

# Rural Communications Funds: Success factors world-wide and practical insights from Uganda

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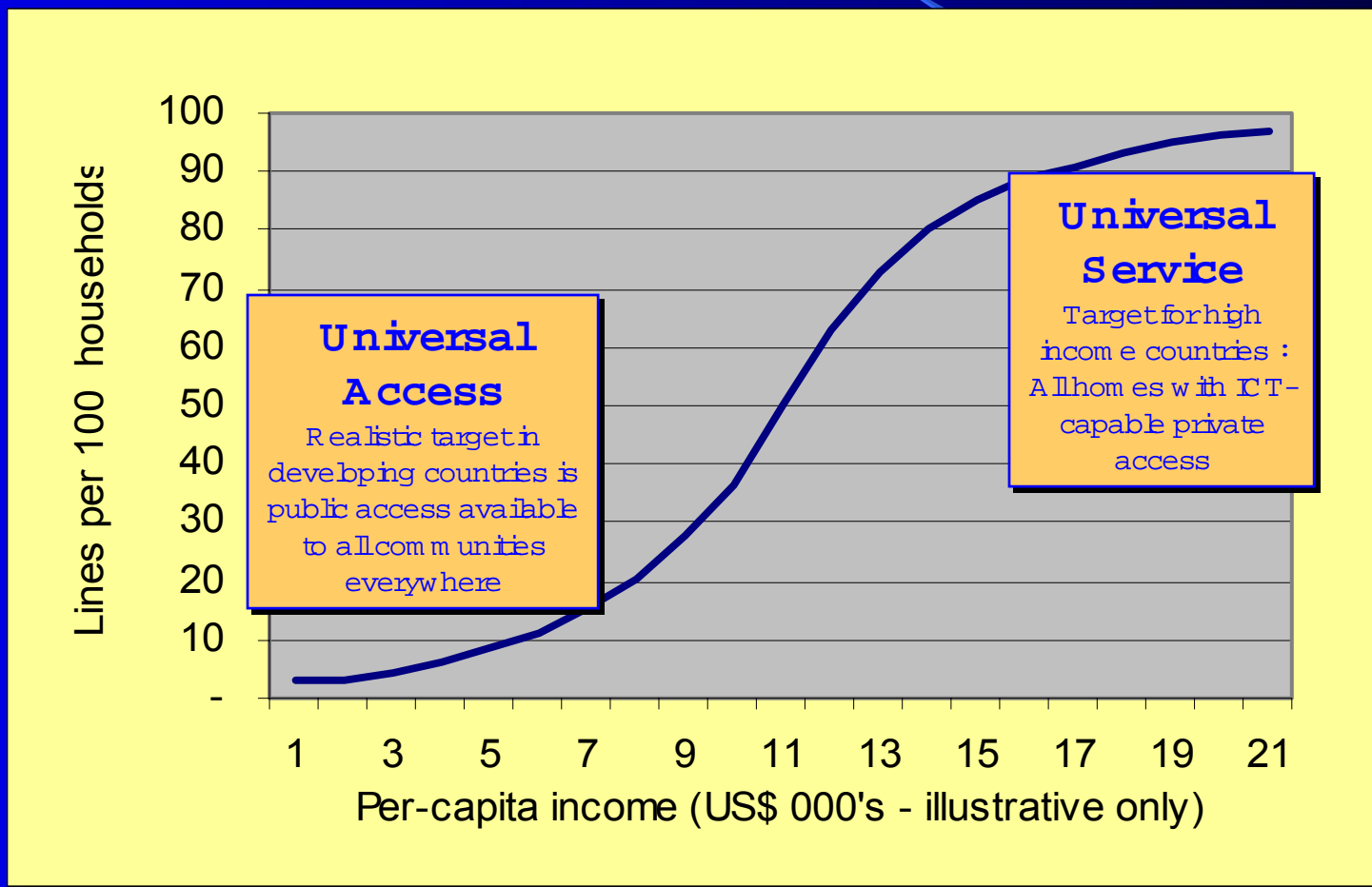
# Three messages

- ① Funding is only part of the rural telecom & ICT issue
  - ⇒ Subsidies are no panacea
  - ⇒ Regulatory & licensing environment is key
- ② Don't throw money at ICTs
  - ⇒ Look for sustainable models
  - ⇒ Government leadership in e-Government & education comes first
- ③ Learn from the experience of mobile
  - ⇒ Liberalisation & market motivation can achieve results
  - ⇒ Low prices aren't everything
  - ⇒ Illustrates the needs of the US /NA market

# Fundamentals

- ◆ Universal Access (UA) & Universal Service (US)
- ◆ Understand the market and access gaps
- ◆ Universal Access Funds (UAFs) & rural communications funds

# UA and US definitions



# Universal access is .....

- ◆ *strategic policy to meet minimum needs* for low income areas
  - ⇒ public access and some demand for private service
- ◆ *enabling operators* who wish to serve challenging areas and people groups to do so commercially, so that service will be good quality & market responsive
  - ⇒ economic benefits only come from services that work and sustain themselves
- ◆ *blending incentives with obligations* in regional and rural license formulation
  - ⇒ the old order of monopoly obligations must be completely replaced

# Issues today

- ◆ UA is achieved through a combination of market/regulatory measures *and* a funding mechanism
- ◆ Regarding markets & regulation
  - ⇒ What is the limit of the marketplace?
  - ⇒ How to get there and enable operators to service poor and rural areas successfully and viably?
- ◆ Regarding subsidies
  - ⇒ How to minimise the subsidies & use resources efficiently
  - ⇒ How to leverage private investment
  - ⇒ How to simplify the process
  - ⇒ How to make them 'smart' - i.e. to kick-start and kick-off, not create subsidy dependency.

# Dimensions of the UA issue

Targets and policies have two dimensions

## ◆ Two *dimensions* of the digital divide

⇒ relative poverty (both urban and rural)

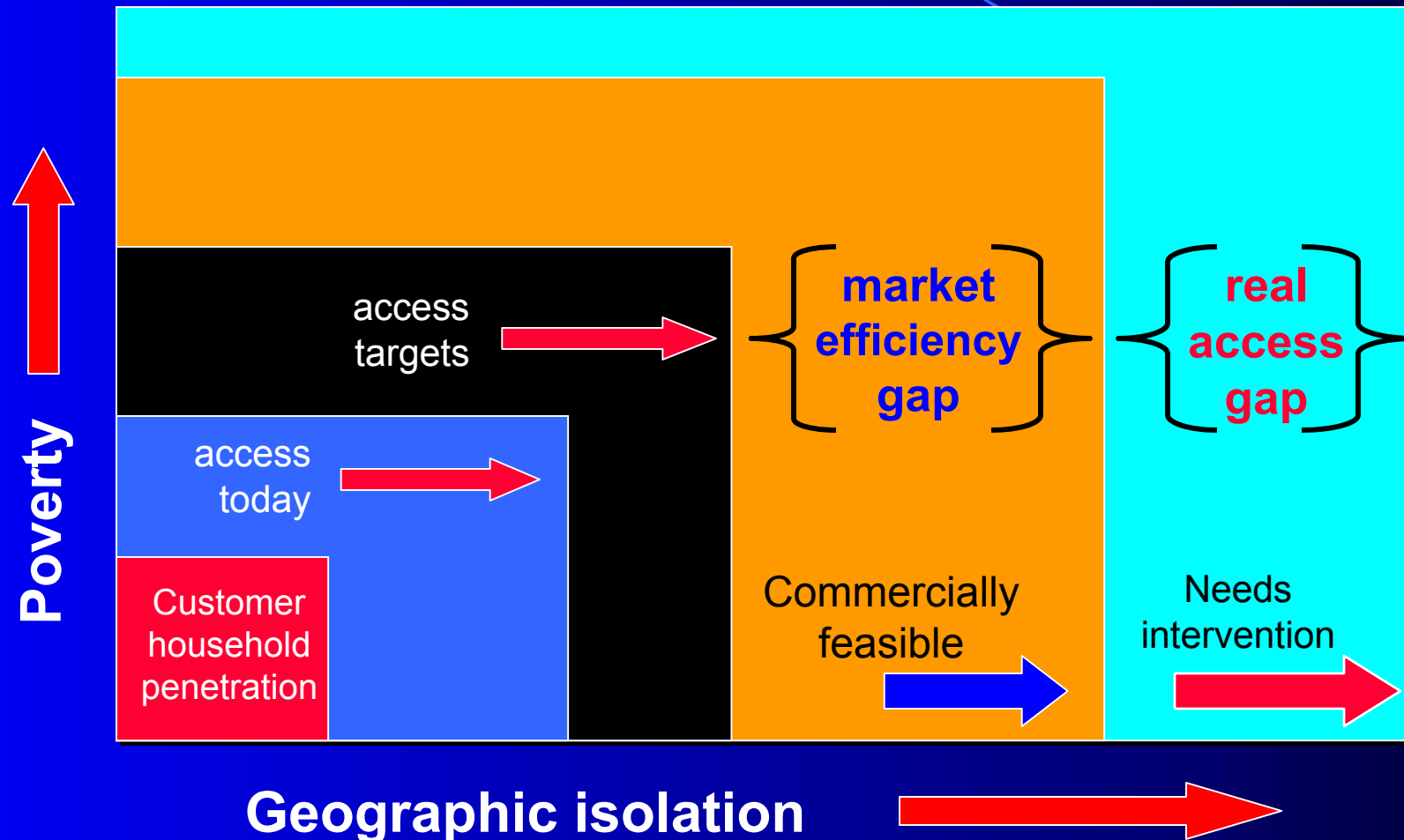
⇒ relative isolation (rural only)

## ◆ Two *gaps* & two types of policy solution

⇒ the *market efficiency* gap

⇒ the *access* gap

# The "two gaps" model



# Market efficiency gap

- ◆ The gap between what an imperfect market achieves in terms of reach and what a well liberalised market would achieve
- ◆ Features of an efficient market operating under liberalised conditions, with barriers to entry removed
  - ⇒ privatised incumbent plus private sector competition for rural areas
  - ⇒ *level playing field* for all participants & technologies
  - ⇒ *fair & cost-based interconnection* & market based tariffs
- ◆ Actual market reach different for each country
  - ⇒ some countries more challenging geographically & economically, but
  - ⇒ all people can afford and are willing to pay (e.g. 2% of their income), and
  - ⇒ most rural services have higher demand from urban areas

# Addressing the market efficiency gap

## *Interconnection* is one key

- ◆ Open and fair
- ◆ *D irecte*d by regulator, not left to incumbent
- ◆ Cost-based network access charges (call termination fees) for rural operators
- ◆ A lready exists in fixed-m obile interconnection
- ◆ Two methods of payment
  - ⇒ Organised revenue pool ✗ (too complex)
  - ⇒ Caller pays higher tariff to call rural areas ✓ (much simpler)

# Assymmetric interconnection in play

Chile access charge rates (US cents per minute)

<i>Company</i>	<i>Localities</i>	<i>Peak</i>	<i>Off-peak</i>
CTC-national	All	1.0	0.2
CNT-regional	Cities	1.5-2.4	0.3-0.4
	Towns	3.1	0.4
	Rural areas	7.2	1.2
<b>Rural operator</b>	<b>All</b>	<b>18.7</b>	<b>9.3</b>
Mobile operators	All	21.1	14.8

Source: Tariff decree of 1999 and CTR data for July 2001  
Colombia and Peru coming onstream



# Advantages of asymmetric interconnection

- ◆ greater viability for rural operators
- ◆ rural development supported by urban to rural calls
- ◆ affordability of urban 'relatives' is higher
- ◆ potential to develop incoming call termination market
  - ⇒ operators will be able to make majority of revenues from incoming calls
  - ⇒ develop messaging
  - ⇒ payphone retailer share to incentivise use of phone for incoming calls
- ◆ reduction of both the market efficiency and access gaps
- ◆ reduced need for subsidies

# The real access gap

- ✦ People, communities and areas that cannot be reached by the market without intervention by government/regulator
- ✦ Services that cannot be supplied without intervention
- ✦ Needs special strategy, finance and incentive
  - ⇒ universal access fund (UAF) or rural telecom development fund
  - ⇒ other forms of subsidy or incentive

# What is a Universal Access Fund or a Rural Communications Development Fund?

## ◆ Objective and basic philosophy

- ⇒ Tool of a liberalised market for closing the *real access gap* – reaching beyond the market
- ⇒ Provides a 'smart subsidy/incentive' to operators willing to take on the challenges of the rural market

## ◆ Typical targets

- ⇒ One or two payphones per locality in unserved small population centres
- ⇒ some ICT targets

## ◆ Management & administration

- ⇒ Usually by an independent board under the regulator
- ⇒ Representatives of industry, consumers, financial sector
- ⇒ Separate accounting, bank account, reporting, transparency etc.

# Universal Access Funds

## Source & distribution of funds

### ◆ Sources

- ⇒ Government budget
- ⇒ License fees
- ⇒ Spectrum auctions
- ⇒ 1-2% Operator levy \*

### ◆ Distribution mechanism

- ⇒ Reverse auction / tender process to select rural licensees, distribute funds, and minimize the amount of subsidy
- ⇒ Fund calculates the maximum subsidy on offer, but competitive process determines the final amount
- ⇒ One-time grant must bridge the gap from loss to profit-making

# Key results from UAFs

- ◆ Achieved most of Government coverage targets – 20,000 villages served
- ◆ Additional lines – 40,000 actually implemented
- ◆ Approx. 10 rural operators licensed
- ◆ Actual subsidies much less than offered (av. <50% )
- ◆ Lowered the cost and increased the quality of service provision
- ◆ Leveraged much more private investment than the subsidies given (20:1 in one country)

# Fund experience to date

Country	Source of Finance	Period	Localities served	Max subsidy available (US\$M)	Subsidy given (US\$M)	Subsidy per locality
Chile	Government budget	1995-97	4,504	24.2	10.2	2,256
		1998-99	1,412	14.4	9.8	6,919
		2000	143	1.9	1.8	12,727
Peru	1% Operator levy	1998	213	4.0	1.7	18,800
		1999	1,937	50.0	11.0	5,700
		2000 (1)	2,290	59.5	27.8	12,100
Colombia	Operator levy & Gov't contribution	1999	6,865	70.6	31.8	4,600
Guatemala	Spectrum auctions	1998	202	N/A	1.5	7,587
		1999 (2)	1,051	N/A	4.5	4,282
Dom. Rep.	2% Operator levy	2001	500	3.8	3.4	6,800

# Reasons for success

- ◆ Well-designed competitive mechanisms
  - ⇒ mechanism now well understood & available
- ◆ Multiple licensing, attractive licenses, one-stop shop for licensing & radio frequencies
  - ⇒ new entrants have a clear-cut way into the market
- ◆ Supplier interest to gain markets
  - ⇒ most successful bidders associated with suppliers
- ◆ Market & demand data preparation
- ◆ Regulatory support
  - ⇒ tariff flexibility - "better at cost than no service at all"
  - ⇒ asymmetric interconnect - Chile, Colombia, Peru

# The key lessons

## How to make UAF subsidies 'smart'

- ◆ Take strategic interests of operators into account in the license packaging
- ◆ Have attractive licenses and real possibilities for national status
- ◆ Regulatory design must address both the *market efficiency gap* and the *access gap*
  - ⇒ tariff freedom & cost-based interconnection
  - ⇒ efficiency will reduce the need for subsidy
- ◆ Do a needs/demand study and have clear targets

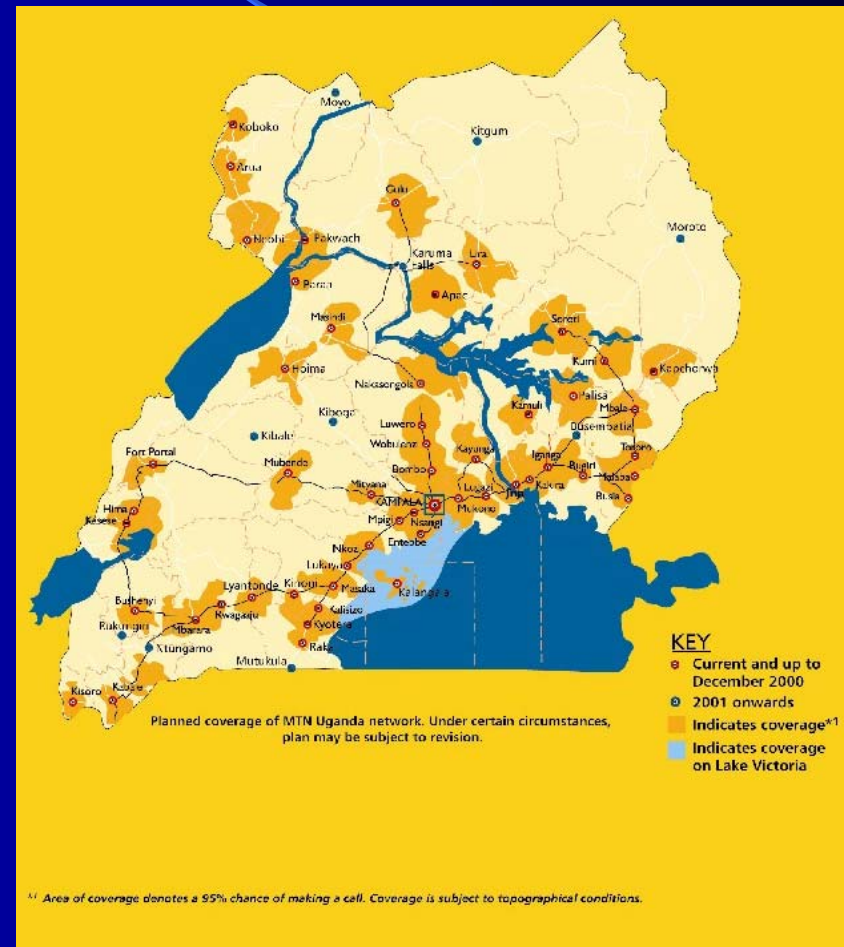
# Why is mobile important?

- ◆ Now the predominant network in many countries, and in most (71%) African countries
- ◆ Illustrates how players in a competitive market can close the *market efficiency gap*
- ◆ More accessible where coverage exists and even lower priced for minimum service level
- ◆ Pre-paid pricing feature "meets" US/JA needs
  - ⇒ Reaching customers not reached by fixed service
- ◆ Lowest cost telephony solution for many areas, and
- ◆ Good potential for low cost ICT solutions

# Leveraging mobile coverage

## MTN's recent network reach (Uganda)

- ◆ MTN present with mobile service in approx. 290 sub-counties (330 by mid 2001)
- ◆ MTN has the potential to serve about 600-700 sub-counties (Out of 800+) with fixed payphone service by Mid 2002
- ◆ Of these, 200+ served with rural fixed package solutions
- ◆ 150 sub-counties have little chance of being covered by 2003 *These are the real access gap.*



# Expanding the UAF envelope

## ICT activities & investments

- ◆ Some Funds now actively promoting ICT development
  - ⇒ Chile Fund supports schoolnets
  - ⇒ FTEL Peru promoting telecentres
  - ⇒ Colombia contract for 00's small commercial telecentres
  - ⇒ USF / Universal Service Agency (S. Africa) - 90 telecentres
- ◆ Important not to distort an emerging market & create dependency
- ◆ Government & funding should focus on stimulating demand, not creating useless & over-priced access projects

# ICT - getting the balance right

- 1 Remove regulatory barriers to Internet & ICTs
- 2 Put public services online (E-Gov't, health, education)
- 3 Secure points-of-presence or local access in every district
- 4 Support schools connectivity but also leverage for public access and adult ICT literacy
- 5 Smart subsidies' for small-scale telecentre start-ups
- 6 Develop & promote guidelines to improve prospects for commercial ICT businesses

# Ugandan UAF experience

## Rural Communications Development Fund (RCDF)

- ◆ Established through the Communications Law as a responsibility of the Regulator
- ◆ Covers and serves the whole sector – post & courier, fixed & mobile telecoms, & Internet
- ◆ Source of funds is 1% levy on all players
- ◆ Addresses rural UA needs for all documentary and electronic service delivery in rural areas
  - ⇒ pay telephones & 'rural packages'
  - ⇒ ISP POPs
  - ⇒ Vanguard' schoolbased telecentres
  - ⇒ post/telecentre integration

# Ugandan process for establishing a UAF Rural Communications Development Fund (RCDF)

## ◆ Integrated UA Policy formulation

- ⇒ Sector review
- ⇒ Rural needs & demand study
- ⇒ Stakeholder consultation
- ⇒ Development of UA targets

## ◆ RCDF Mission, objectives and targets

- ⇒ Assess resources & develop realistic long term program
- ⇒ Develop first phase objectives & project development
- ⇒ Management & operation

## ◆ RCDF Operating Manual

- ⇒ Basic guidelines for management, administration, project development, fund disbursement & monitoring
- ⇒ Relationship to UCC licensing responsibilities

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