

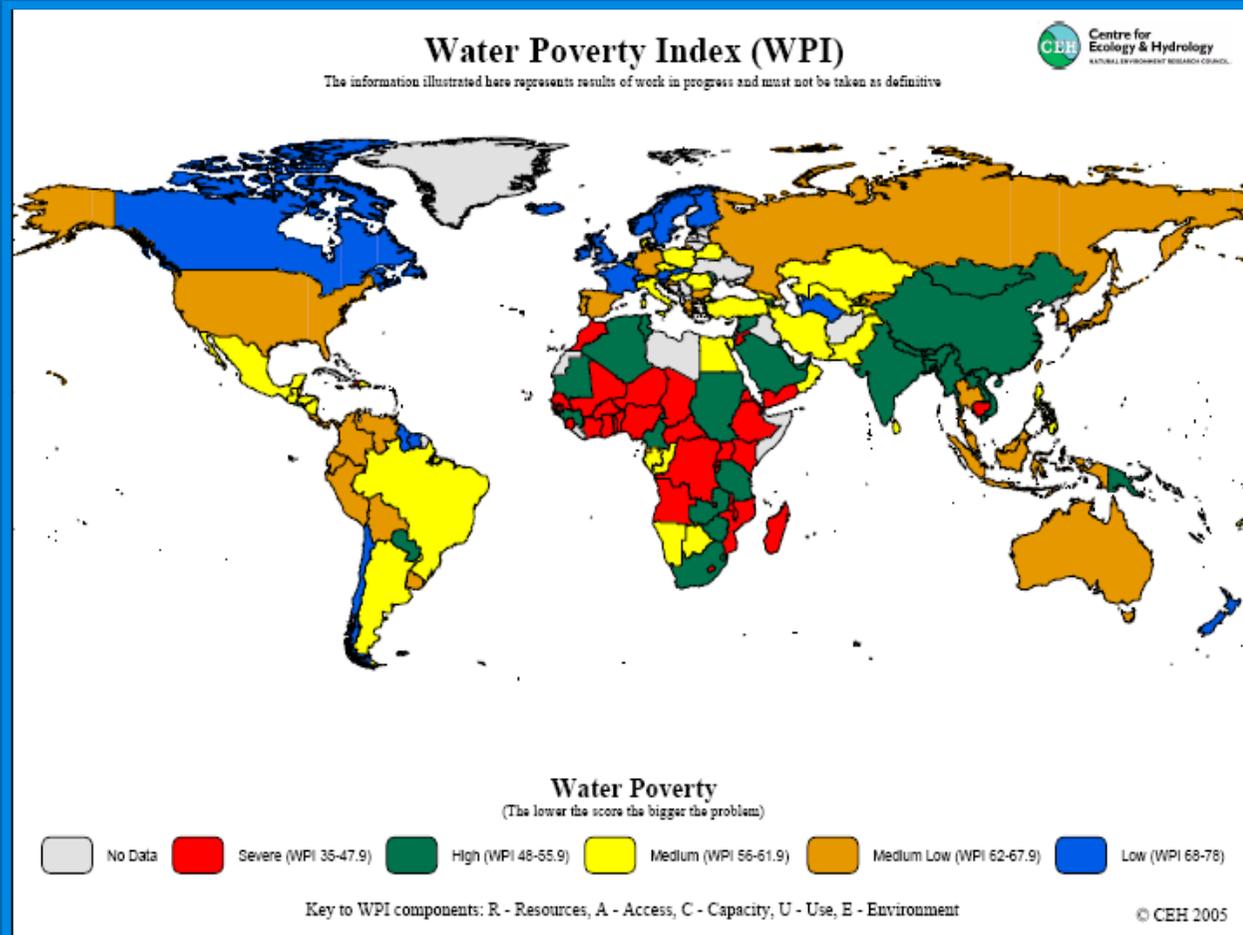
**Water Tribune - Week 3**  
**Water and Society**

# **Water Access in Sub-Saharan Africa** **Challenges and Opportunities**

Presented by:

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**WORLD BANK**

**EXPO Zaragoza - 1 July 2008**



## Sub-Saharan Countries

Population Growth:  
2.5%/year

Urban/Slum Population Growth:  
4.4%/year

This presentation will focus on:

**Access to water in urban and periurban areas in Sub-Saharan African countries**

# Outline

- **Access to water in urban/periurban areas**
  - What is the current situation
  - Aggravating factors
- **Challenges**
  - Extend services at a higher rate than rapidly growing population to reduce access gap
  - Improve management/sustainability of existing water facilities
- **Opportunities**
  - Learn from others – do things differently
  - International aid is focusing on Africa
- **Recommendations**

# Sub-Saharan Africa lags behind other regions in access to water

Region	Improved water source (% of pop with access) 2004	MDG target 2015	Population growth (annual %) 2005	Urbanization growth (annual %) 2005
EAP	78.54	86	0.82	3.1
ECA	91.91	96	0.08	0.2
LAC	90.98	92	1.35	1.9
SA	84.41	86	1.66	2.6
<b>SSA</b>	<b>56.24</b>	<b>75</b>	<b>2.15</b>	<b>3.6</b>
MENA	89.49	95	2	2.5

# Measuring is difficult

- WHO and UNICEF sponsored Joint Monitoring Program (JMP) is considered the official data source of MGD progress on water and sanitation
  - Data is collected from two main sources: assessment questionnaires sent to UNICEF field representatives and household surveys
  - Data received is often difficult to categorize; between improved and unimproved source of water

# Coming up... Africa Infrastructure Country Diagnostic (AICD)



## *What?*

- Series of reports on Public Expenditure, Investment Needs, and Performance in infrastructure in Africa
- Sectors: **Energy, ICT, Irrigation, Transport, and Water and Sanitation**
- 24 SSA countries covered in Phase I

## *Why?*

- Establish a baseline against which future improvements in infrastructure services can be measured
- Provide a more solid empirical foundation for prioritizing investments and designing policy reforms

## *Who?*

- World Bank in coordination with African Development Bank, guidance by New Partnership for Africa's Development (NEPAD)
- Financed by ADF, DFID, PPIAF, European Commission

# Methodology and Project Team

## Sources

- 63 Demographic and Health Surveys (DHSs)
- Multi-Indicator Cluster Surveys (MICS)
- Utility survey conducted across 51 utilities in 24 countries
- Fiscal database based on budget documents

## Sample

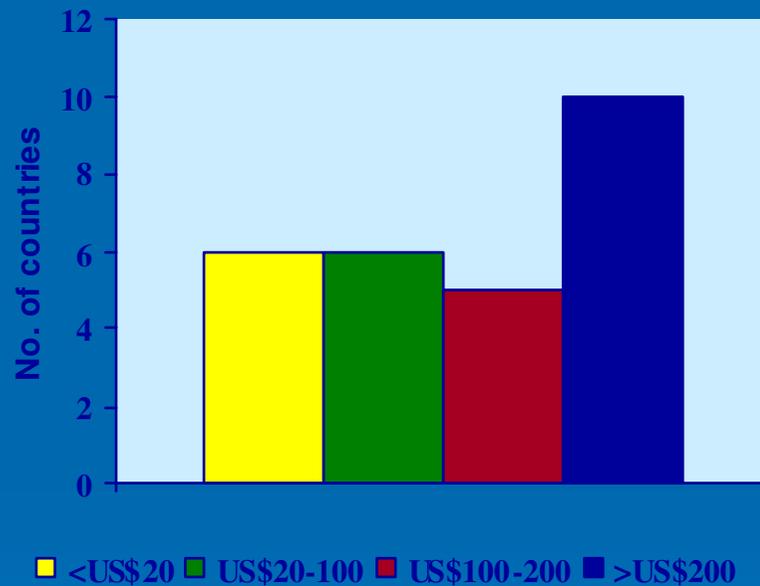
- 30 countries surveyed in current access analysis
- 24 countries surveyed in access trends and expenditure analysis

## WB Project Team

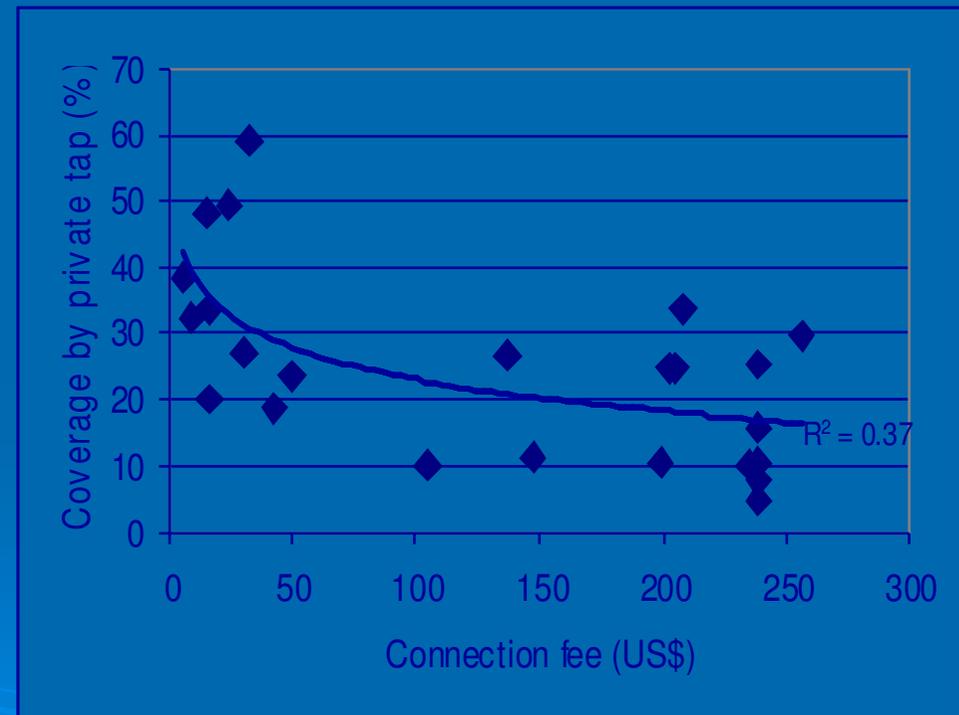
- - Led by Vivien Foster, includes Sudeshna Banerjee, Heather Skilling, Cecilia Briceño-Garmendia, Elvira Morella and Tarik Chfadi

# Source of access in relation to connection charges

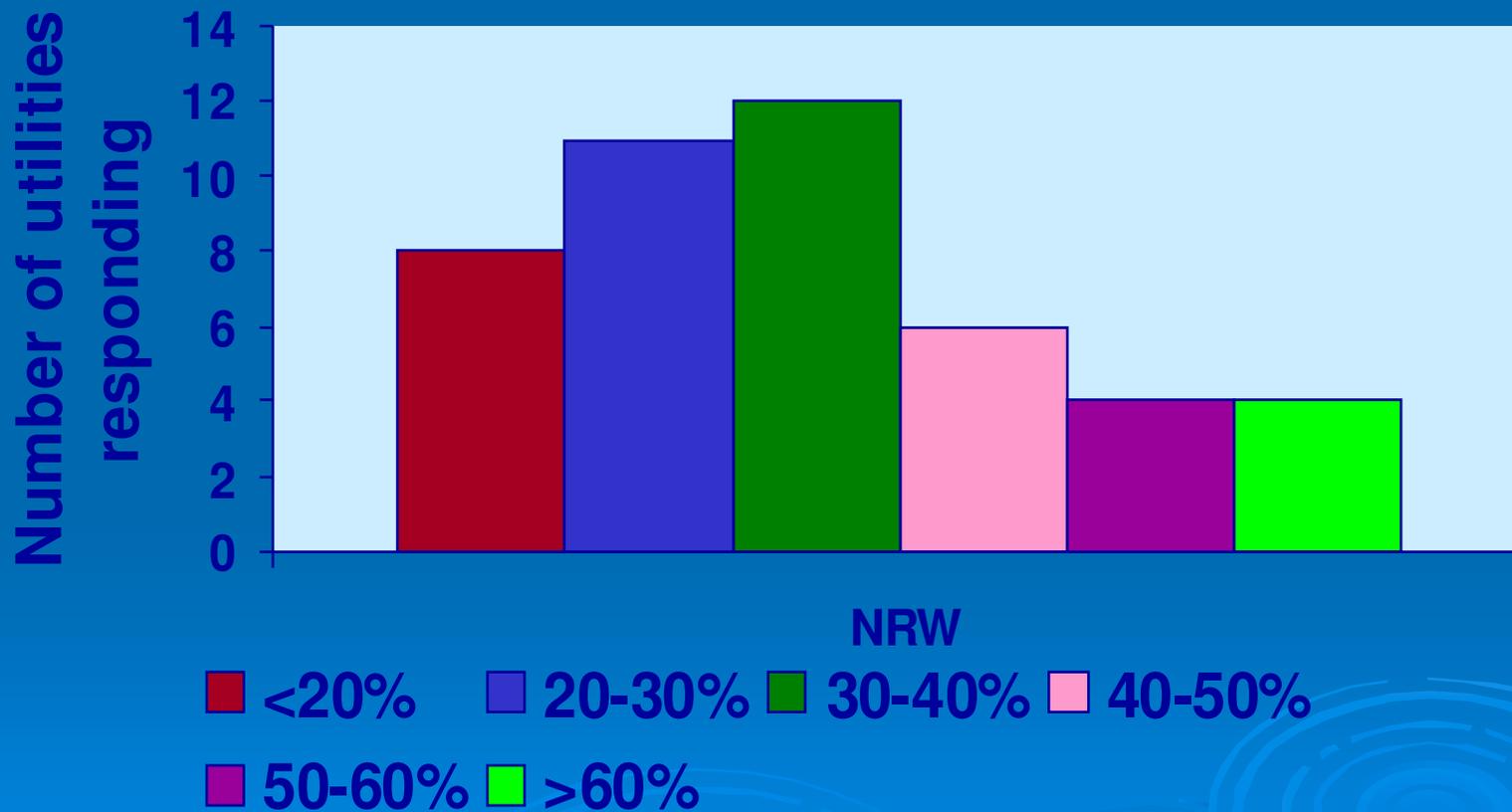
Frequency distribution of connection charges



Coverage against level of connection charge



# Frequency distribution of non-revenue water



# Outline

- **Access to water in urban/periurban areas**
  - What is the current situation
  - How is it measured
- **Challenges to expand water services**
  - Population seems to grow faster than access
  - Management/Sustainability of existing facilities
- **Opportunities**
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# The “perversity” of water

- It's an economic good but it's also a social good and both need to be taken into consideration
- People seems to be more concerned about who provide the services (Public or Private) than how the services are provided and expanded
- There's great concern about increasing tariffs but little interest on the cost of water
- Water requieres LT vision/investments/returns but we live in a short-sighted society
- Most assets are below ground and are hard to evaluate and control.

# Aggravating Factors

- Provision of access to water began thousands of years ago and yet...
- There have been “Water Decades”, “World Water Days”, “International Water Forums”, “the Milenium Development Goals” and yet...
- A significant amount of money has been provided as grants and subsidies and yet...
- High costs in health, education, productivity losses can be associated with lack of access to water and yet...

# Challenges

- Population grows faster than services, especially urban
  - 2.5% annual average population increase
  - 4.4% annual increase in urban and slum areas
- Weak management capacity
- Insufficient funding
- High poverty index – Limited affordability
- Poor governability preclude efficient management of public utilities and absence of private sector participation

# Outline

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# Lessons learned

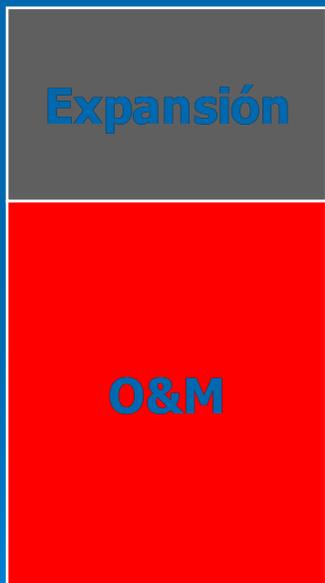
- Correlation between good governance and good services, wether public or private
- Correlation between access to water and socio-economic level
- Subsidies are not reaching the poor, instead they pay 10+ times for water
- Low tariffs prompt “water taxes” that may be paid by poor people w/o access

# Lessons learned (cont'd)

- Entirely public or private management of water utilities has not worked well in general
  - Empirical evidence indicates that public utilities have failed in general to operate and maintain the services, needless to say to expand them
  - The private sector has not solved all of the problems either
  - The social and economic nature of water needs either a public utility that runs as a “private corporation” or a better a publi-private partnership (PPP)

# Situación Inicial – Equilibrio

Año 0



Costos

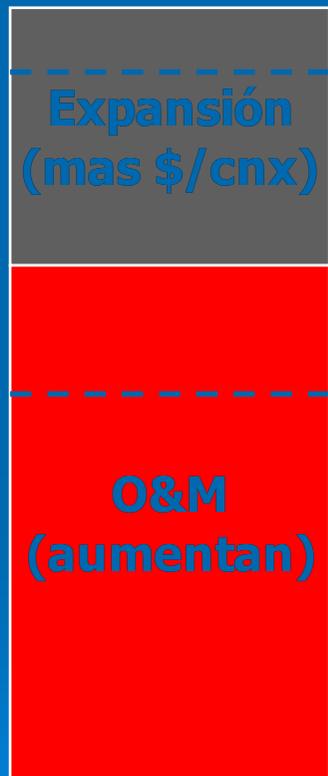
Ingresos = Costos



Ingresos

(subsídios cruzados de "ricos" a "pobres")

# Un poco de tiempo después...

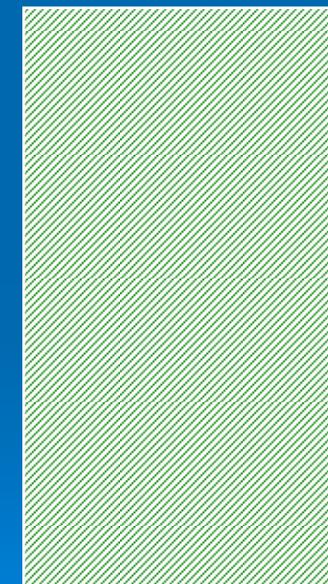
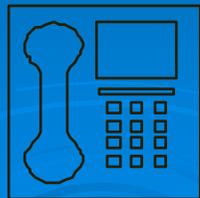


Costos

Año "t<sub>1</sub>"

Ingresos < Costos

Gerente de empresa  
llama a ministro de  
turno --- SOS



Ingresos

# Reequilibrio – Escenario 1 (opt.)



# Reequilibrio – Escenario 2 (+real)



# Otro poco de tiempo después...



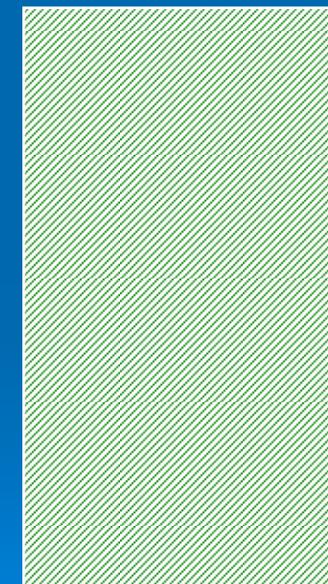
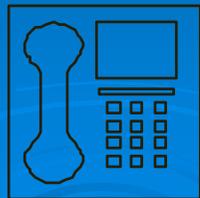
**Costos**

**Año " $t_2 > t_1$ "**

**Desequilibrio**

**Ingresos < Costos**

**Gerente de empresa  
llama a ministro de  
turno --- SOS**

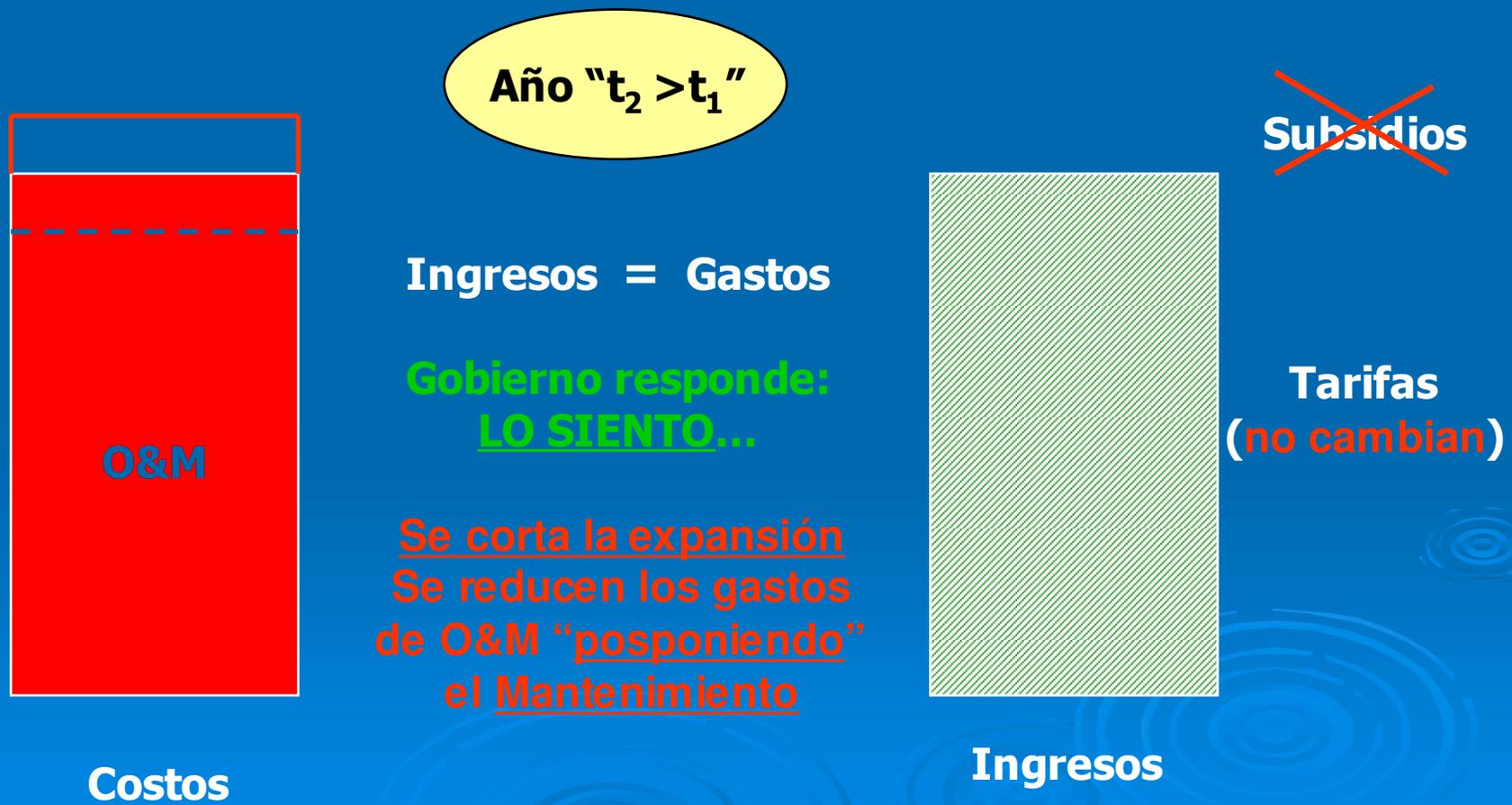


**Ingresos**

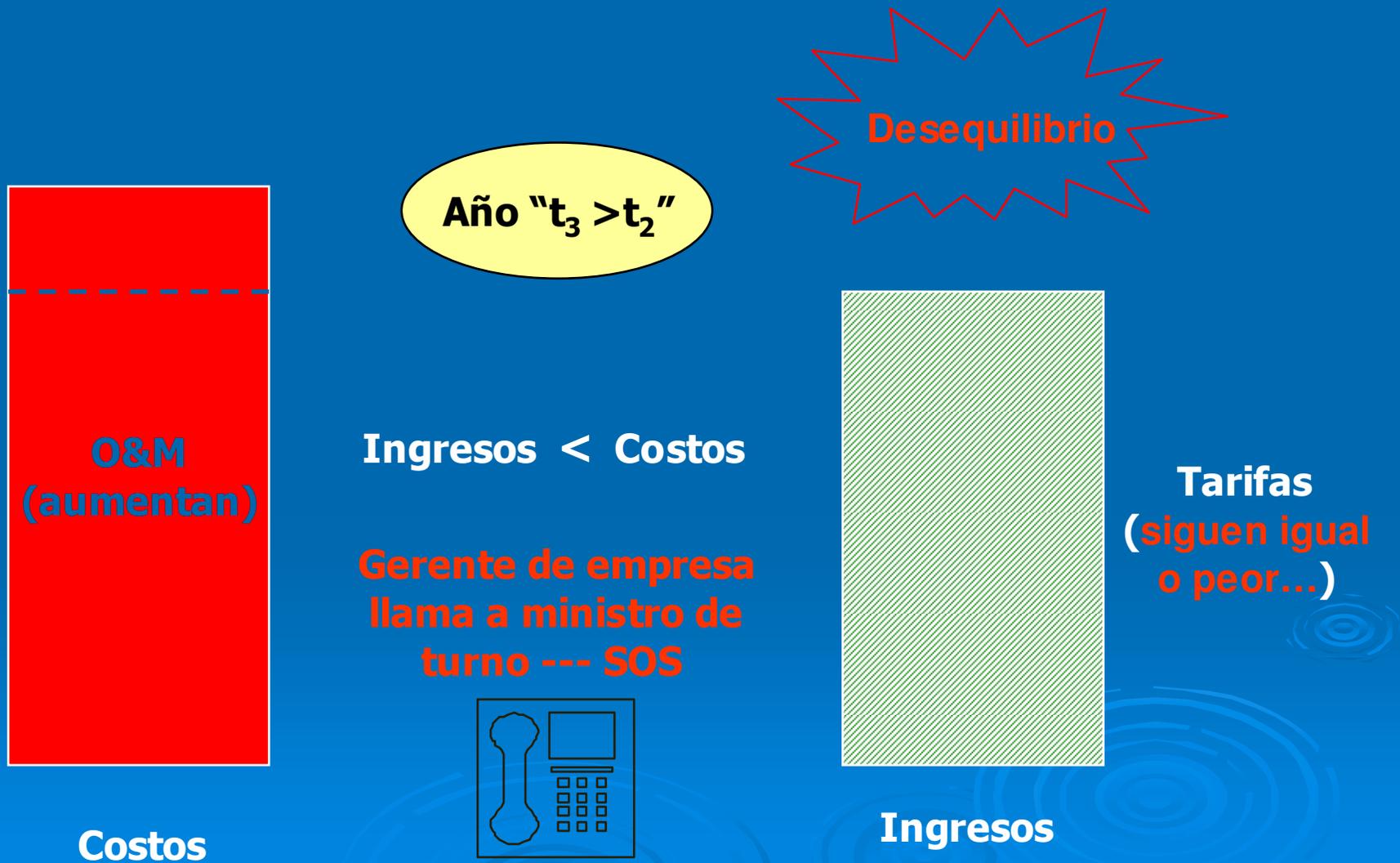
# Reequilibrio – Escenario 3 (- malo)



# Reequilibrio – Escenario 4 (posible)



# Otro poco de tiempo después...



# Reequilibrio – Escenario 5 (probab.)

Año " $t_3 > t_2$ "

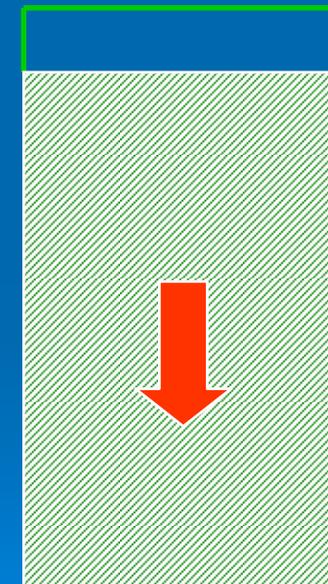


Costos

Ingresos = Gastos

Gobierno responde:  
no tengo para subsidio  
pero autorizo  
"Rebalanceo Tarifario"

Se "pospone mas"  
el Mantenimiento  
Servicios empeoran  
Gente no paga



Ingresos

~~Subsidios~~

Tarifas  
(**Bajan!!!**)

(Parece  
que no se  
tuvo en cuenta  
la elasticidad)

# Lessons learned (cont'd)

- A lower level of service now is much better than a higher level of service “tomorrow...”
  - Let people choose; they don't either need or can afford a “Mercedes”, but a motorcycle could help
  - Access to a low level of service may represent a great improvement at a much lower price
  - The level of service can be improved in the future; e.g. replace standposts with connections
  - Level of service can be soon an issue in developed countries as well for other reasons: How much water do you need to treat at ever increasing standards

# Lessons learned (cont'd)

## ➤ Water is a “Political Good”

- Level of water tariffs is a political decision; don't try to ring-fence tariffs from politicians but rather inform people about choices made
- Low tariffs can be extremely unfair to the poor who may end up paying “water taxes” in addition to the premium paid to water vendors
- Tariff hearings are held with people who have service; nobody wants to pay more, especially if the service is deficient and even less to extend it to other people

# Lessons learned (cont'd)

- People in Africa value very much the cost of transporting water
  - Empirical evidence shows that willingness to pay is very high in spite of being very poor
  - Poor people without access to water pay usually 10 but occasionally up to 1,000 times the tariff per m<sup>3</sup> paid by people served with house connections
  - How can they afford it? They buy in small amounts and pay on a daily or per bucket basis
  - At the end of the month they pay more than regular customers not only in relative terms but often in absolute terms for a much inferior service

# Lessons learned (cont'd)

- Deficient water utility management not only can induce hidden costs but also affect health
  - Intermittent services – frequent in Africa and elsewhere – requires significant investments in residential storage tanks seldom cleaned
  - Illegal connections not only affects the financial health of the utility by increasing commercial losses but also are a point of entry of contamination to the system
  - People often install “sucking” pumps due to low pressure which in addition to hydraulic interference, create a vacuum that may introduce contamination

# Maximize impact of investments

- Record aid is available but will be results based; hence opportunity to do the things well and in addition get more funds
- Looking at the total cost recovery by informal private sector, utilities should do much better on internal cash generation
- Potential for more partnerships between public utilities and local, regional and int'l private and pseudo-public utilities

# Recommendations

- Improve management of water utilities
  - Bad services and inefficient costs cannot be accepted
- Work more with the Ministry of Finance
  - Public Expenditure Reviews are key instruments
- Use lower levels of service to reach the poor
  - Don't wait for the "Mercedes"; get a motorcycle now!
- Educate people about "water taxes" paid
  - People may prefer tariffs if they knew the options
- Inform people in an understandable way
  - Local press, NGOs and World Bank could/should help
- Empower people, especially the poor
  - More social accountability is needed – take advantage of actual and increasing communication capacity