Mobile cellular communications in the Southern African region: Universal access considerations

Michael Minges, ITU
minges@itu.int

The views expressed are those of the author and may not necessarily reflect the opinions of the ITU or its Members.

Workshop on Telecommunication Reform
Gaborone, Botswana 3-5 May 1999

Topics

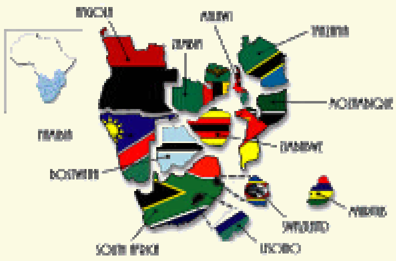
- ✓ Mobile cellular trends in Southern Africa region
- ✓ Regulatory issues related to mobile cellular

2

Mobile cellular in the SADC region

- ✓ Status
- ✓ Growth
- ✓ Substitution
- ✓ Strategic investment
- ✓ Pre-paid
- ✓ Roaming

Southern African Development Community



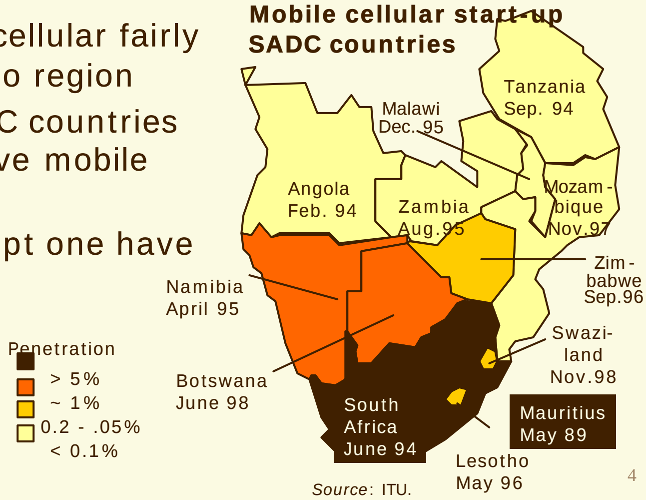
Source: RTR (http://rtr.worldweb.net).

3

SADC Mobile Cellular Status

- ✓ Mobile cellular fairly recent to region
- ✓ All SADC countries now have mobile cellular
- ✓ All except one have GSM

Mobile cellular start-up SADC countries

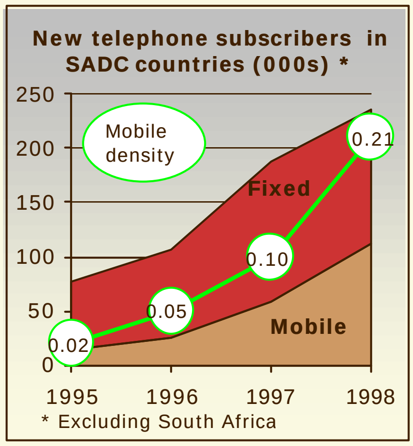


Source: ITU.

4

Mobile growth

- ✓ Over 100% growth (excluding South Africa)
- ✓ Almost as many new mobile as fixed subscribers in 1998
- ✓ Penetration doubling every year



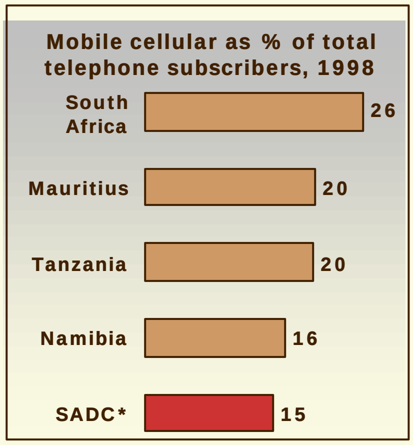
Source: ITU.

5

Workshop on Telecom Sector Reform, Botswana, May '99

Substitution

- ✓ Mobile cellular quick to implement; less prone to vandalism
- ✓ Low connection fee (compared to fixed); generally little wait for service
- ✓ Mobile functionality advantages



** Excluding South Africa.*
Source: ITU.

6

Strategic foreign investors

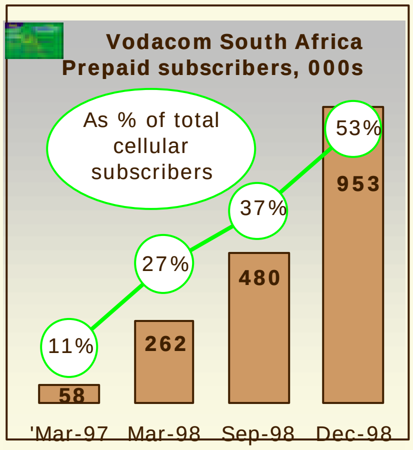
Country	Mobile Operator	Foreign Investor	Stake
Botswana	Vista	France Télécom	51%
Botswana	Mascom	Portugal Telecom	49%
Lesotho	VCL	Vodacom (South Africa)	51%
Malawi	TNM	Telekom Malaysia	60%
Mauritius	Emtel	Millicom (Luxembourg)	50%
Mozambique	TMM	Deutsche Telekom	26%
Namibia	MTC	Telia (Sweden)	26%
South Africa	Vodacom	Vodafone	32%
Swaziland	Swazi MTN	MTN (South Africa)	31%
Tanzania	MIC	Millicom (Luxembourg)	57%
Tanzania	TriTel	TRI (Malaysia)	60%
Zambia	Zamcell	Telecel (USA)	70%
Zimbabwe	Telecel	Telecel (USA)	40%

Source: ITU.

Workshop on Telecom Sector Reform, Botswana, May '99

Prepaid

- ✓ Provides access to those who might not normally qualify
- ✓ Accounts for majority of new subscriptions in many networks around the world



Source: Vodafone.

Roaming

- ✓ Extra revenue source
- ✓ Can help spur regional integration
- ✓ Not yet widely implemented

"*For countries like Lesotho, roaming makes up much of the total revenue*"
—Vodacom

GSM Roaming in SADC

	LS	MZ	MU	NM	TZ	ZA	ZW	TOTAL SADC	TOTAL World
Lesotho								1	
Mozambique								2	6
Mauritius								2	33
Namibia								2	20
Tanzania								1	4
S. Africa								6	69
Zimbabwe								1	9

Source : ITU adapted from GSM MoU.

9

Workshop on Telecom Sector Reform, Botswana, May '99

Regulatory issues for mobile cellular

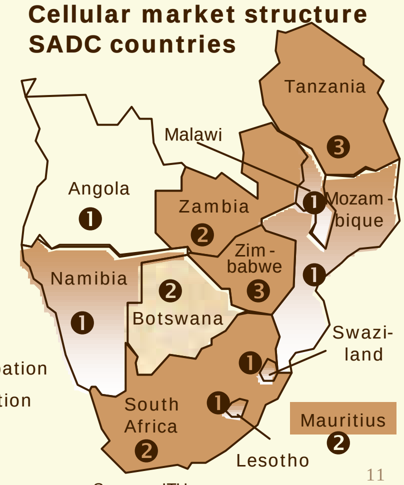
- ✓ Market structure
- ✓ Licensing
- ✓ Universal access obligations
- ✓ Pricing
- ✓ Consumer issues

10

Market participants & competition

- ✓ Private sector participation
  - All SADC countries except one
- ✓ Competition
  - 6 SADC countries

Cellular market structure SADC countries



- ☐ 100% state-owned
- ☐ Fixed PTO+private investors
- ■ Competitive with fixed PTO participation
- ☐ Competitive no fixed PTO participation
- ● Number of mobile operators

Source: ITU.

11

Workshop on Telecom Sector Reform, Botswana, May '99

Strive Masiyiwa: Cellular folk hero

- ✓ Fought 4 years for cellular license in Zimbabwe
- ✓ Finally launched ECONET in June 1998
- ✓ Part-owner of new Botswana cellular network

> *"We aim to provide telecommunications to all the peoples of Zimbabwe"*

12

Mobile cellular licenses

- ✓ How many
  - How many operators can market bear?
- ✓ How long
  - Time period of license
- ✓ How much
  - License fees will be passed on to consumers
- ✓ How about
  - Coverage obligations
  - Technology
  - Scope

“[License fee] is small because we wish to lower the cost of entry, so as to facilitate affordable tariffs” —SATRA

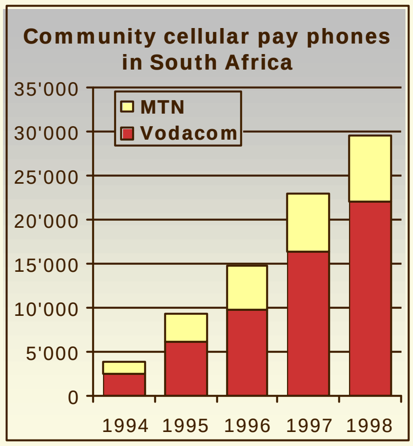
Workshop on Telecom Sector Reform, Botswana, May ‘99

Universal access obligations: coverage

- ✓ Outside of South Africa, coverage typically limited to major towns
- ✓ Licenses should be linked to population and territorial coverage targets
- ✓ Global mobile satellites may help

Universal access obligations: payphones

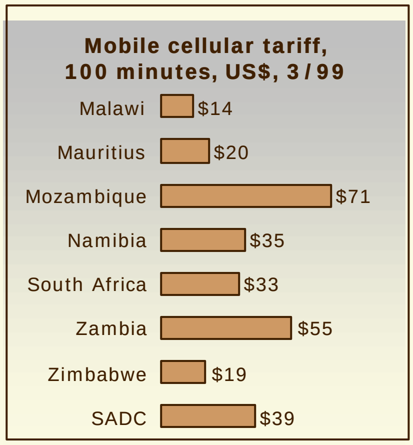
- SADC mobile operators have had few if any universal access obligations
- Exception is South Africa where they had to install 30'000 cellular payphones in 5 years



Source: ITU adapted from Vodacom, MTN.

Tariffs

- Still high relative to fixed and compared to other regions
- Significant regional variation
- Biggest barrier to mobile access
- Reasons why
  - "High retention"
  - Interconnect charges
  - Handset & service provider subsidies



Source: ITU adapted from published operator tariffs.

Workshop on Telecom Sector Reform, Botswana, May '99

Tariffs & competition

- ✓ Competition can help to lower tariffs

Business Tariff

Monthly Subscription		~~$450~~ 430
Call Charges per minute		
Local and National Calls	Peak	~~$4.20~~ 3.80
	Off Peak	~~$3.70~~ 3.20
	Leisure	~~$3.70~~ 2.20
International Calls	Peak	~~$3.50~~ 2.80 + PTC
	Off Peak	~~$3.00~~ 2.00 + PTC
	Leisure	~~$3.00~~ 1.50 + PTC
Net*One to Net*One Calls	Peak	~~$3.50~~ 2.80
	Off Peak	~~$3.00~~ 2.00
	Leisure	~~$3.00~~ 1.50

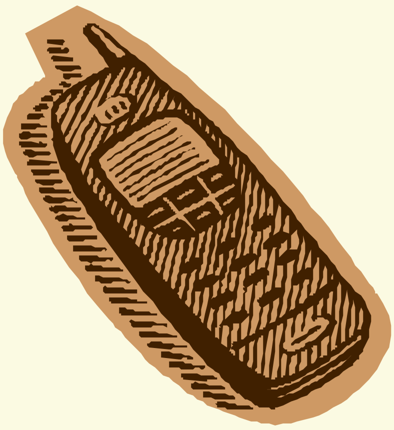
Source: Net*ONE (Zimbabwe).

17

Workshop on Telecom Sector Reform, Botswana, May '99

Handsets

- ✓ Factors affecting handset prices:
  - Custom duties
  - Distribution policy
  - Subsidies
- ✓ Minimum prices range from zero (bundled with subscription package) to US$ 400

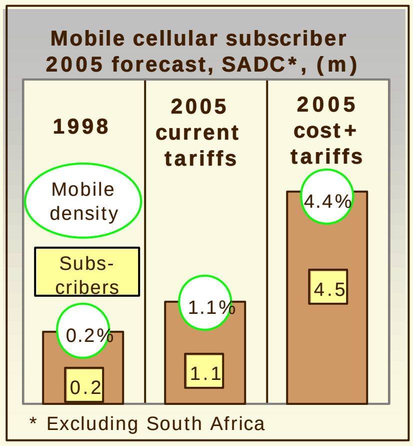


18

Workshop on Telecom Sector Reform, Botswana, May '99

Affordability

- With current tariffs, mobile subscriber penetration in SADC (excluding South Africa) will rise over next 5 years to around 1%
- With best practice tariffs, mobile density can rise to 4.4%



Source: ITU.

19

Workshop on Telecom Sector Reform, Botswana, May '99

Other consumer issues

- Calling Party Pays
- Mobile Number Portability
- Quality of Service

© MACH

20

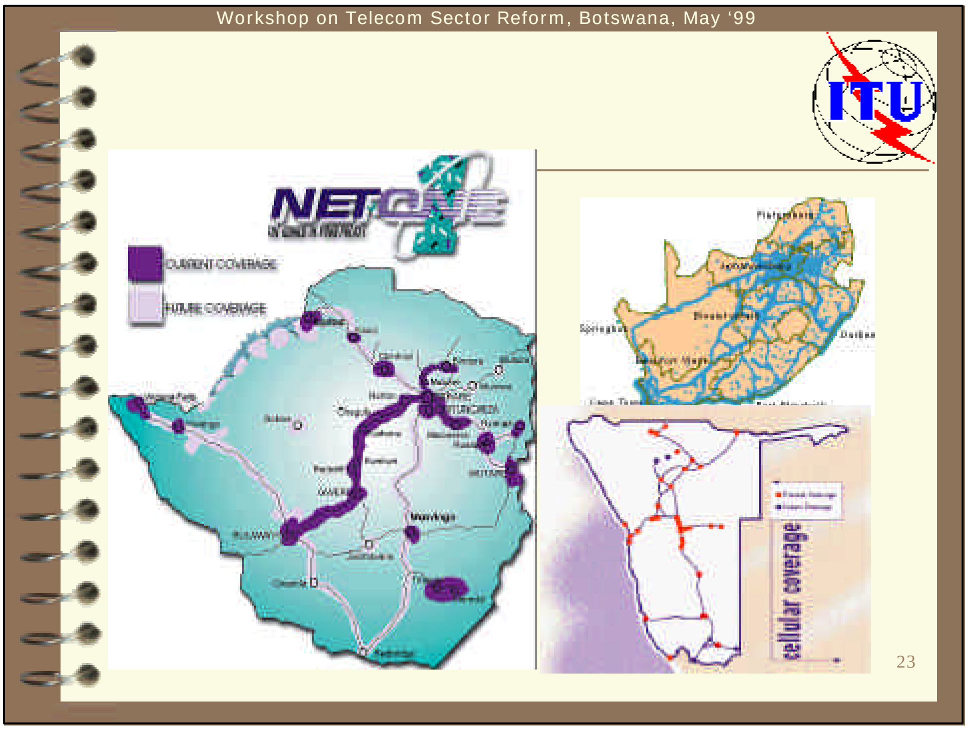
Conclusions


© ITU / A. de Ferron

- ✓ Mobile cellular enhances access to communications
- ✓ Must not be viewed as service for privileged
- ✓ Requires regulatory encouragement to extend access to all

21

"Mobile will substitute for fixed telephony as the primary form for personal communications"
—Vodafone


Workshop on Telecom Sector Reform, Botswana, May '99
ITU
NETONE
CURRENT COVERAGE
FUTURE COVERAGE
cellular coverage
23