number**.
 - **Each section** within the village is allocated a **two-digit number**. The allocation of numbers is sufficiently flexible for further additions to the village.
 - **Each dwelling** within the section is allocated a **two-digit number**.
 - This gives a **six-digit number** is used to identify a specific dwelling.
- If the stand has more than one household, as is sometimes the case in rural areas, each housing unit will be numbered 110102A, 110102B, etc.
- Any leading zeros may be dropped, giving a five-digit number.

Example:

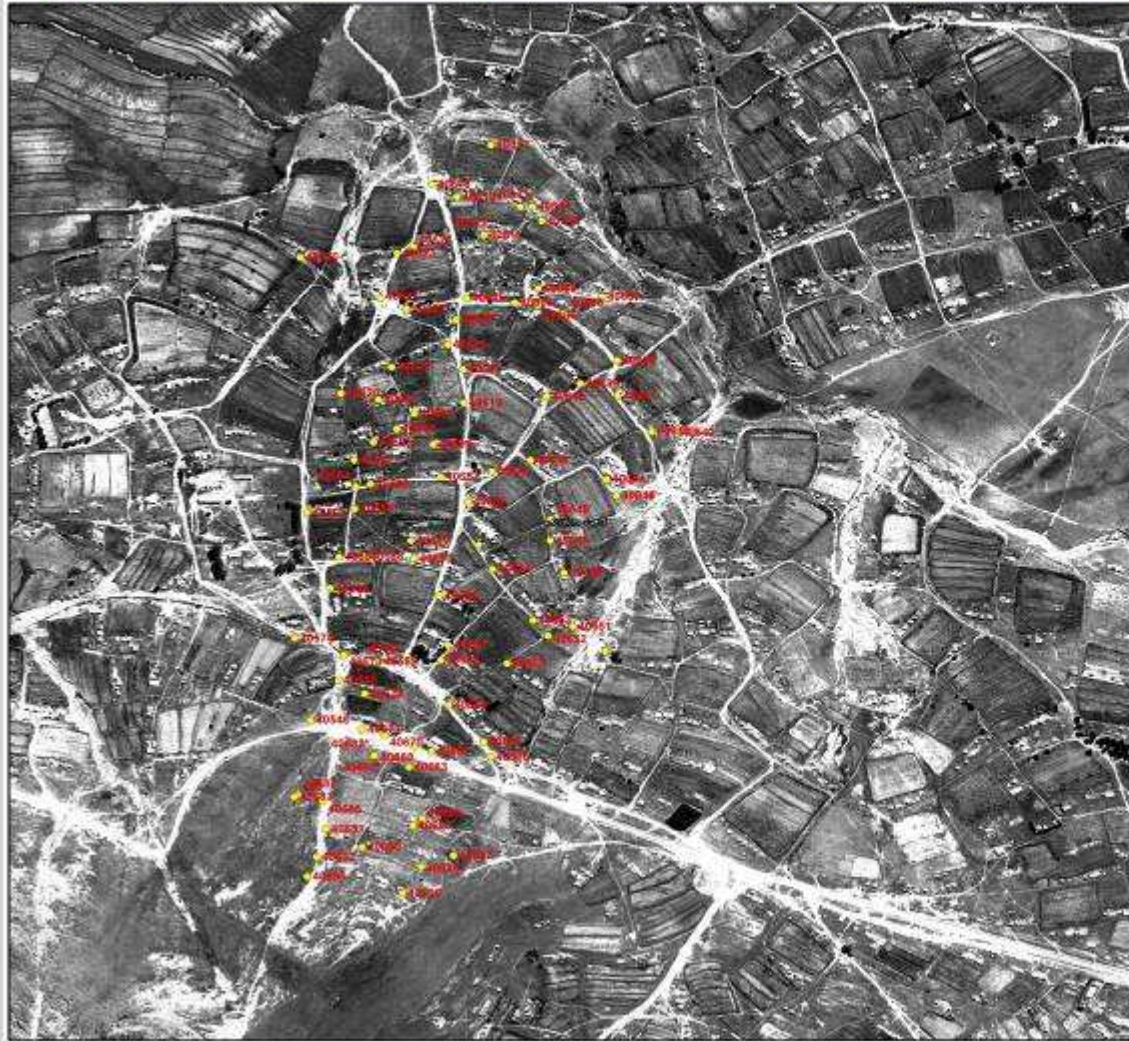
- A number consists of six digits, e.g. 110102:
- The **first two digits**, 11, represent the particular **village**;
- The **next two digits**, 01, represent the **section** within the village;
- The **last two digits**, 02, represent the **stand or dwelling** number.

This data structure is compliant with another strategic project – the new **National Postal Addressing System and Postcode**.

Physical Addressing

- An entire village is mapped. This is done in consultation with the local community according to the local structures.
- There are several activities:
 - Consultation with village Indunas
 - Aerial photographic survey of the village
 - Address data allocation
 - Household details data capturing
 - Geo-coordinates capturing
 - Data capturing and verification
 - Address allocation to households
 - Physical numbering of dwellings
 - Distribution of Welcome packs.
- In consultation with the Induna/Chief/Head, a Postal Agent is appointed for the village. This is the contact point for all service delivery in that village.

Esikolweni2



Post Office
Postkantoor



Esikolweni2 NUMBER, OCCUPIER

4594	NOMBULELO BHLANA	4641	MOLLEZWA NDLAKUSE
4595	MFUNDO MVOYO	4642	NOKOMANI MAKHOSI
4597	SINDILE DINKA	4643	MALUNDELO MGOYA
4598	LUQONDOLO MAMAVICI	4644	MCETYELWA BLANK
4599	FUNDO ZANBOHAYA	4645	SINAKA MCHUTHULLEKA
4597	FALTHILANA MROTYAMA	4646	MZULILE MVEKWAYO
4598	ZOLANI MARAWU	4647	PHOCISA MRHWETZYANA
4599	BONGANI MANYABA	4648	BLANA MCETYELWA
4594	DUMDANI MRHWETZYANA	4649	MALALI DAVID
4595	BONGWE MPONGOMA	4650	MZULILE MVEKWAYO
4596	FANYI MPONGOMA	4651	PHOCISA MRHWETZYANA
4597	NOKUZELA MRHWETZYANA	4652	ZENZELE MKHATHAZA
4599	NOKUZELA MRUMA	4653	NOTHULILE MGEKWA
4601	LINA MAYEKISO	4654	CLAYDA MHLABE
4602	NOTSHOKAZI TSHONA	4656	MAMADITO DIKO
4603	SAHYSI HONGANE	4657	MAMQINGWE NONTLANTANA
4604	ZANAKHALISA	4658	S.O LOREWA
4605	ZWALIPHELI KUTSE+	4660	MAMADITO DIKO
4606	MASIZA LUPHONGOLO	4661	DIKO NOBONGILE
4607	MALUNDELO ADWADLA	4662	MORNING MOLALEDI
4608	MATSHONA OLOYA	4663	NOVARO BLANA
4609	MZULU NGCOKA	4664	NOVAKHOSAZANA NONTLANTANA
4611	UNDELA DUSHA	4665	MABENQO TUNDEI
4612	MALUNDELO DIKO	4666	PHETHILA MAINTUMBI
4613	LINDANI VEZI	4667	ZAKHULE NDLUKISE
4614	SOLOMO DIKO	4668	BOMGODILE MAYEKISO
4615	PHOGA DIKO	4670	NONTLANTANA NOVAKHOSAZANA
4616	NOZAMLE BOMPTSHO	4671	THESEKHON TUNDEI
4617	ZWALIPHELI KUTSE+	4672	VELILE TUNDEI
4618	JAMES LANGA TSHONILE	4673	MORNING MOLALEDI
4618	KAPONSI NYABA	4687	SIMON ZWELITHU MBI
4620	LINDA LUGONGOLO	4682+	ZWELITHA MAGUGWANA
4621	JANET MROTYAMA	4683	
4623	MANKHAWU LUQONDOLO	4683	MZULILE NKOMONYE
4624	HARWAS MAHLOMO	4685	NOKAFHEMVA MGEKWA
4625	HARWAS MAHLOME	4688	SMTHEMBILE MARIYWA
4626	JOAN PICA	4687	BONGWE MTHWAKHULU
4627	NONTSAPHO FICA	4688	NOVAVISO BLANK
4630	MTHENDS BEAUTY CHAMP	4689	MABE MBEKO
4635	MOKHAKHWE TEYISE	4689	SALWO HOTOTO
4636	NOPIELO NGCOKA	4689	MGEKWA ZENZELE
4637	MOKHAKHWE MGEKWA	4689	YEKAN NONTLANTANA
4638	NOMBONISO VEZI	4691	THIBALIHLE NYEMBEZI
4639	NOVAKHOSATHELE NOKOMANI	4682	NOKAFHEMVA MGEKWA
4640	MARGANTSA MGEKWA	4686	NOZAMLE NKOMONYE
		4687	NGCOKA SIBUSWE
		4688	SANDILE MATHELANA

Aero-photographic identification of dwellings

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Kwazulu1

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KWAZULU1

NUMBER, OCCUPIER

- 00401, MANTOMBELA PRE-SCHOOL
- 00402, CONGREGATION CHURCH
- 00403, NKOMONYE MENDULO
- 00404, MLUNGUWANA GSEDE
- 00405, NOGINYA THOBILE
- 00406, MHLAKULWANA MARIETHA
- 00407, JEYEDI FRIDKA
- 00408, MHLAKULWANA SHEKITHEMBA
- 00409, MARIKOSI MAZOKHE
- 00410, MARIKOSI NOKHAKHA
- 00411, SITHANDATHU MAFLANGENI
- 00413, MGIUBO FUDLE
- 00414, DINGWE CONSTANCE
- 00416, DINGWE MAMULU
- 00417, DINGWE MARIKOSI
- 00418, NOKO GALATYANI
- 00419, NYIKINYA DUMILE
- 00420, NOKOYA DABUKHE
- 00421, BHOVA MAMTOLI
- 00422, MHLAKULWANA ZIMBELE
- 00423, NOKO MPHUNGULELWA
- 00424, NOKO NOKWAKHA
- 00425, LUGUNDULE BETTY
- 00426, NOKO WINKLE
- 00427, BHOVA BANTUSAKHE
- 00428, MHLAKULWANA MARIKOSI
- 00429, NOKO MNYAMEZULU
- 00430, MHLAKULWANA GEDLA
- 00431, MHLAKULWANA MARIKOSI
- 00432, NOKO BHOVA
- 00433, NOKO MADELWA
- 00434, NOKO DODA

Aero-photographic identification of dwellings

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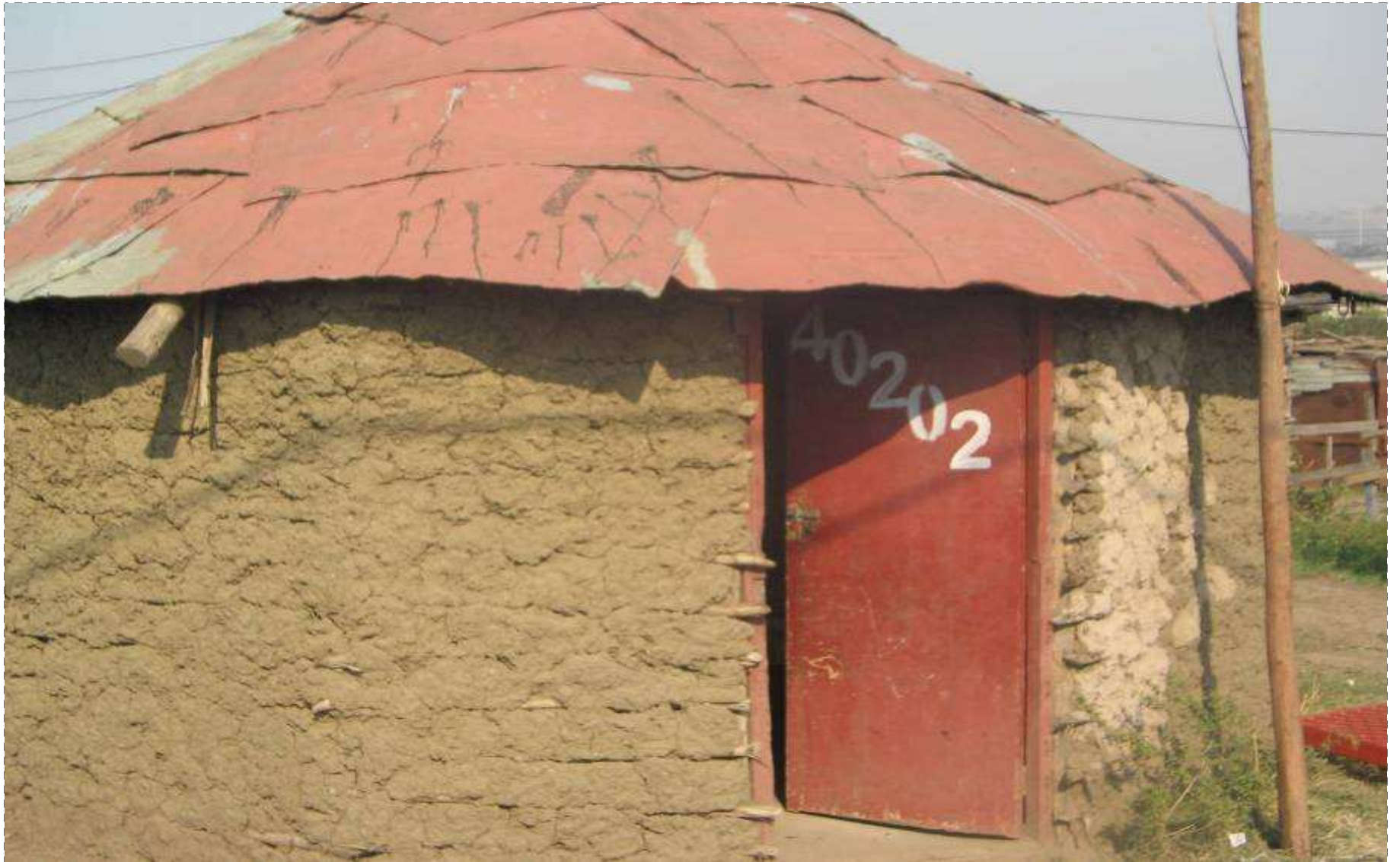
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Physical Addressing

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Physical Addressing

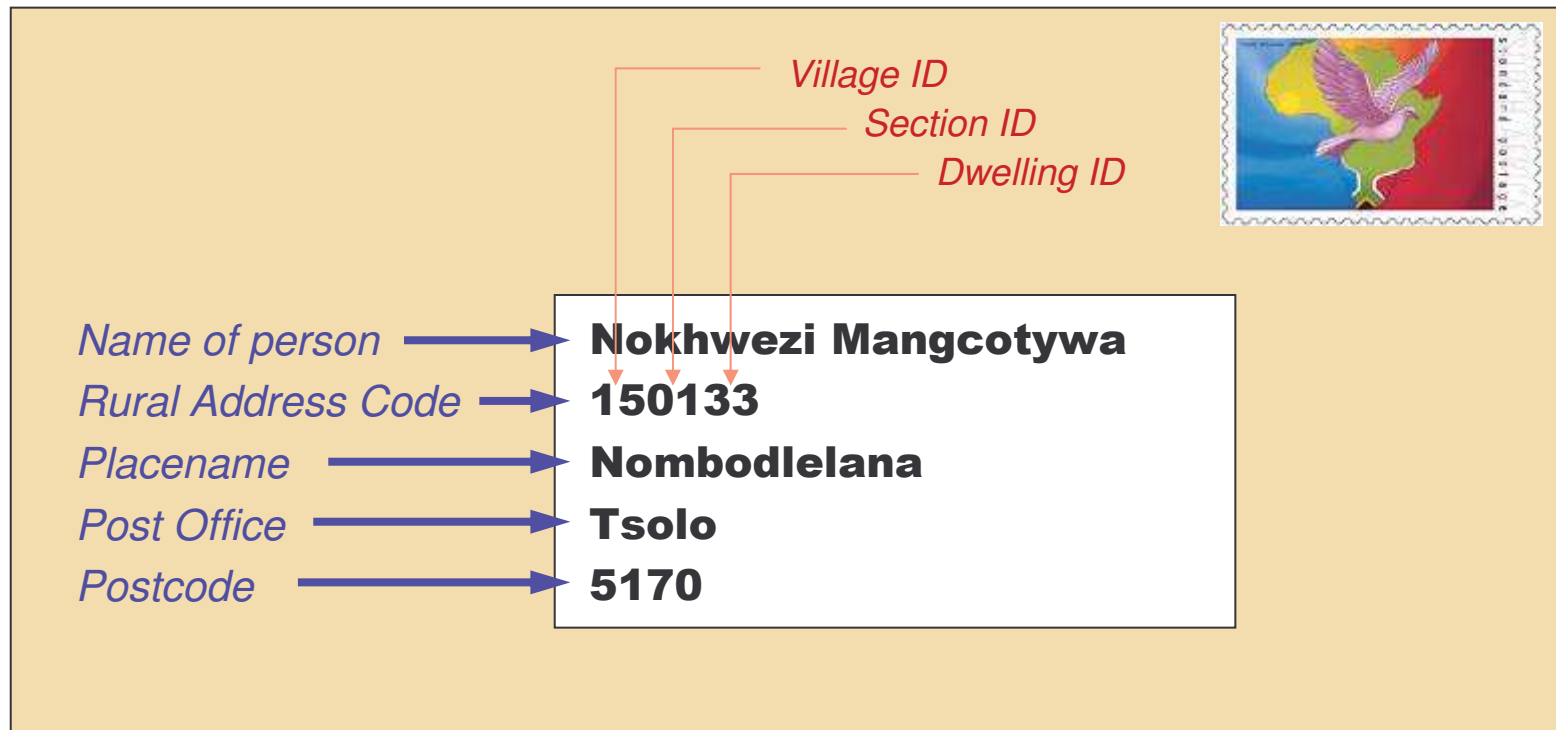
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Physical Addressing

Rural Address Written Example



The diagram shows a rural address written on a light brown background. On the right, there is a postage stamp featuring a pink bird flying over a map of South Africa. The address is written in bold black text: **Nokhwezi Mangcotywa**, **150133**, **Nombodlelana**, **Tsolo**, and **5170**. Blue arrows point from labels on the left to the corresponding parts of the address. Red arrows point from labels above to the digits of the Rural Address Code. A postage stamp is located in the top right corner of the address area.

Village ID
Section ID
Dwelling ID

Name of person → **Nokhwezi Mangcotywa**
Rural Address Code → **150133**
Placename → **Nombodlelana**
Post Office → **Tsolo**
Postcode → **5170**

- This fits in with the new Postal Addressing and Postcode System.
- Specific information can be derived from a written rural address:

Rural Address Example

Rural Informal address search

Example 1

The Written Address:

010203 Feni
Peddie
5640

What can be derived From the Written Address:

Village, Section and Dwelling:	01 02 03
Placename (= village):	Feni
Post Office:	Peddie
Postcode:	5640

What can be derived from the Postal system link: lookup postcode 5640

Postcode:	5640
Post Office:	Peddie
Mail Centre:	East London
Region:	Eastern Cape

What can be derived From the GIS link: Lookup placename FENI

SubPlacename:	Feni	21503005
MainPlacename:	Bhele	21503
Municipality:	Ngqushwa	215
Province:	ECape	2

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Captured Data Example

STREET DELIVERY PILOT PROJECT : MAPUMULO

DISTRICT

MAPHUMULO

DATE OF PROJECT

SEPTEMBER ,28,04

PROCESSING CENTRE

DURMAIL

AREA OFFICE

HIGHWAY

AREA TYPE

RURAL AREA

FREQUENCY

OFFICE DETAILS					CLIENT DETAILS			GPS COORDINATES	
VILLAGE (SUBURB)	SECTION (STREET)	HOUSE NUMBER	POST OFFICE	POST CODE	NAME & SURNAME	ID NUMBER	TELEPHONE & CELL	LONGITUDE	LATITUDE
01	01	01	MAPUMULO	4470	VUSUMUZI LUTHULI	3511165094080	032-4817762	29 11"667'	31 03"480'
01	01	02	MAPUMULO	4470	KHUMBULANI LUTHULI	3708105377084	082-7281610	29 11"736'	31 03"319'
01	01	03	MAPUMULO	4470	PHATHWA MCHUNU	6210065748088	082-4266440	29 11"603'	31 03"442'
01	01	04	MAPUMULO	4470	MBUSI MAJOLA	6508145236085	072-6670309	29 11"735'	31 03"258'
01	01	05	MAPUMULO	4470	NKOSITHINI SHANDU	4707135497085	072-4504118	29 11"708'	31 03"218'
01	01	06	MAPUMULO	4470	BHEKISSENI MBATHA	5404015375082	073-0632031	29 11"779'	31 03"245'
01	01	07	MAPUMULO	4470	MALUSI P SHANDU	8102265590089	082-3557585	29 11"429'	31 03"097'
01	01	08	MAPUMULO	4470	HLEZI MTHIYANE	4410130149088		29 11"828`	31 03"170`
01	01	09	MAPUMULO	4470	MAJORI SHANDU	3212290218088		29 11"429'	31 03"059`
01	01	10	MAPUMULO	4470	MBONISWE MAGWAZA	1312270073081		29 11"889'	31 03"231`
01	01	11	MAPUMULO	4470	SBONGILE SHANDU	6402090347081	083-4712010	29 11"358'	31 03"073`
01	01	12	MAPUMULO	4470	THULILE B ZULU	2604170242082		29 11"912'	31 03"170`
01	01	13	MAPUMULO	4470	EMILY MADLALA	4806130584085		29 11"391`	31 02"592`

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Compiled Data Example

VILLAGE	WARD_	TOWN	POSTAL_COD	CODE	COMMENTS	Latitude	Longitude
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.941955245	29.260999849
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.947083727	29.263544004
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.947036275	29.263218510
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.946538720	29.262755457
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.946344605	29.262760648
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.946424414	29.262426892
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.946536175	29.262394677
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.947400621	29.262960596
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.947354949	29.262560201
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.947567973	29.262432616
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.947235483	29.261950853
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.946740156	29.261747909
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.946343105	29.261774916
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.947627933	29.261775531
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.948207519	29.261825167
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.948412884	29.262395267
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.948474958	29.262858571
KWAZULU	5	NTABANKULU	5130	01 COMPLETE		-30.948237486	29.263239697

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New Postal Addressing and Postcode System

- This Rural Addressing data structure complies with our new **Postal Addressing System and Postcode**. This will be introduced later this year and next year.
- This system comprises multiple sets of data. For integration of rural addresses, we look at two types of data:
 - Geographic
 - Postal Routing for Delivery
- These data are represented as a **string of characters for database configuration** and also as a **barcode for automated sorting and routing**.
- This accommodates the three main types of delivery addresses: **Urban Street** addresses, **PO Boxes** and **Rural Street** addresses.
Example:

New Postal Addressing System: Rural Addresses Example

POSTAL ROUTING:
Mail Centre
Transport Route
Office (Depot)
Walk

GEOGRAPHIC:
Province
Municipality
Main Place
Sub Place
Street/Section name
Delivery Pt. ID



ZA T 12 03 17 2 15 03 005 010203 X 123 4
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5

Andre Mbeki
010203 Feni Village
Peddie
5640

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The Way Forward: Completing the Work

- Rural address allocation has been completed for large portions of the country. This includes Location details (registering villages within areas, identifying sections and dwellings in villages), Client details (head of each dwelling, contact details) and Postal details (Post Office, Route, Postcode). **This is sufficient for addressing purposes.**
- There are some areas which we have not yet done.
- In some areas, we have allocated addresses, but we have not yet captured GIS data co-ordinates data. This is often due to logistical constraints, equipment availability and skilled resources limitations.
- It is anticipated that national and local government and quasi-government organizations will participate in such co-operative agreements to complete the work.
- **We invite cooperation to work together in getting this completed.**

The Way Forward: Using the System and Data

Regarding access to the system and the data and using the system:

- **In principle, we believe that our rural addressing data should be available to all of South Africa.**
- Another consideration is that this project has cost a significant amount of money and thus has significant value. We would like to recover some of these development costs.
- We find that different organizations have different requirements:

The Way Forward: Using the System and Data

- **Different requirements for different organizations:**
 - **Some organizations need to access and use the Rural Addressing System** and need to be able to configure their addressing systems to write and read rural addresses. The principle of “available to all” applies here.
 - **Some organizations, including commercial ones, require data for specific purposes** for which they add value in specific ways. For much of this, there would be a moderate cost. Cooperative work would help off-set this.
 - **Some organizations require fine details of all data, even including individuals**, for their respective purposes. Examples are Census and for Electoral requirements. Due to the extensive amount of work required, we are offering such detailed data at a price. Most such organizations have indicated that they are prepared to share significant portions of the overall project costs.
- **Thus we have invited all interested parties to approach us individually to discuss specific interests.**

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Address Expansion: Rural Addressing

Contacts:

Rural Address Expansion

Keletso Kgope

012 401 7368

072 506 2559

Keletso.Kgope@postoffice.co.za

New Postal Addressing and Postcode

Pierre Rossouw

012 401 7465

082 412 1088

Pierre.Rossouw@postoffice.co.za

**Mail Business
SA Post Office
PO Box 10 000
Pretoria
0001**

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