Problems & Prospects for Standardizing Sector Performance by NRAs

Helani Galpaya & Sriganesh Lokanathan
LIRNE*asia*

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Learning Initiatives on Reforms for Network Economies

Indicators & Data are important – but problems exist with accuracy, consistency, comparability

- Differences in sampling method/time period (making comparisons difficult)
  - Majority of countries on a Jan – Dec financial year/reporting period. But India on April – March time period.
  - Indian subscriber data collected/reported quarterly.
  - But Financial data (ARPU etc) reported/calculated on April – March time frame (Indian financial year)

…. data problems contd.

- Errors introduced and propagated
  - E.g. 2005 Local SMS Cost in listed as "---", then as being US$ 0.00 (in 2005 cheapest was around US 0.02)
  - # of unconnected post offices in Sri Lanka (wrongly being equated with and listed as "unconnected villages"

Table 1.2: Status of telephones in South Asian villages
2001

	Villages			*Village population*		
Country	*Number*	*Number with telephone service*	*Percentage with telephone service*	*Total (000s)~*	*Total with access to telephone service (000s)^*	*Percentage with access to telephone service*
Bangladesh a)	86'000	12'568	15	103'441	31'420	30
Bhutan b)	*6'000*	N/A	N/A	636	N/A	N/A
India c)	607'491	468'016	77	741'660	726'827	98
Maldives d)	200	200	100	196	196	100
Nepal e)	3'914	1'761	45	19'457	8'754	45
Pakistan f)	125'083	*12'000*	*10*	97'855	*29'357*	30
Sri Lanka g)	*23'000*	*2'475*	*11*	13'113	*9'834*	75
Total	**851'688**	**497'020**	**58**	**976'358**	**806'388**	**83**

Note: Figures in italics refer to less reliable estimates, secondary sources or earlier years.
~Assumed to be rural population of country.
^If population distribution by village size is known, assumes most populated villages are served first. Otherwise, assumes all villages are of same population. In reality, the majority of villages account for a small portion of the population and tend to be connected last. Therefore, the actual population covered is probably higher than estimated.
a) The figure for villages with a telephone in Bangladesh is for Grameen only (April 2002) and thus could be higher. Rural population covered is based on Grameen estimate.
b) Official data on the number of villages in Bhutan could not be obtained. The figure is an estimate from a secondary source. Likewise, no information could be obtained on the number of villages with a telephone.
c) Source: Census India and BSNL. Data refer to March 2002. Rural population covered derived from ITU estimate based on 1991 Census data and the assumption that more populated villages have already been covered.
d) For the Maldives, villages refer to islands. Source: Dhimagu.
e) Data from Nepal Telecommunications Corporation (September 2001). All villages are to be provided with telephone service by June 2003.
f) The number of villages for Pakistan is from the national power company and is based on 1981 census data. The figure for villages with a telephone refers to a 1999 figure provided by a pay phone vendor. The data for Pakistan is extremely conservative; the actual number of villages and rural population covered is believed to be much higher than shown. For example, over half of Pakistan's villages are electrified.
g) The number of villages in Sri Lanka is based on secondary sources. Villages with telephone service are derived from the number of rural post offices with telephone service. The village population covered by telephone service is assumed the same proportion of rural post offices with telephone service.
Source: ITU research.

Source: ITU Asia Pacific Telecommunication Indicators 2002, p. 10

…. data problems contd.

- Different sources giving different estimates/values for the same indicator

	# of internet subscribers (millions)			Difference between…	
Year	NASSCOM data	TRAI Data	Ministry of Statistics & PI	NASSCOM vs. TRAI	TRAI vs. .Ministry..
1999	0.35		0.23	-	
2000	0.65	0.95	0.943	**-46%**	1%
2001	1.13	3.04	2.909	**-169%**	4%
2002	1.763	3.42	3.239	**-94%**	5%
2003	3.661	3.64	3.5	1%	4%
2004	4.403	4.55	4.05	-3%	11%
2005	6.674	5.55	5.3	17%	5%
2006		6.94	5.556		**20%**

Note: Based on Financial Year – e.g. "2000" refers to April 1999 – Mar 2000

Source: NASSCOM Strategic Review 2005; TRAI; Ministry of Statistics and Program Implementation, Govt. of India

Data & indicators are important – even to the operators (e.g. in stock price valuations by investment analysts)

- A large, profitable mobile operator in Sri Lanka….
  - At recent investor forum, market analysts' claim of the "company losing market share" to competition
- But according to CEO,
  - "observed trends of consumer behavior show that if SIM is given free (or with pre-loaded value), customer uses the value, discards SIM, gets a new one…."
  - [His company] "never does this" (i.e. always charges for the SIM).
  - But his "competitors count **all** SIMs when reporting subscriber base" (including discarded ones)
  - CEO "waiting" for regulator to "publish market share/growth by MINUTES, to prove that it is the largest and growing
- What is counted as a subscriber (**how is a "mobile subscriber" defined**)? **How should market share be calculated** (share of subscribers? share of minutes? share of Revenue?)
  - Even larger stakes when Significant Market Power regulation is involved

Data is important - international community has agreed

- *"Partnership on Measuring ICT for Development"*
  - Launched in 2004.
  - With stakeholders involved statistical measurement of Information Society
  - ITU, OECD, World Bank, UNCTAD, UNESCO Institute for Statistics, UN ICT Task Force, 4 UN Regional Commissions (UN Economic Commission for Africa, Central & Latin America, …..)…..etc.
  - **Definitions**, stock –take of **what data is available** in the countries
- Much (much!) earlier than that …. **ITU** deeply involved in defining, collecting and reporting on data related to ICTs

So why are we (SAARC+ASEAN) meeting here (instead of in Switzerland)?

- Because variations in Regional Data (vs. global/west-centric data) can be significant
- E.g. OECD "price basket methodology" to compare prices of fixed/mobile services
  - OECD assumes a "medium user" of mobiles talks for 75 minutes per month
  - But we know (from data, from the NRA) that **South Asians talk MORE** (India over 400 minutes per month; Sri Lanka around 200 minutes per month)
- OECD's assumptions **make Indian prices 4.6X cheaper than it is in reality**

Data creation/collection happens at the ground level – by YOU

- Good data is (at a minimum):
  - Accurate
  - Timely
  - Well defined
- Are these within your control (should they be?)
  - Accuracy – you can/should verify/triangulate/ensure
  - Timeliness – you can/should mandate
  - Definitions – more sensible to accept global/more widely accepted definitions where ever possible (to improve the value of your data), but you could add value

The process needs to be sustainable – with ownership of stakeholders

- Are there sufficient incentives for all parties to collect/report data?
- Do they see VALUE to them having good data?
  - For the NRA: to monitor and improve sector performance
  - For the operators: to benchmark; for business gain (e.g. prove/disprove market dominance)
- Are there ways data can be collected in a sustainable manner and collectively used without having to "force" anyone?
  - Ownership might be a first step……
  - A possible model next [by Sriganesh Lokanathan]

ICT Indicator databases

- Different implementation examples currently exist:
  - ASEAN CONNECT – ASEAN Digital Divide Database
    - http://www.aseanconnect.gov.my/d_database/d_database.php
  - ITU - World Telecommunication Indicators Database
    - http://www.itu.int/ITU-D/ict/publications/world/world.html
- Mandates for developing database resources currently exist
  - APT
  - Partnership on Measuring ICT for Development

A concrete proposal building on these prior initiatives

- A "participatory" partnership model
- Principles:
  - Accurate & comparable ICT indicator data is valuable for each and every member.
  - Geared towards ***enhancing availability and use*** of accurate and comparable data amongst members
  - Provide incentivized participation process – to consume data you need to provide data
  - Provide an open exchange of information amongst members based on mutual trust and collaboration
  - Provide for the collection of data via a web-accessible database
  - Allow the members' council to take ownership of the strategy, functioning and operational principles
  - To have an administrative component with a ***small*** footprint.

Partnership model – Main features

- A web-accessible database allows for both the collection & dissemination of data amongst members and others:
  - Password protected access for each member to view and enter data
  - Tiered access levels for
    - Members (as you give so shall your receive!)
    - General public
  - Multi-functional query tools
  - Automatic report generation

Partnership model – Main features contd.

- A dedicated "guardian" for each indicator.
  - Is a representative of one of the member organizations
  - Ensures timeliness and accuracy of data reported by members for that indicator.
  - Becomes a subject expert for that indicator
    - initiates discussions on definitions,
    - coordinates amongst members on indicator specific issues
    - liaises with external organizations on indicator specific issues.

Partnership model – Main features contd.

- Periodic "State of indicators data" workshops to:
  - present the results of data-mining the raw data provided by members
  - evaluate indicator definitions & reported data to ensure conformity as much as possible (initiated by indicator "guardians")
  - elect a governing body
  - provide overarching strategic guidance

Partnership Model – Governance

- Members Council:
  - Consists of all participating organization
  - Sets data access policies
  - Provides overall strategic guidance.
- Governance Body
  - Elected for ***short*** terms by Members Council and consist of ex-officio members of participating organizations.
  - Chairmanship is rotated amongst participating countries.
- Administrative Unit
  - Consists of a ***small*** number (1-2 people) of permanent staff
  - Implements strategy and policies determined by members council
  - Supports continuity and technical coordination amongst members and any potential external groups.

Partnership Model – Funding

- Find startup seed money via donor agencies (1-2 years)
- Members contribute minimal funding for overhead costs
- Members contribute in kind by:
  - Rotating responsibility for organizing & hosting periodic workshops
  - Hosting the database and providing IT support
  - Providing office space for administrative staff
  - Providing an indicator "guardian"

An example – Association of American Universities Data Exchange (AAUDE)

- Started in 1974 and consists of public and private AAU universities (currently 50+ members)
- Purpose:
  - Annual exchange of data/information agreed upon by institutional representatives
  - Share results of special studies and inquires conducted by representatives of member institutions
  - Continually enhance efficiency in data exchange and communication amongst members.
- More info: http://www.pb.uillinois.edu/AAUDE/

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Crosswalk Tables
Tables that provide the ability to connect disparate data sources.

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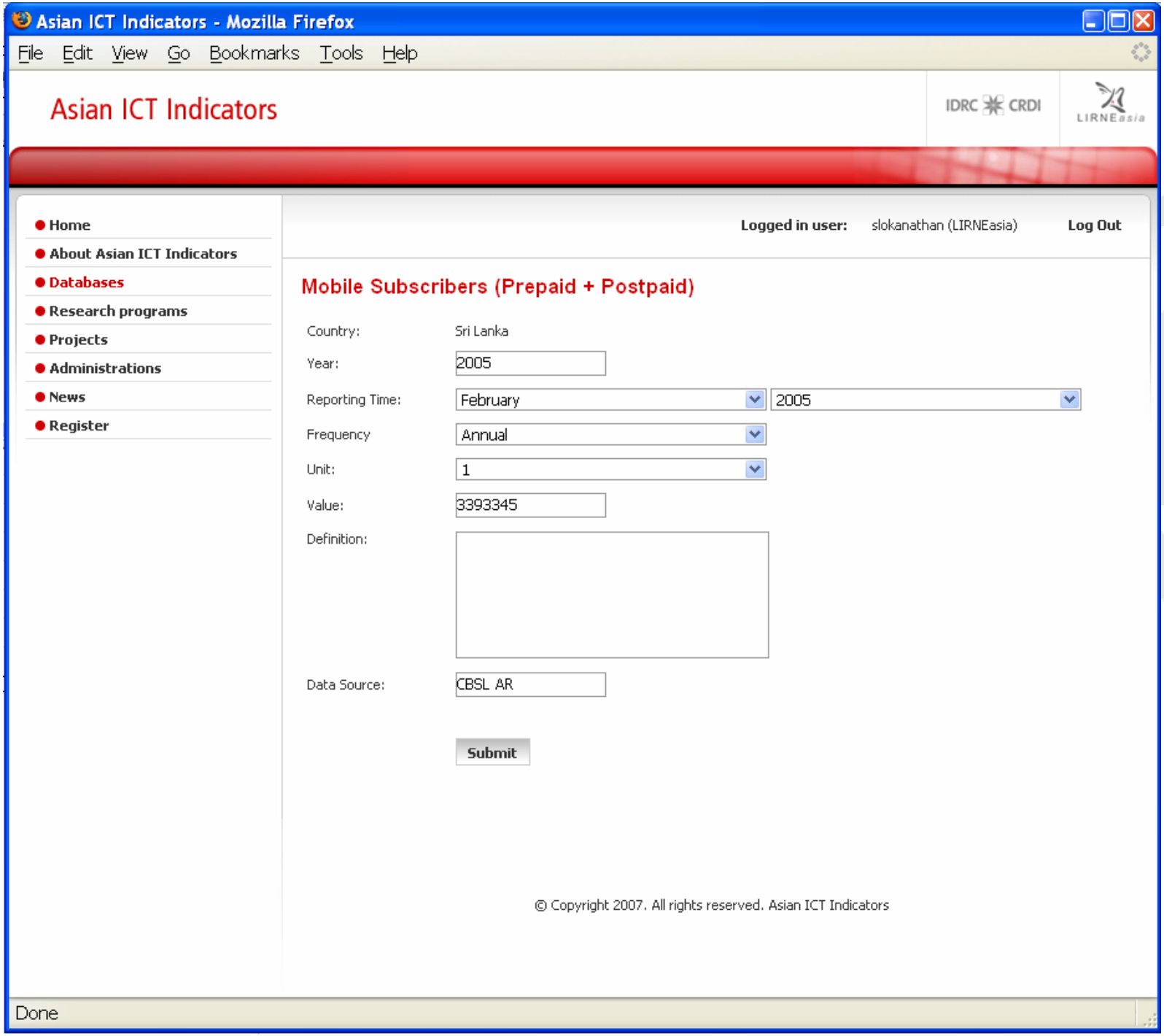
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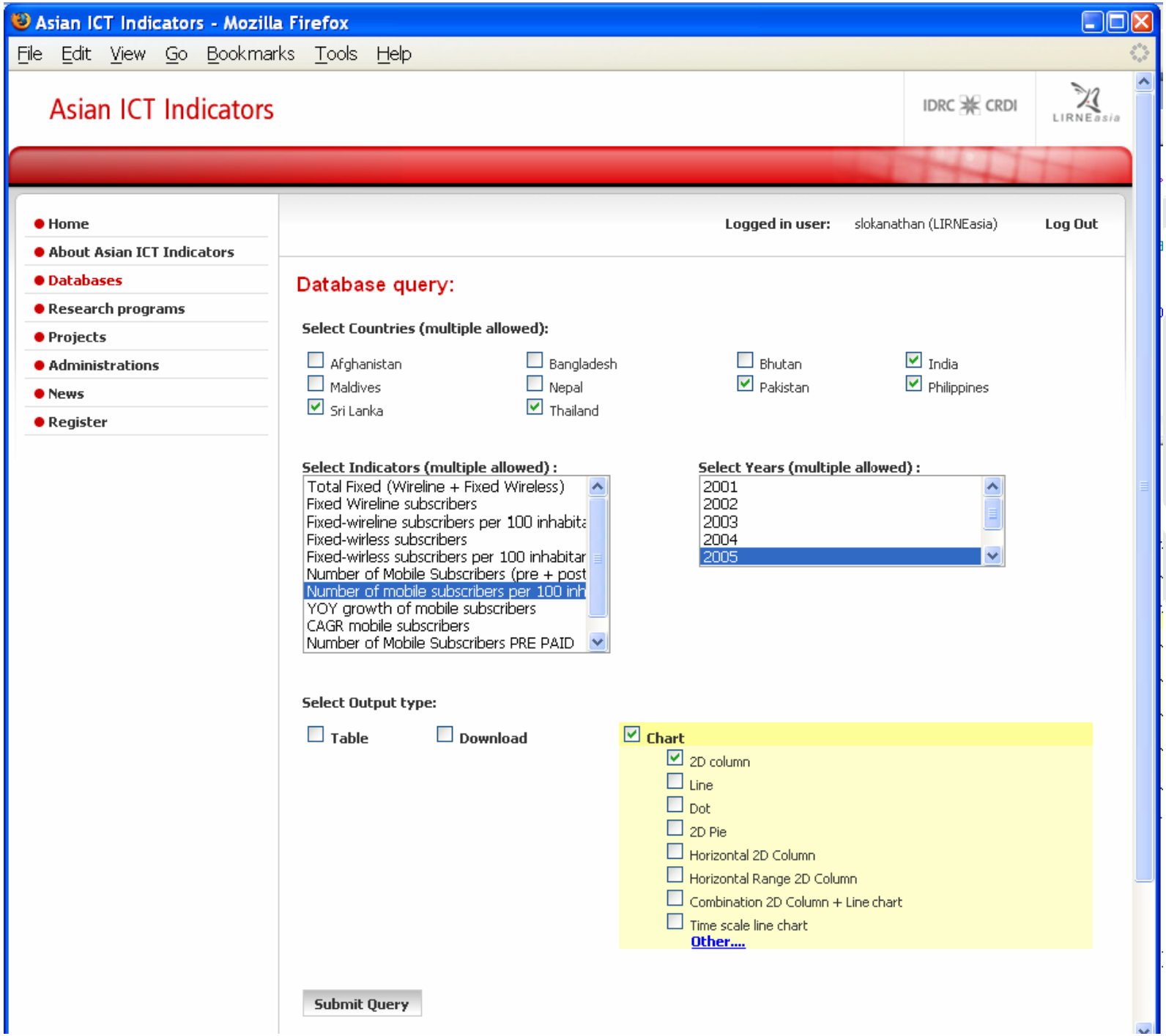
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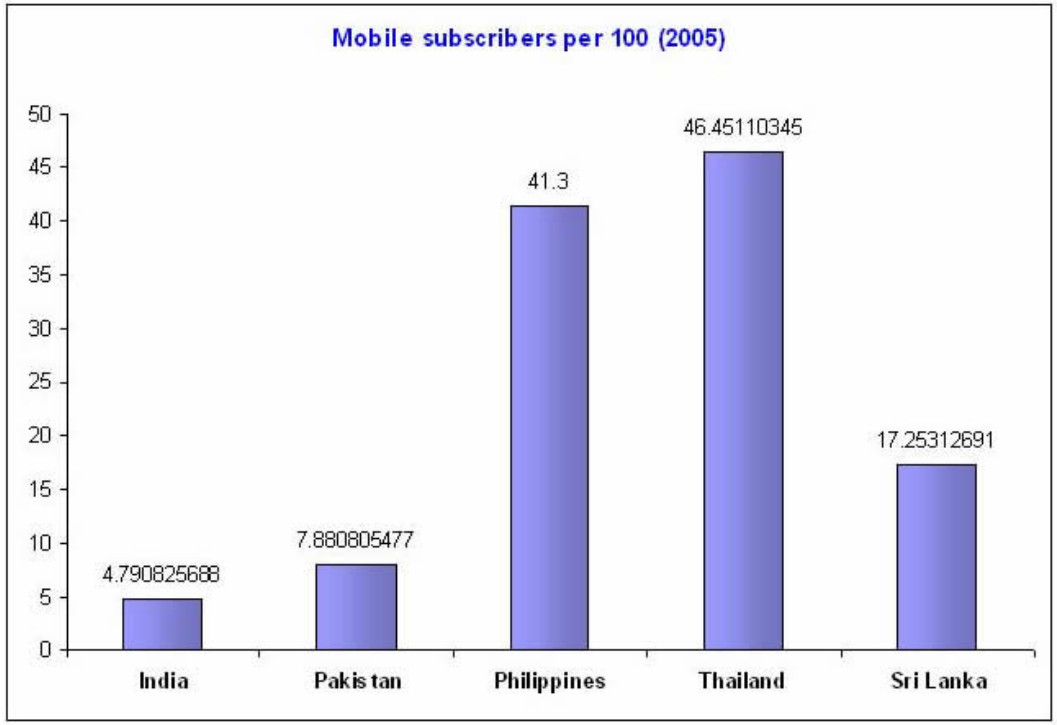

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What can LIRNE*asia* do?

- Agree in principle to:
  - Draft a comprehensive proposal
  - Find the seed capital to start this initiative and organize the 1st meeting
  - Find funding for travel of South Asian delegates for the first meeting.
  - Be the administrative component through the 1st cycle
  - Develop (ongoing) and host the database through the 1st cycle.