

#### MONDAY, 1 September 2008 Press Conference 13:00-14:00

# Asia 2008 Opening & Launch of Asia-Pacific Indicators



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**ASIA-PACIFIC** TELECOMMUNICATION/ICT INDICATORS 2008 Broadband in Asia-Pacific: too much, too little?

#### Asia-Pacific Telecommunication/ICT Indicators 2008 Broadband in Asia-Pacific: Too much, too little?

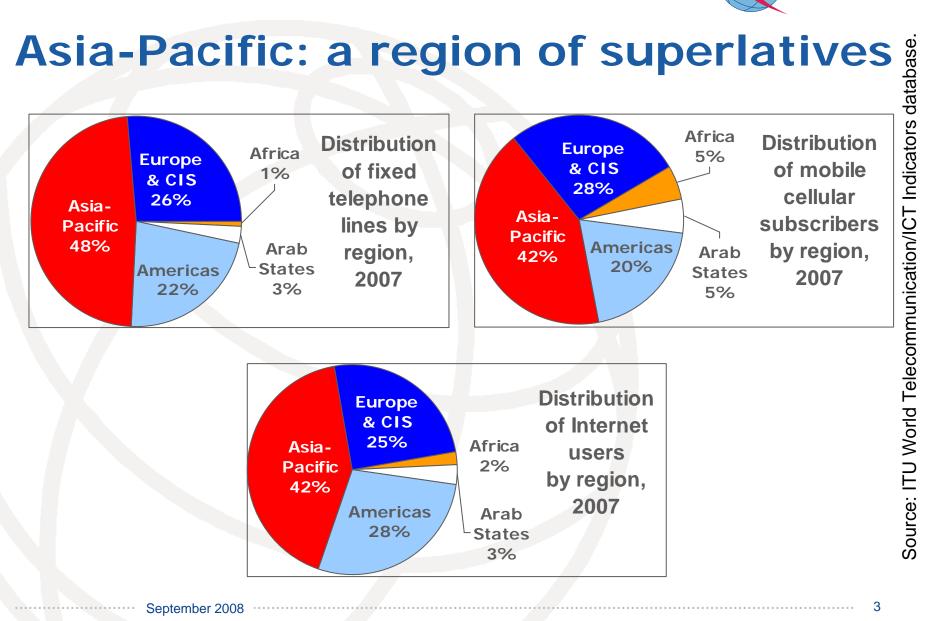
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# **Benefits of broadband**

- Broadband makes the Internet always available at a fast speed:
  - Companies can keep websites up and running 24x7 & can deliver products & services in real time.
  - Individuals enjoy a faster and more pleasant Internet surfing experience and the ability to use bandwidthintensive applications (e.g., VoIP, IPTV).
  - Broadband also enhances a range of socially desirable and valuable online services in areas such as government, education and health.

"Highspeed broadband, which a few years ago was considered a luxury is today a necessary part of the industrial, commercial and lifestyle landscapes." Energy, Water & Communications Minister, Malaysia, Nov. 2006

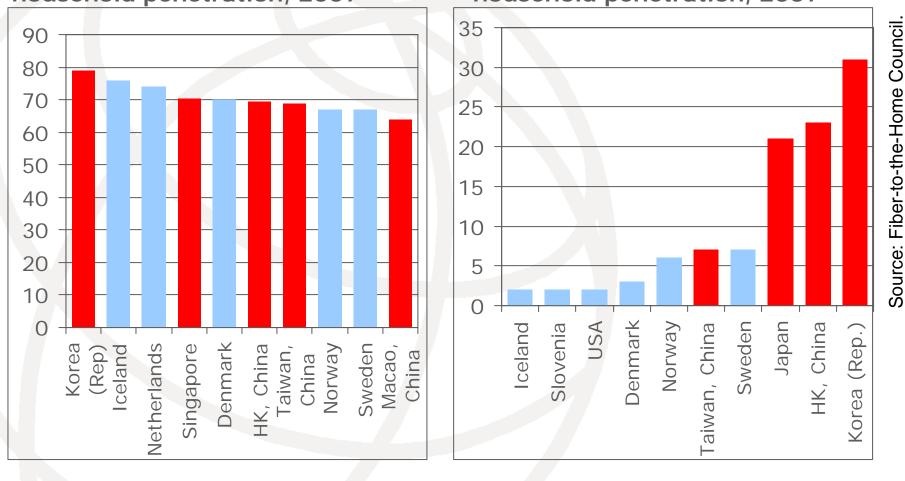


# Broadband champions onomies by broadband Top 10 economies by FTTH/LAN

Top 10 economies by broadband household penetration, 2007

September 2008

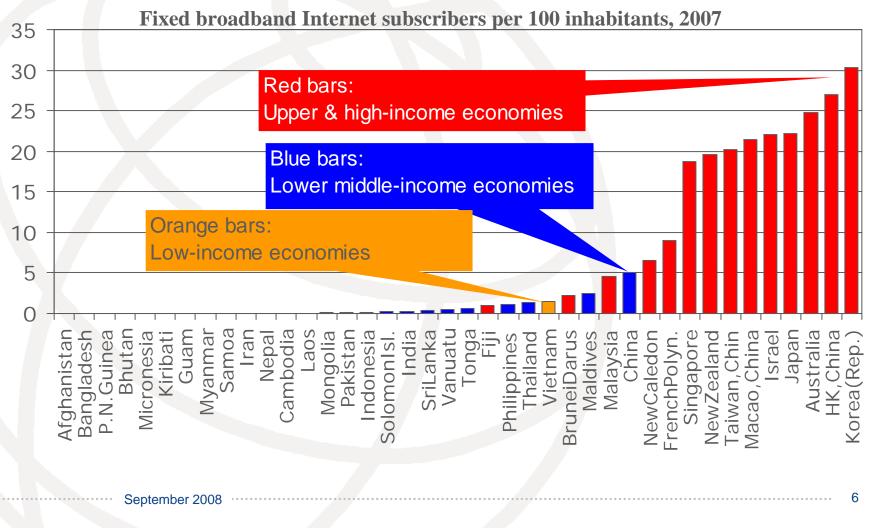
household penetration, 2007



Source: ITU World Telecommunication/ICT Indicators database



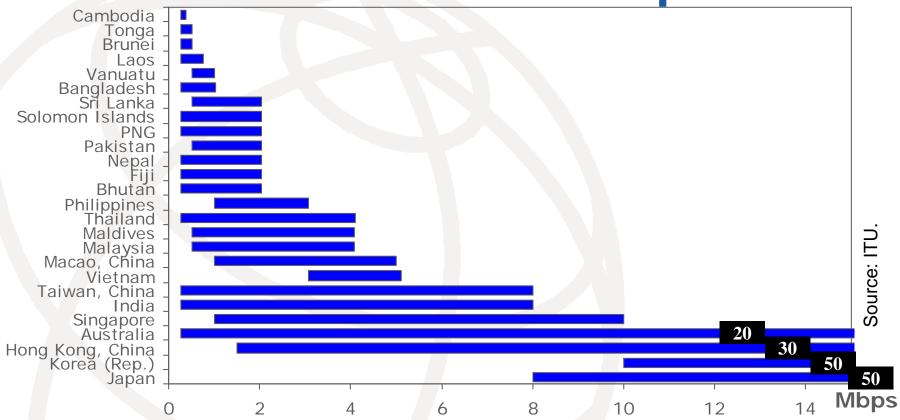
### **Broadband divide: penetration**



Source: ITU World Telecommunication/ICT Indicators database



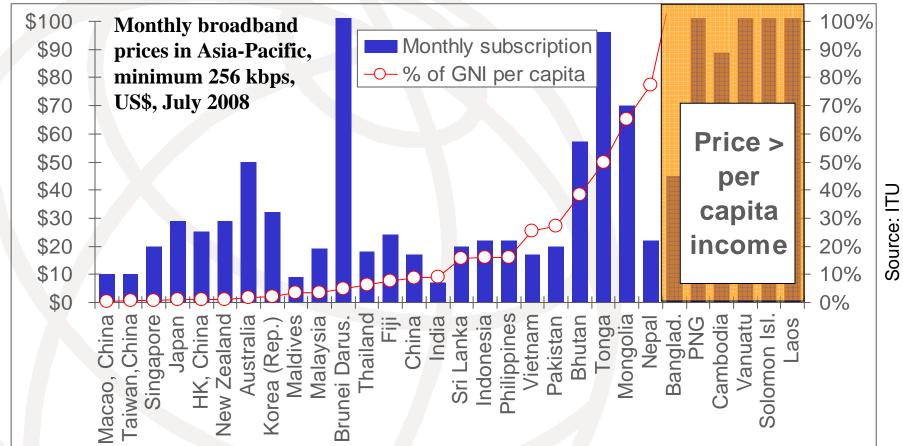
#### **Broadband Divide: Speed**



Note: The range of speeds show the advertised lowest and highest speed consumer broadband plan offered using DSL technology. Higher speed, mass market broadband plans using fiber optic connections are available in several high-income economies, with speeds from 100 Mbps to 1 Gbps. For Bangladesh, speeds refer to a cable modem plan.



#### **Broadband Divide: Price**



High cost of international fibre & scarcity of international bandwidth / Lack of competition & barriers for new entrants / Economy of scale

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#### Broadband: Too much or too little?

- Do some high-income economies have too much broadband?
  - "...there is little evidence to support the notion that faster is inherently better. Can the Japanese and Koreans do something at 100Mb/s that the Americans, British and Germans can't at 20Mb/s?" --The Economist
- On the other hand, the region's low and lowermiddle-income economies are bandwidth deprived, with too little broadband.
  - "...the current population of broadband subscribers is geographically dispersed and thereby not a single area appears to be sufficiently served...the major cities of the country are not optimally served. The situation in the rest of the country is even more dismal, where most of the cities are showing almost zero % penetration..." --Government of Pakistan



#### Top broadband providers versus top mobile providers in Asia-Pacific

#### Top 10 broadband operators, 2007

China TelecomChina NetcomNTT (Japan)Korea Telecom	
NTT (Japan)	35 <i>,</i> 650
	19,768
Korea Telecom	12,960
	6,516
Softbank (Japan)	5,164
Telstra (Australia)	4,598
CHT (Taiwan)	4,243
Hanaro (Korea)	3,658
KDDI (Japan)	2,135
LG Powercom (Korea)	1,721

Low & lower-middle income economies September 2008 Top 10 mobile operators, 2007

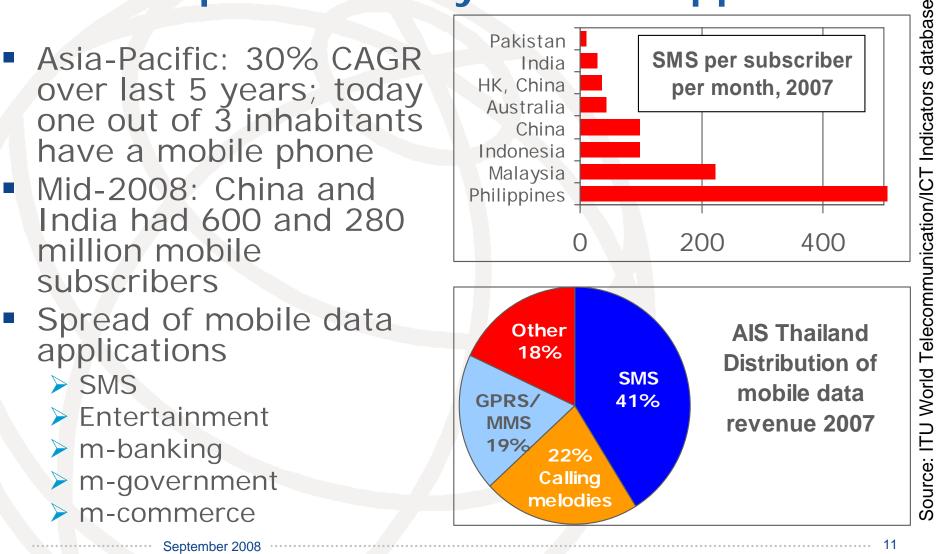
Operator	Subscribers 000s	%BB
China Mobile	369,339	0%
China Unicom	162,491	0%
Bharti (India)	55,163	0%
DoCoMo (Japan)	53,150	79%
Telkomsel (Indonesia)	47 <i>,</i> 890	7%
Reliance (India)	40,960	0%
Vodafone (India)	39 <i>,</i> 865	0%
BSNL (India)	36,810	0%
Mobilink (Pakistan)	30,613	0%
PLDT (Philippines)	30,041	4%

Source: Adapted from company reports.





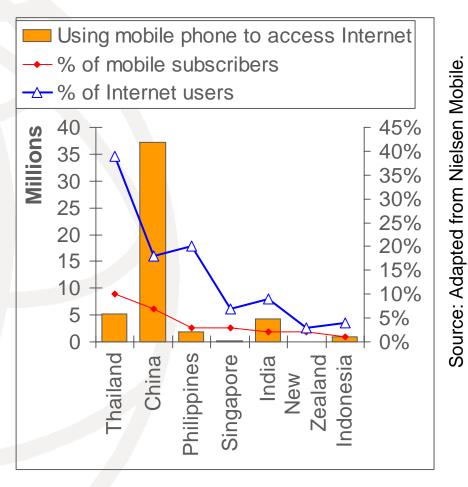
#### Mobile opens the way for new applications,





#### **Mobile browsing**

 A growing number of users in low & lower-middle income economies are using mobile phone as browser to access Internet





#### Wireless technologies for broadband access

Broadband mobile (>256 kbps) ▶ End 2007: 120 million mobile broadband subscribers in AP, almost all in highincome economies Indonesia, Maldives, Philippines & Sri Lanka have launched 3G networks

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- Wi-Fi & WiMAX to set up hot-spots and connect rural areas
  - Thailand: BMA and True to use Wi-Fi to cover 400m<sup>2</sup> area in Bangkok
  - WiMAX used to offer broadband in Fiji, Tonga, and Vanuatu



#### **Two different broadband trends**

- In high-income economies, ubiquitous access is progressing through a competitive race to provide ever faster fixed broadband speeds; deployment of mobile broadband at ever lower price
- Four Asian tigers and Japan are world leaders in broadband penetration, fibre deployment, IP-based voice and video applications and 3G mobile use
- Fixed and mobile technologies complement each other so that many users enjoy uninterrupted high-speed connectivity

- In low and lower-middleincome economies, mobile phones have become a substitute for fixed lines and fixed broadband access
- Many data needs are being fulfilled by the mobile phone, often at non-broadband speeds and delivered to small screens
- Visits to Internet cafes are made (where available) when higher speed, PC-based access is needed
- While ICT access is growing, it is often low-speed, not always convenient and not ubiquitous

**BB4D:** Low and lower-middle-income economies cannot be complacent about broadband. High-speed connectivity is crucial for many applications that have an important impact on development.

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#### Recommendations

- Recognize importance of broadband; formulate actions and targets
- Award licenses and spectrum for wireless broadband technologies (3G, WiMAX)
- Diversify provision by opening up the broadband market to new operators and stimulate competition to lower prices
- Create investment incentives
  - Aggregate demand by pooling dispersed broadband users together
  - Reduce customs duties on ICT equipment and offer tax credits for broadband investment
- Utilize universal service funds to bring broadband to rural and underserved areas, as well as schools
- Promote development of local content
  - To minimize dependence on expensive international connectivity
  - Encourage more citizens to access relevant services and applications
- Encourage convergence and the transition to NGN including adoption of regulations allowing the use of voice and video over broadband networks.



Analytical section

September 2008

- 20 regional tables covering telecommunication/ICT indicators
- 43 individual country pages with a five year profile
- A directory of telecommunication/ICT ministries, regulators and operators in the region