

# Information and Communication Technologies & the Millennium Development Goals



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*Views expressed are those of the author and may not necessarily reflect the opinions of the ITU or its Members*





# ICTs & MDGs

- **ICTs** are part of the **MDGs**  
(Goal 8, Target 18, Indicators 47-48)
- **ICTs** have an impact on achieving other **MDGs**
- **ICTs** can be bad for **MDGs**
- **MDGs** have an impact on use of **ICTs**



# Goal 8: Develop a global partnership for development



## Target 18

“In cooperation with the private sector make available the benefits of new technologies, specifically information and communications.”



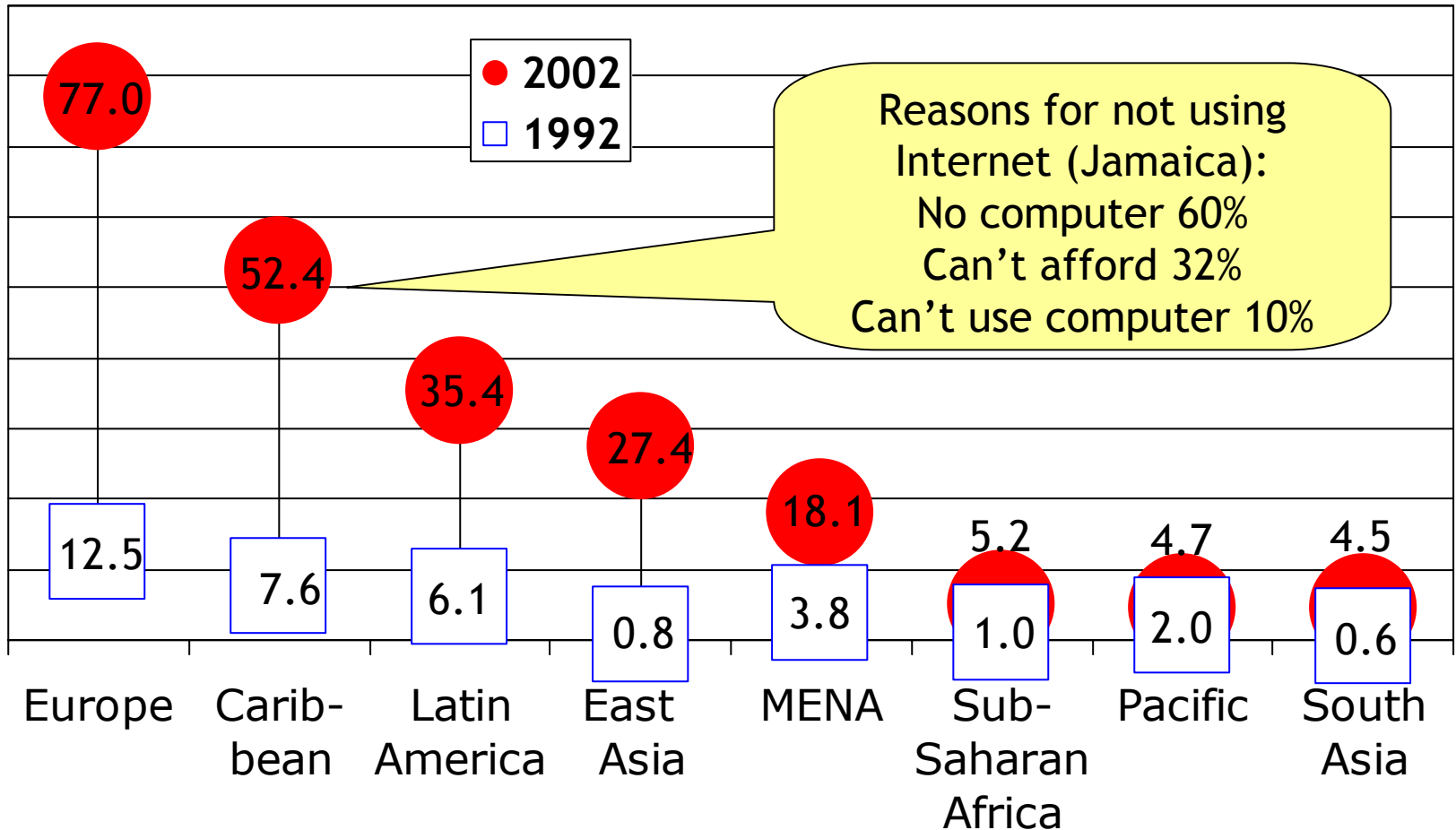
# Indicators for Target 18

- Total number of telephone subscribers per 100 inhabitants
- Personal computers per 100 inhabitants
- Internet users per 100 inhabitants
- ITU charged with providing indicators to help measure this target
- Of all the different targets, number 18 is the most vague (which ICTs should be made available, to whom and by when?)
- Trade-off between the ideal indicator and widespread availability
- Number of indicators for the MDG targets had to be kept to a manageable amount
- The indicators are targeted around ICTs such as mobile phones, computers and the Internet, since the goal states: “...benefits of *new technologies*”



# A decade of ICT progress

## Total telephone subscribers per 100 inhabitants, developing regions



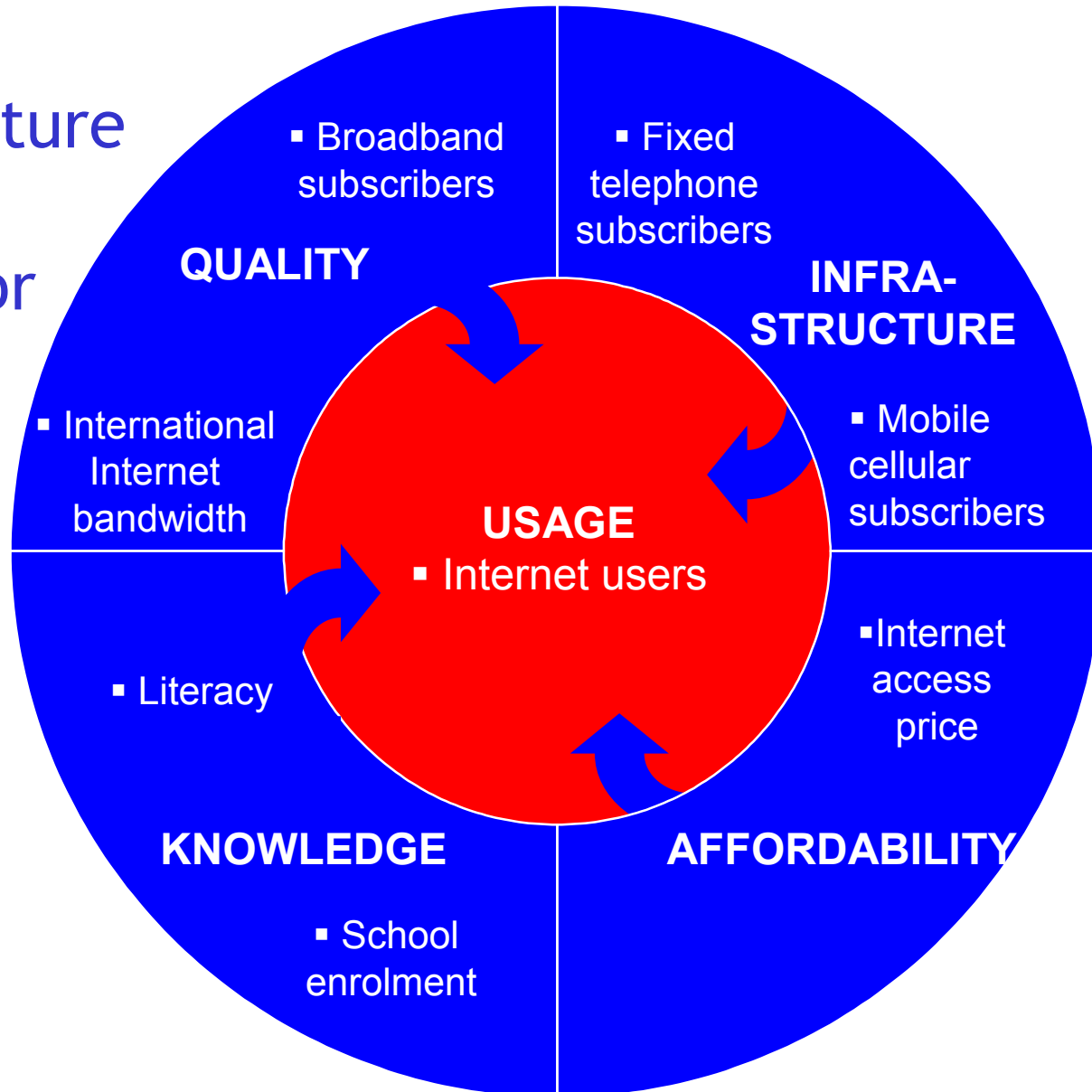
Note: Developed countries are excluded. For definitions of regions, see: [www.worldbank.org/data/countryclass/classgroups.htm](http://www.worldbank.org/data/countryclass/classgroups.htm).

Source: ITU World Telecommunication Indicators Database.



# Digital Access Index

Infrastructure is not the only factor that impacts the availability of ICTs

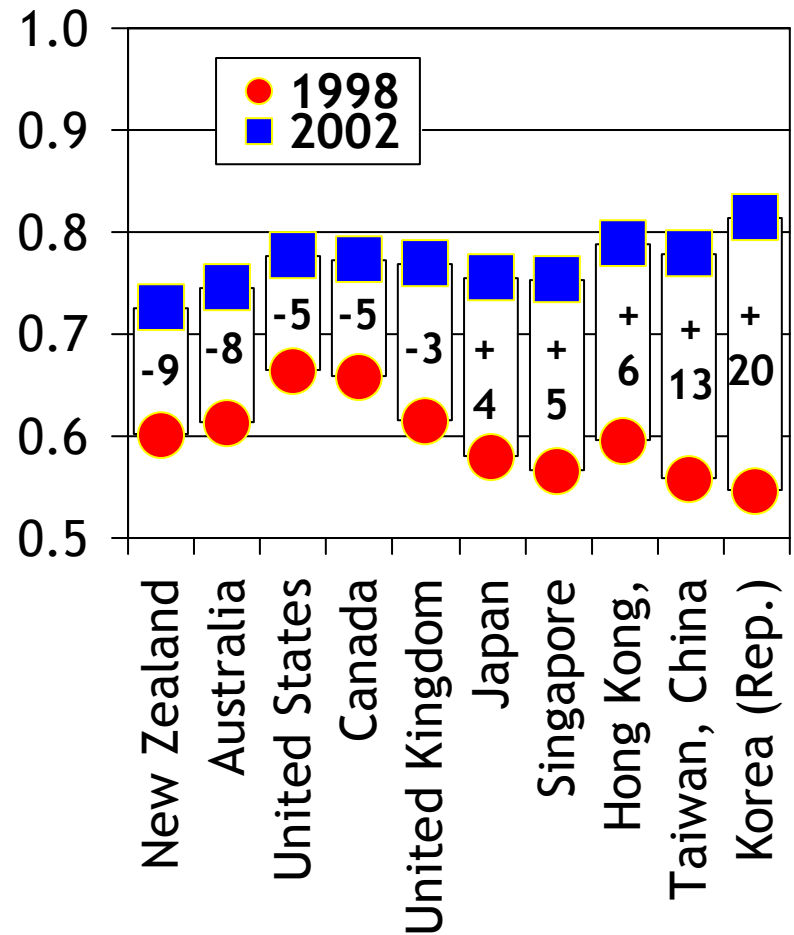


DAI:  
A composite measure that can be used to track Target 18



# Digital Access Index

- Inclusive (178 economies, most of any other ICT index)
- Transparent (5 categories, 8 indicators, easy to decode)
- 4 DAI classifications:
  - High, upper, middle, low
- Research into gender sub-index, national indices and index over time





# How ICTs can help achieve the MDGs

Goal/Target	Role of ICTs
1. Eradicate extreme poverty and hunger	Increase access to market information and reduce transaction costs for poor farmers and traders
2. Achieve universal primary education	Increase supply of trained teachers through ICT-enhanced distance training
3. Promote gender equality and empower women	Deliver educational and literacy programmes specifically targeted to poor girls and women using appropriate technologies
4. Reduce child mortality	Increase access of rural care-givers to specialist support and remote diagnosis
5. Improve maternal health	Enhance delivery of basic and in-service training for health workers
6. Combat HIV/AIDS, malaria, and other diseases	Increase monitoring and information-sharing on disease and famine
7. Ensure environmental sustainability	Remote sensing technologies and communications networks permit more effective monitoring, resource management, mitigation of environmental risks

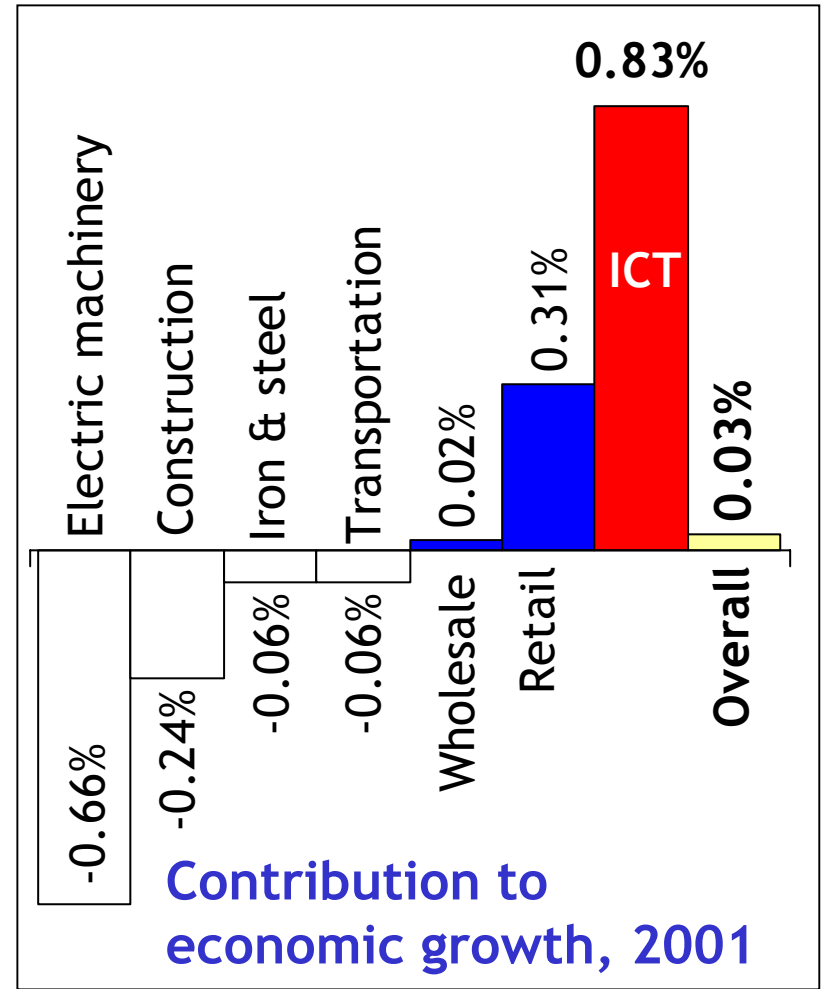
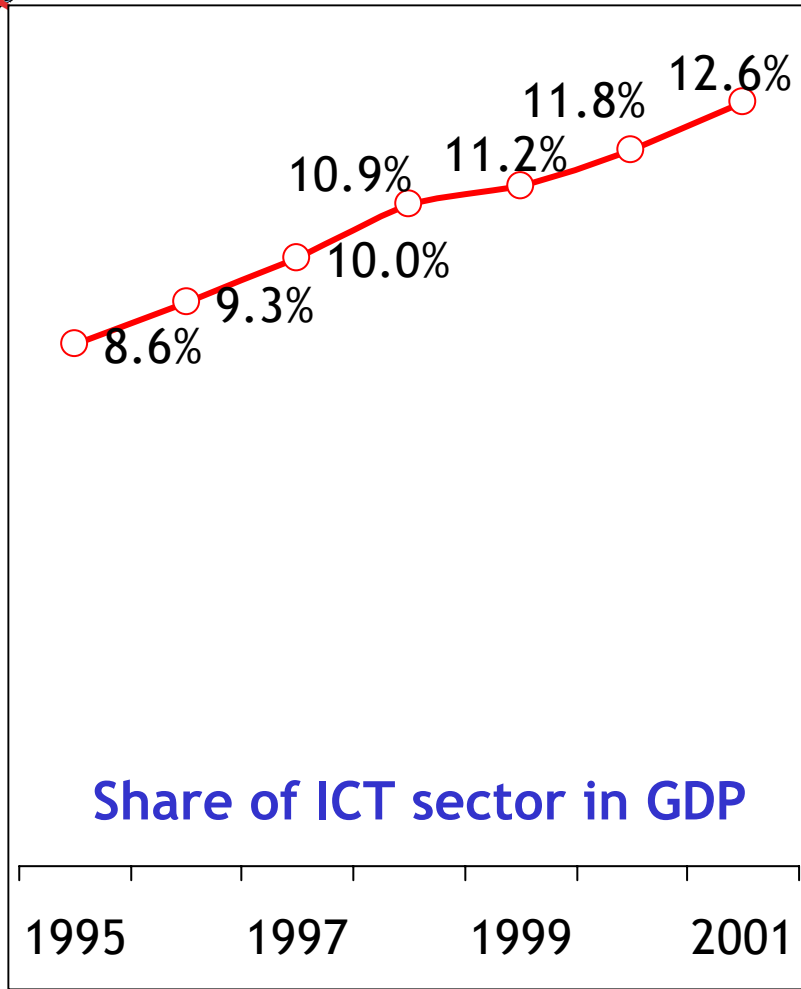
Source: ITU adapted from "The significance of information and communication technologies for reducing poverty." Department for International Development (United Kingdom).

[http://www.dfid.gov.uk/Pubs/files/ict\\_poverty.pdf](http://www.dfid.gov.uk/Pubs/files/ict_poverty.pdf)





# Macro-economic impact of ICTs: Japan



Source: MPHPT (Japan).

ICT annual growth 1995-2001: 9.3%  
 (Overall economy only 1.2%)  
 ICT jobs: 3.8 million  
 (7.1% of all workers, 3<sup>rd</sup> largest employer)

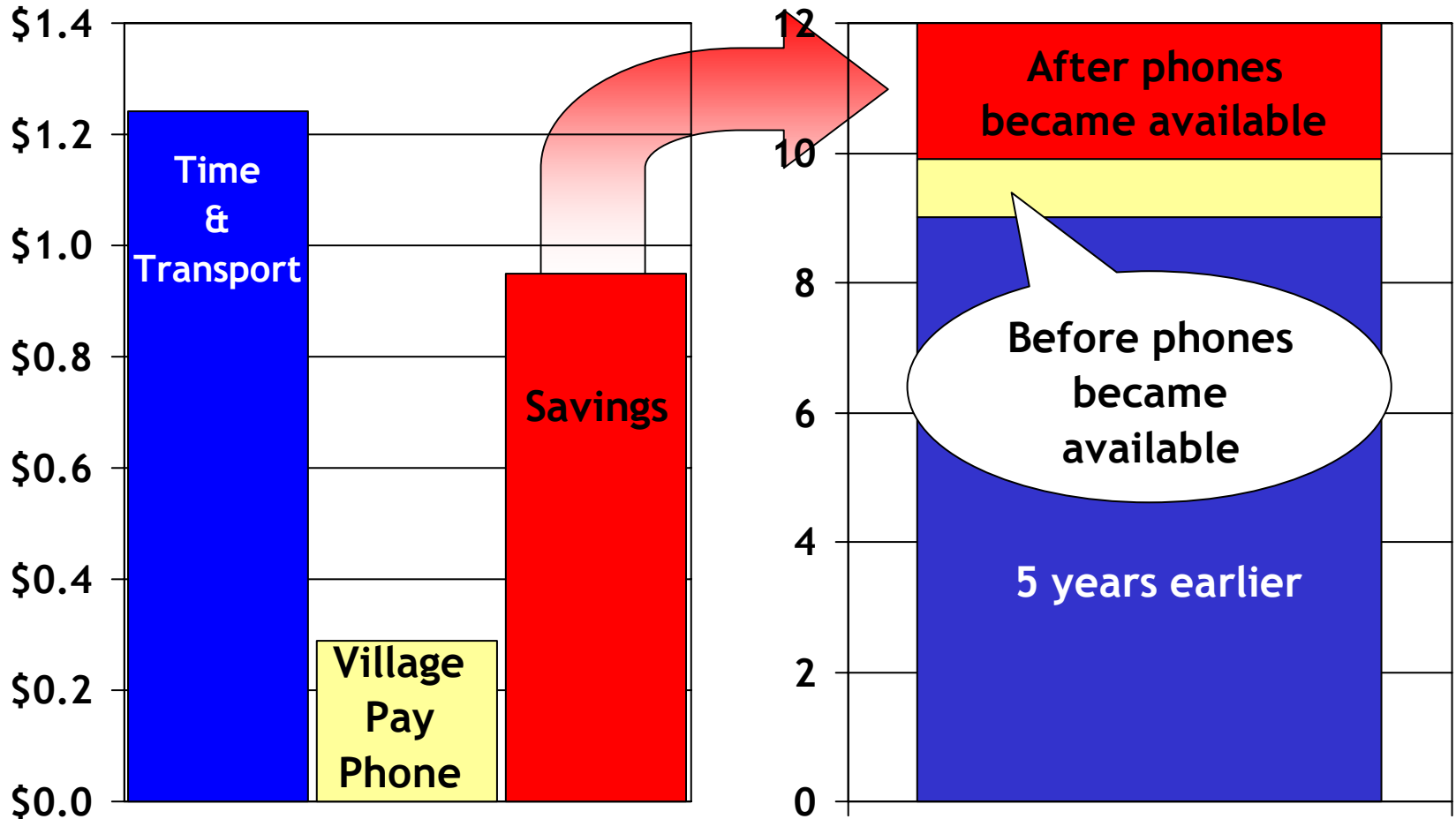
1.5 million jobs created  
 25'024 billion Yen ICT investment  
 40'692 billion Yen production induced



# Micro-economic impact of ICTs: Bangladesh

Cost of village phone and alternatives, US\$

Number of months in which poor phone-using families eat well (months per year)



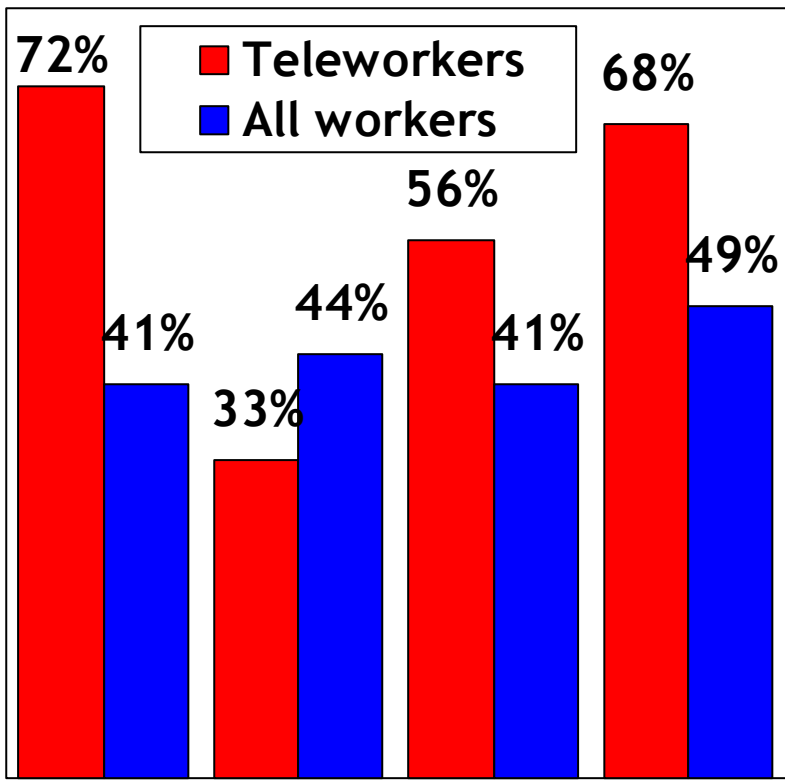
Source: ZEF (Germany). June 1999



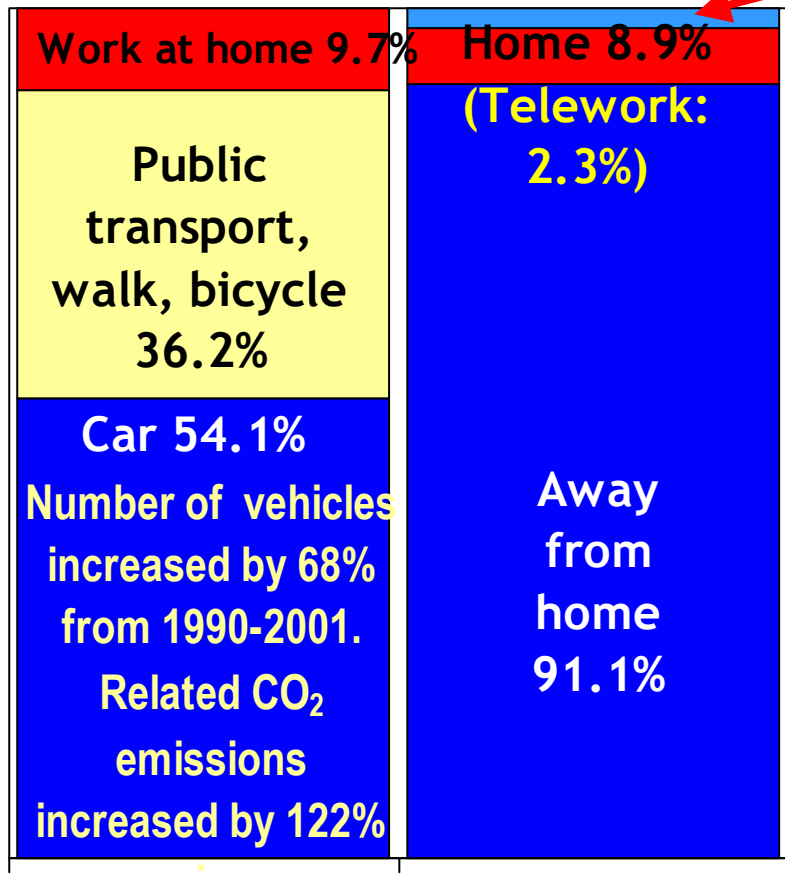
# Gender, pollution & telework in Ireland

Telework: "persons who work from home and could not do so without the use of a computer with a telecommunications link."

More teleworkers = more people working at home = less car pollution (MDG #7)



College Women Have children Married



Getting to work Location of work

Number of vehicles increased by 68% from 1990-2001. Related CO<sub>2</sub> emissions increased by 122%

Source: Central Statistics Office (Ireland).

More tertiary education = more women with small children teleworking (MDG #3)



# Possible indicators to measure impact of ICTs on MDGs

2. Achieve universal primary education

Number of primary school teachers trained through e-learning

In Nepal training is delivered over radio to around 9'000 aspiring primary school teachers

3. Promote gender equality

Number of females enrolled in e-learning

Studies show female participation in e-learning outnumbers men in many countries

6. Combat HIV/AIDS, malaria, and other diseases

% of population who feel the Internet has helped them adopt a healthy lifestyle

In the US 88 per cent of those seeking health information online stated "information they found improved the way they took care of their health."

# In Closing...

- 2003 *World Telecommunication Development Report*
  - Access Indicators for the Information Society
    - Chapter 4: ICTs and the Millennium Development Goals
  - Launch 8 December 2003
- World Summit on the Information Society (WSIS) [Geneva, December 2003]
  - Main event [December 10-12]  
<http://www.itu.int/wsis>
  - Statistical side event [December 8-9]  
<http://www.unece.org/stats/documents/2003.12.wsis.htm>
- 2004: Statistical capacity building through two regional workshops

