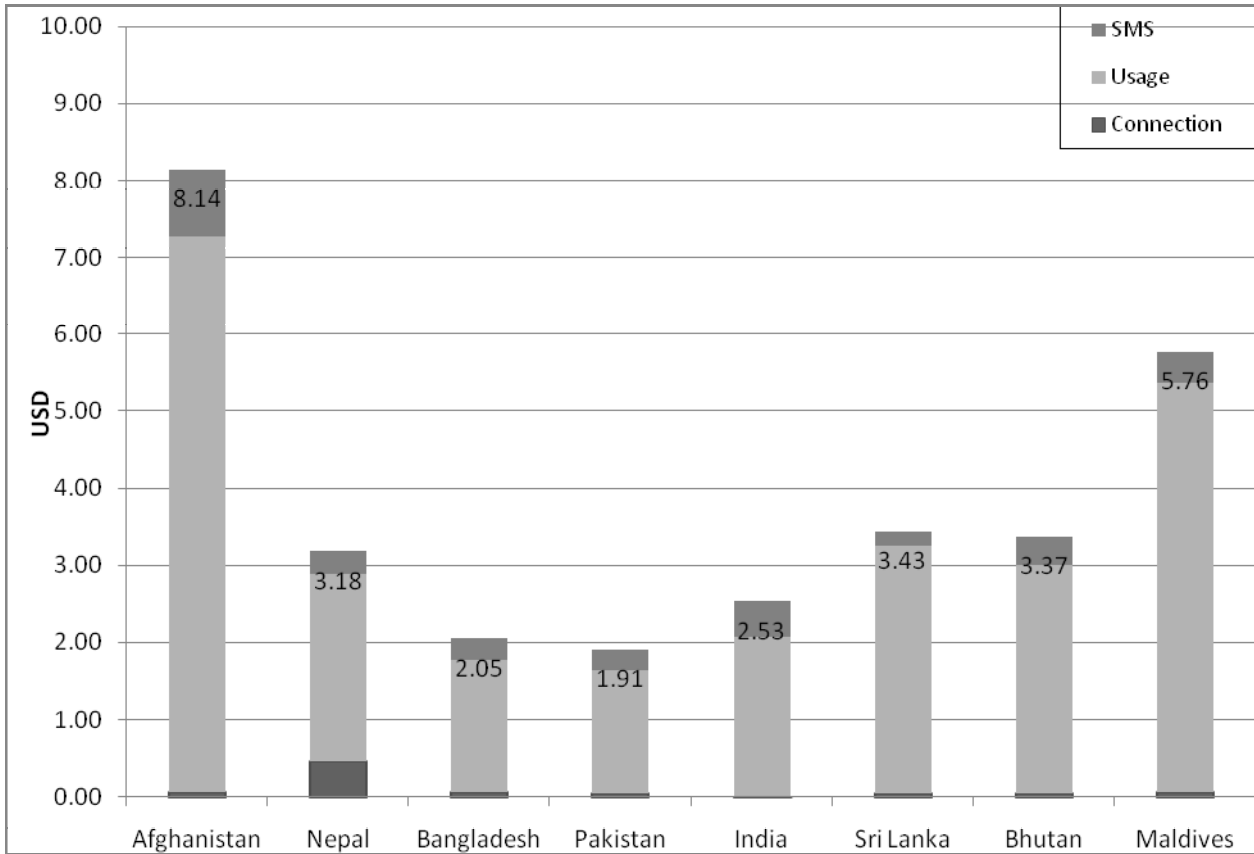


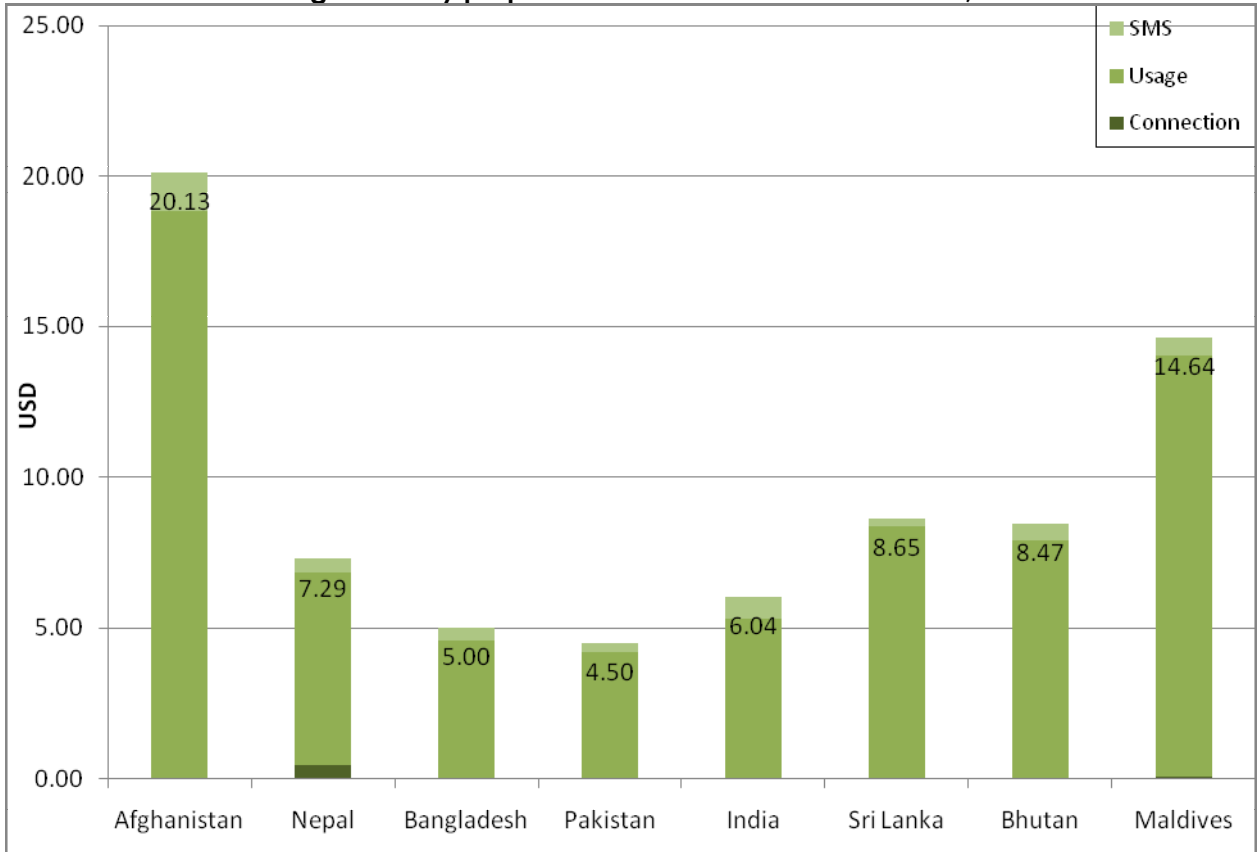
October 2009

Mobile price baskets (USD)

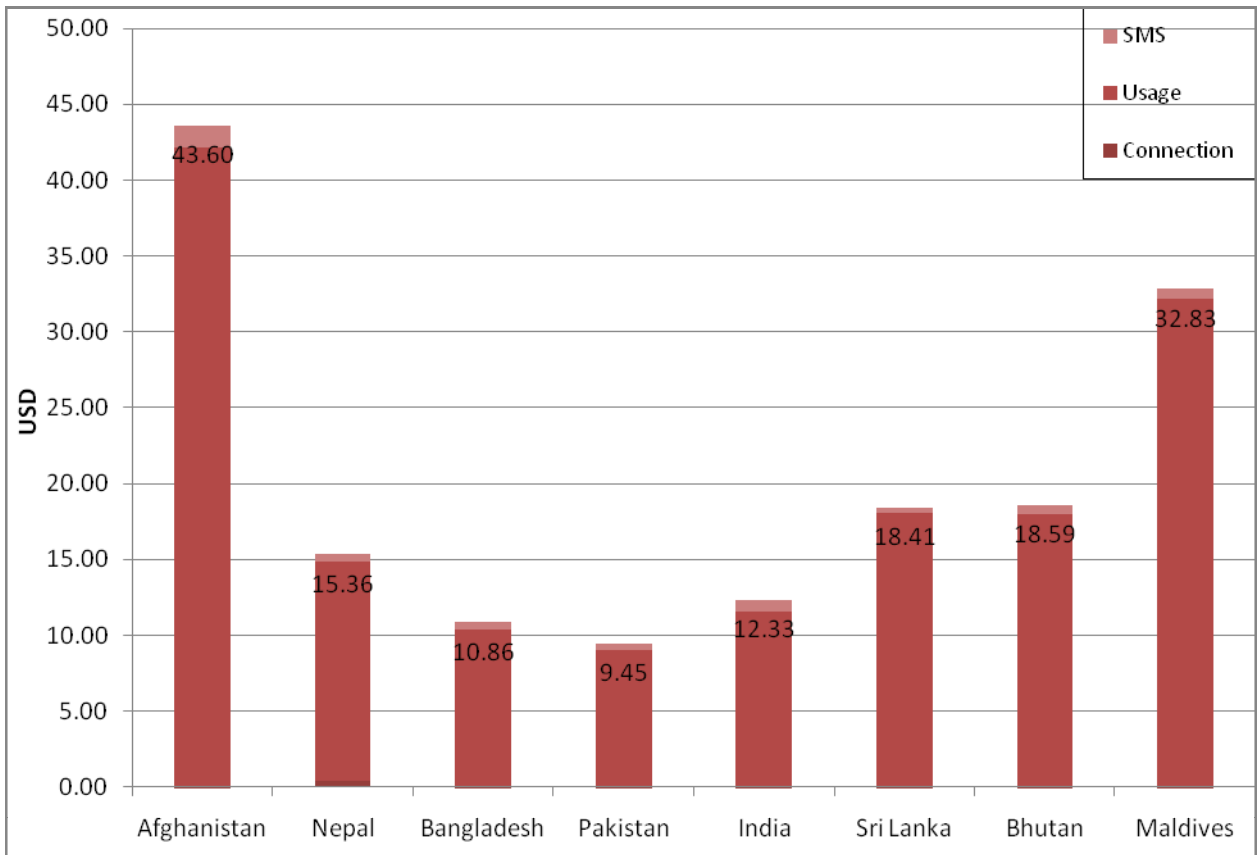
Average monthly prepaid mobile cost for a Low User, USD



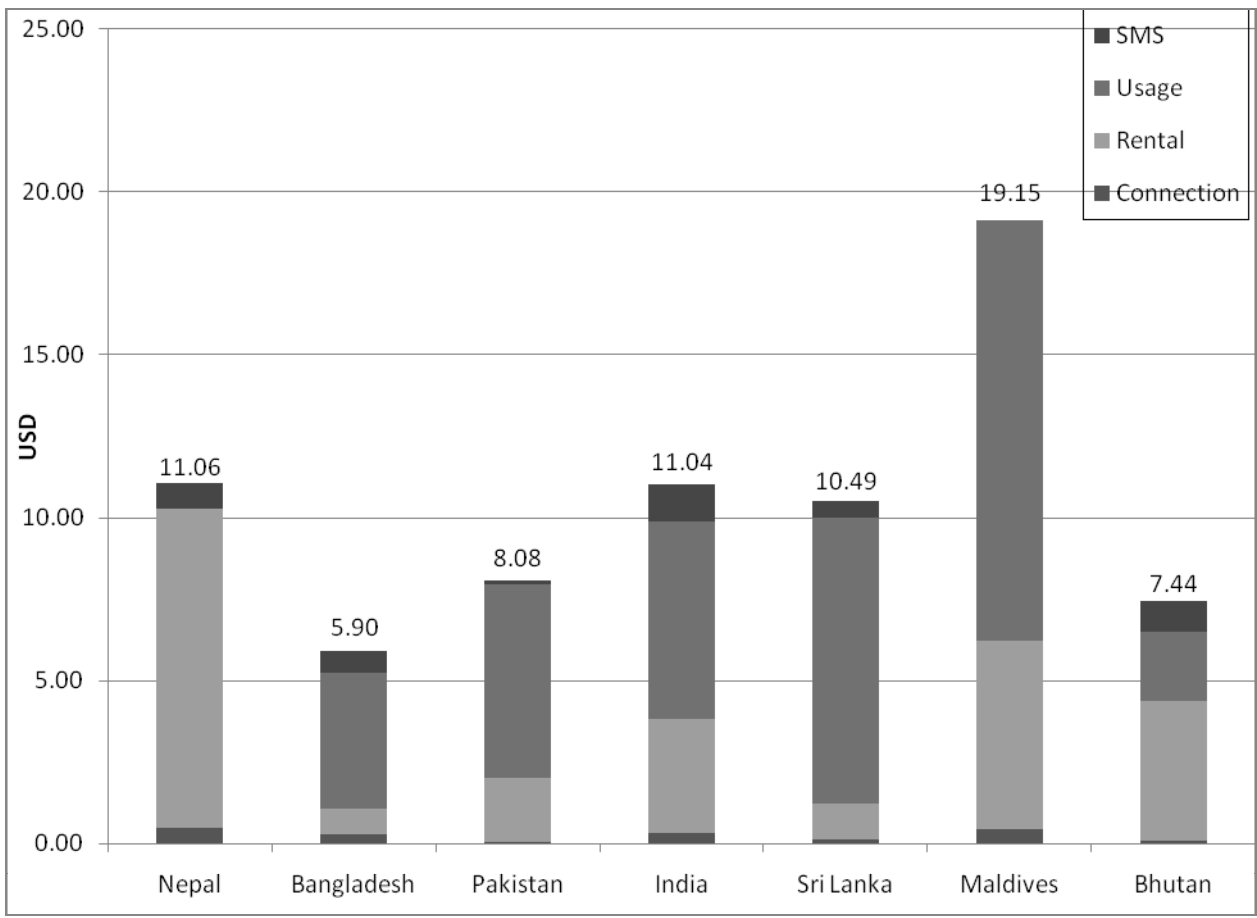
Average monthly prepaid mobile cost for a Medium User, USD



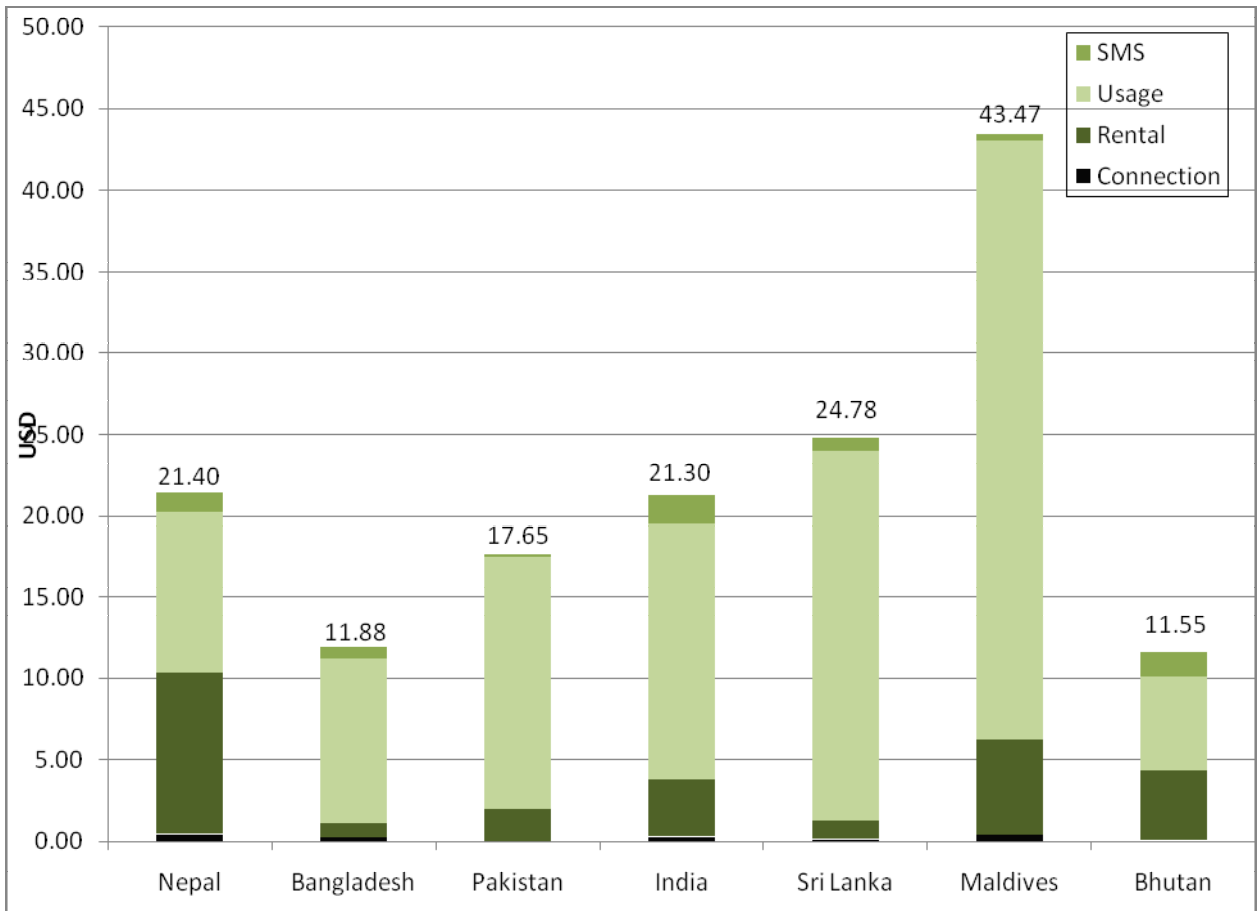
Average monthly prepaid mobile cost for a High User, USD



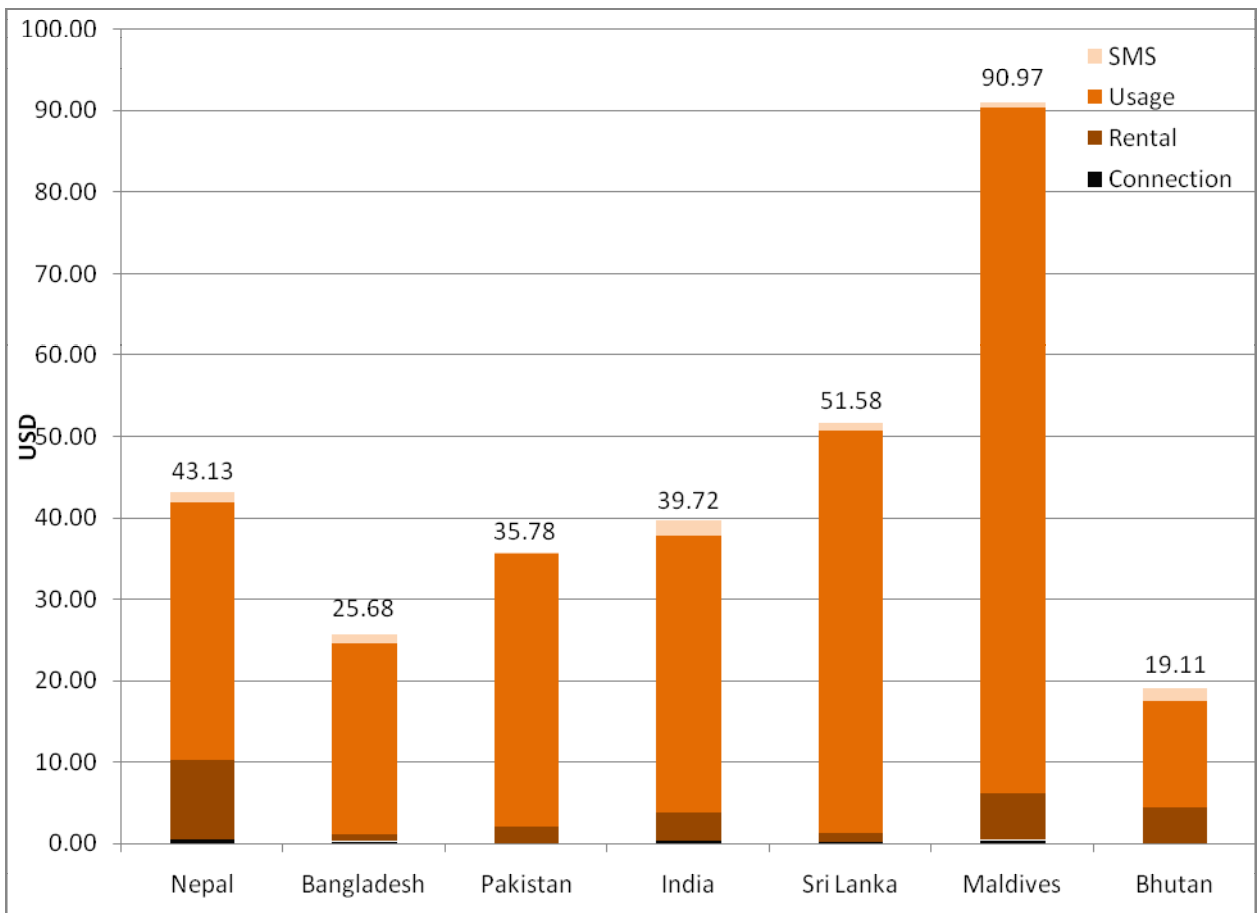
Average monthly postpaid mobile cost for a Low User, USD



Average monthly postpaid mobile cost for a Medium User, USD

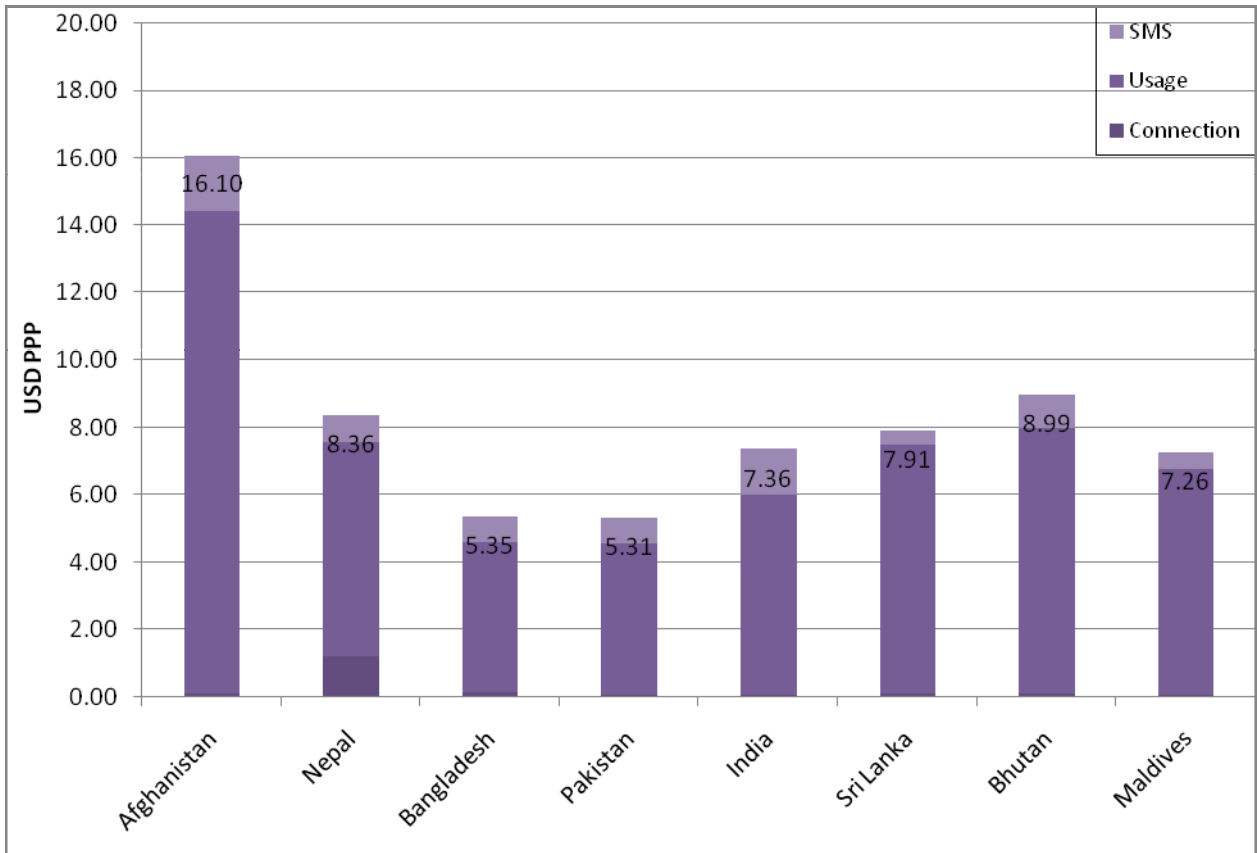


Average monthly postpaid mobile cost for a High User, USD

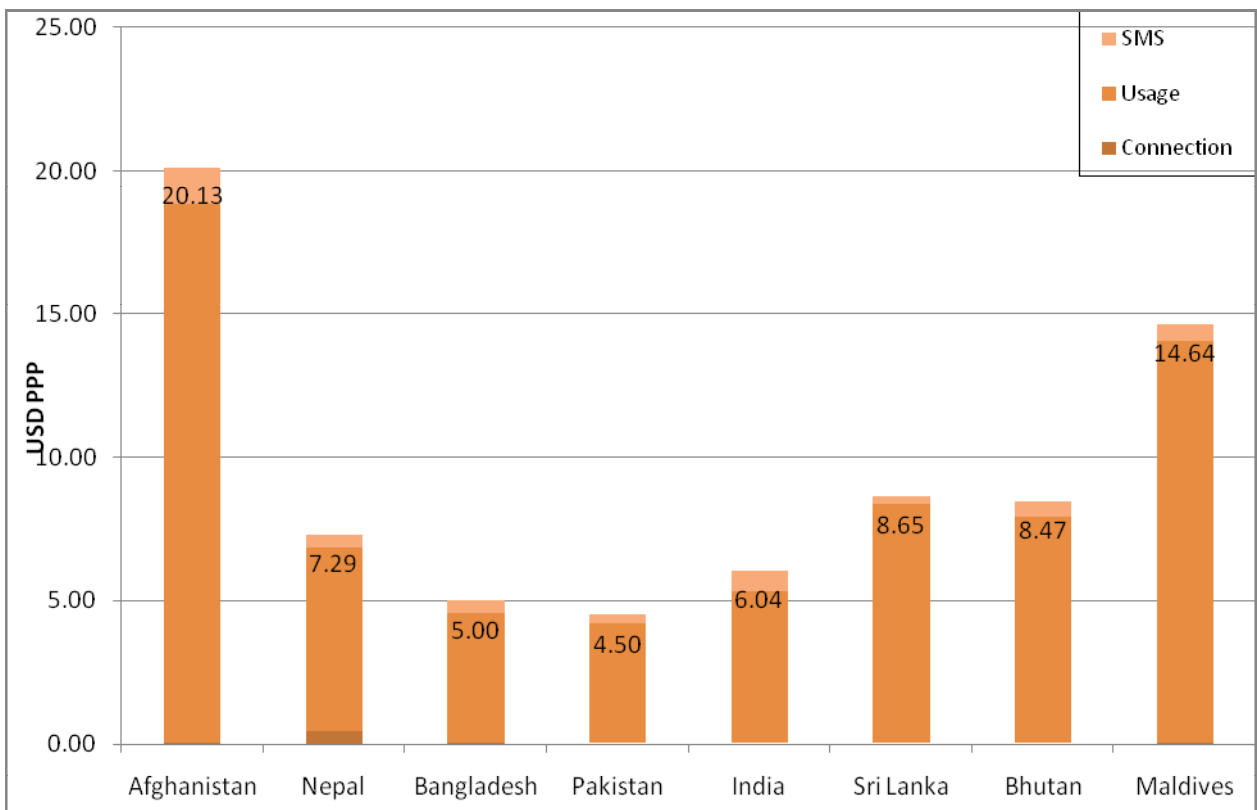


Mobile price baskets (USD PPP)

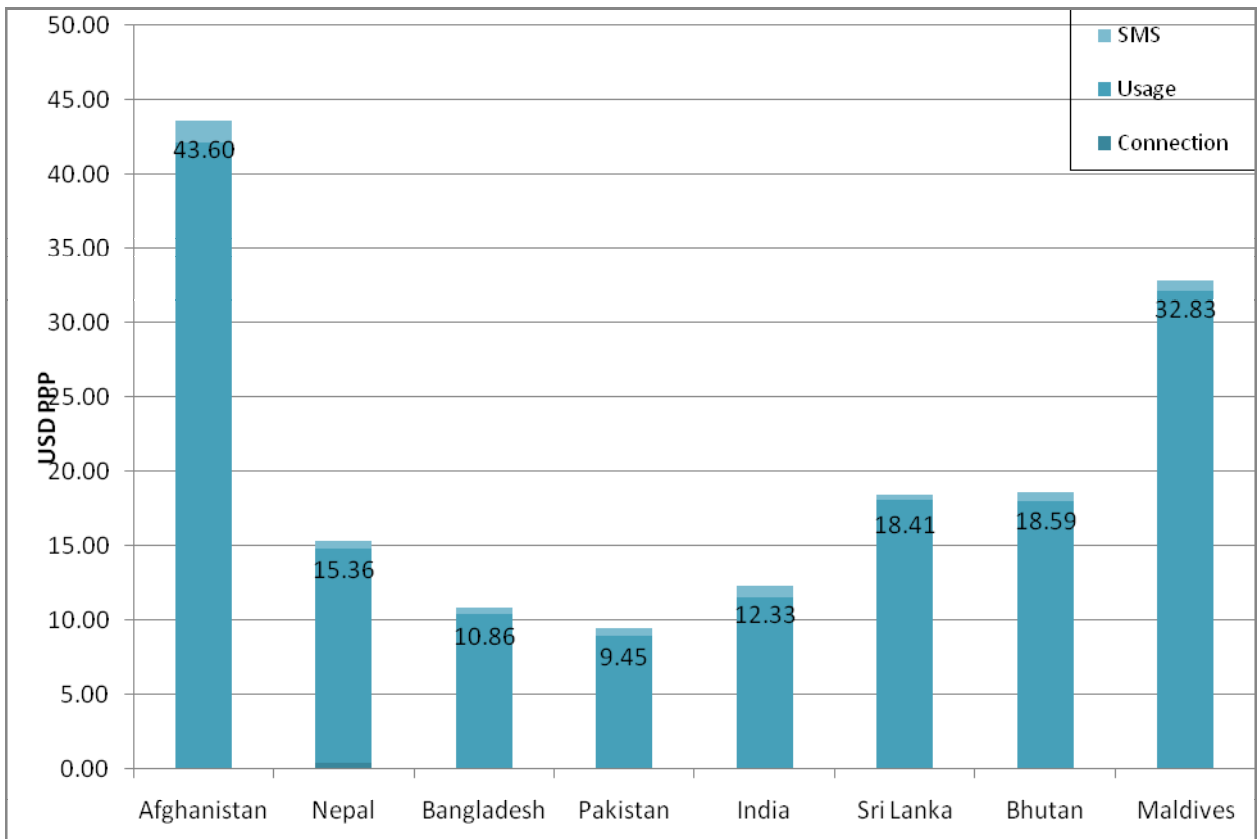
Average prepaid monthly mobile cost for a Low User, USD PPP



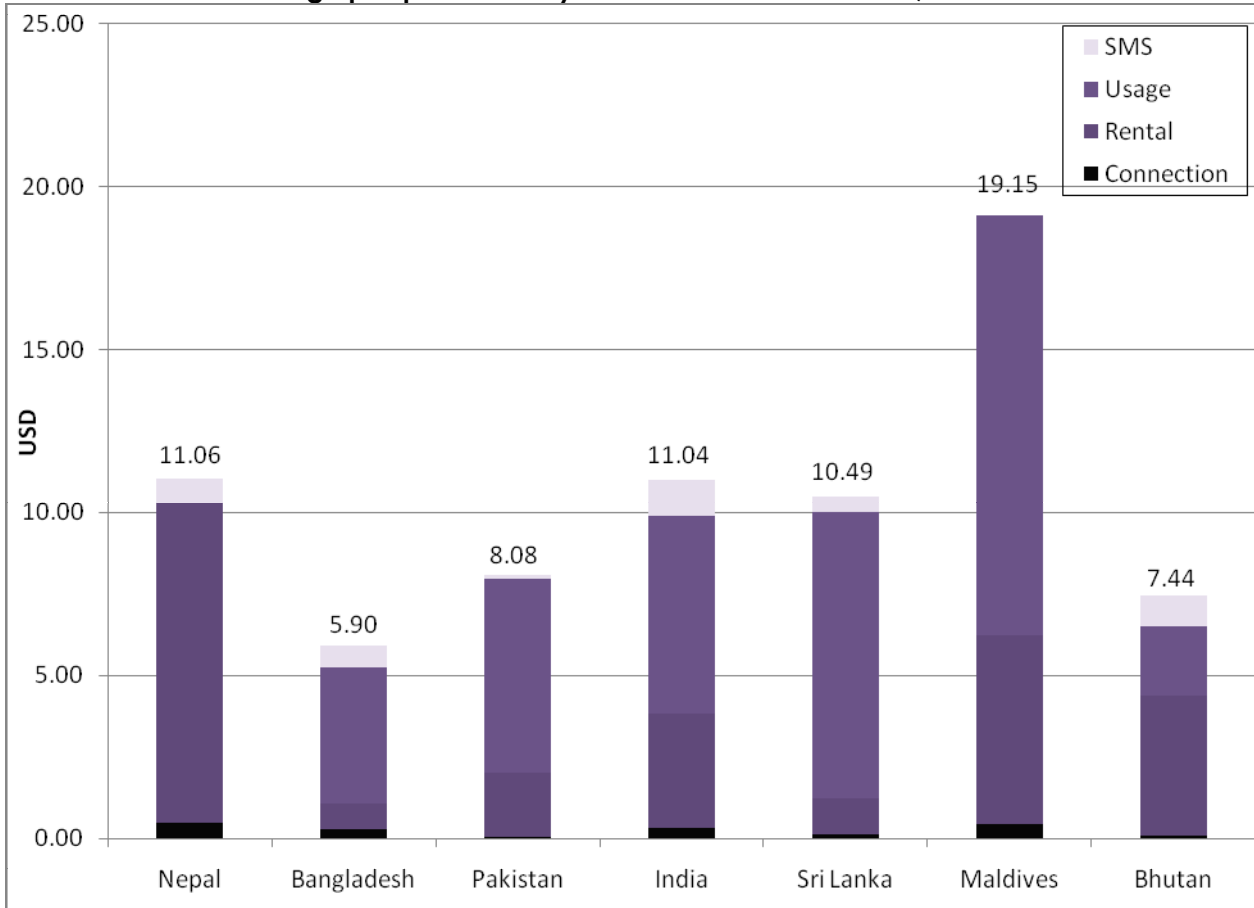
Average prepaid monthly mobile cost for a Medium User, USD PPP



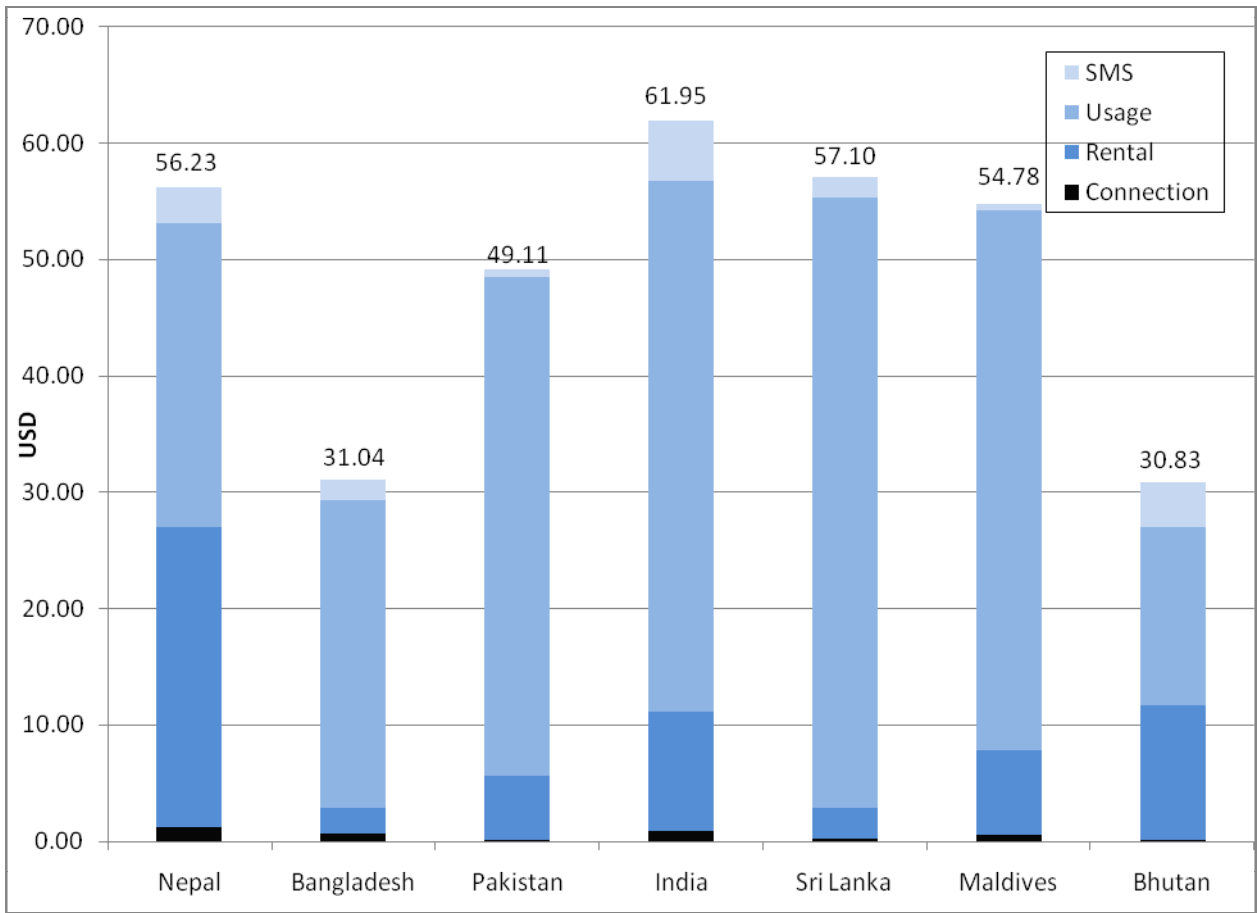
Average prepaid monthly mobile cost for a High User, USD PPP



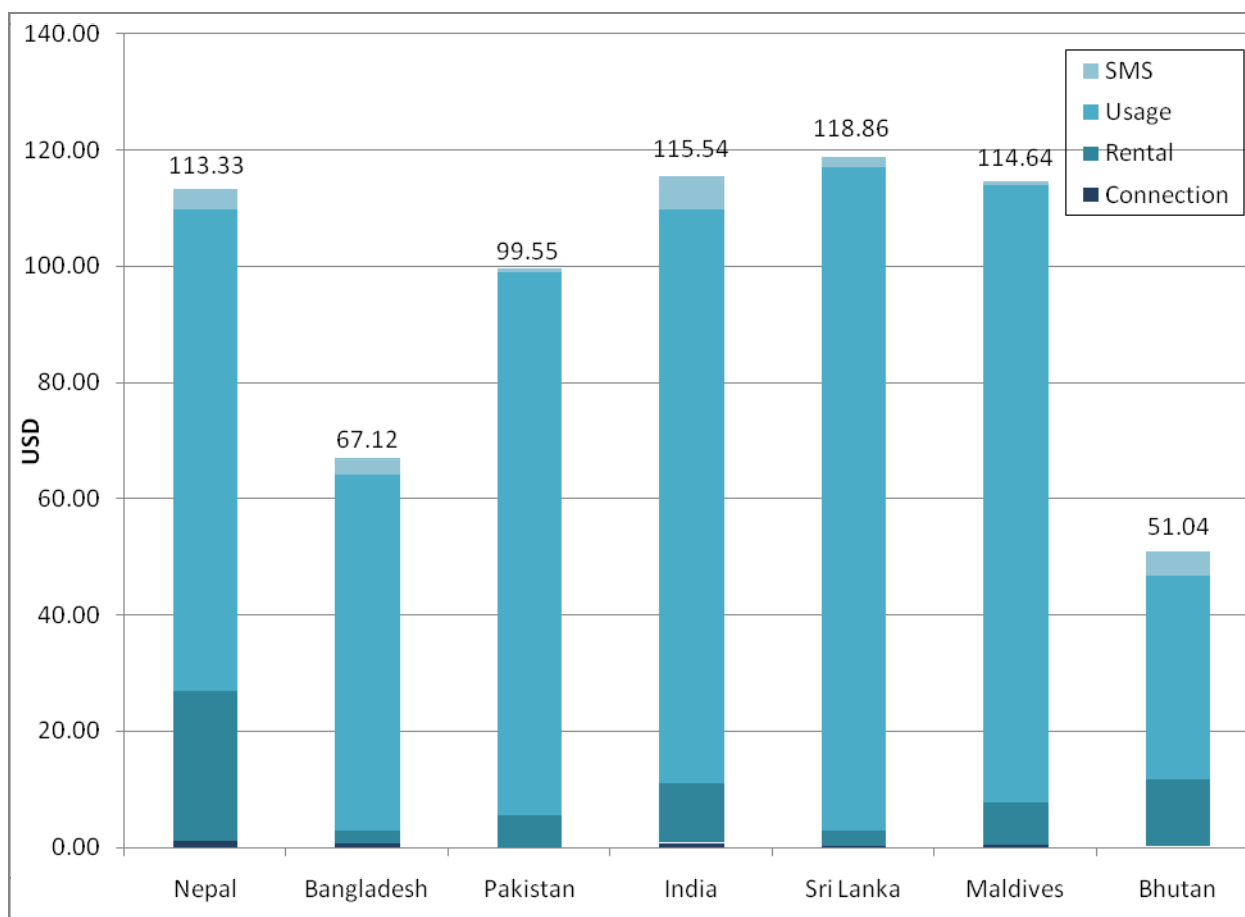
Average postpaid monthly mobile cost for a Low User, USD PPP



Average postpaid monthly mobile cost for a Medium User, USD PPP



Average postpaid monthly mobile cost for a High User, USD PPP



Notes

1. The calculation of a price basket is based on OECD methodology. Details of methodology available at: http://www.teligen.com/t_basket.asp. MMS and Voicemail charges and use were excluded from calculation of the basket.
2. Prepaid and postpaid baskets were based on Minutes of Use (MOU) from Bangladesh (Grameenphone, June 2009), India (TRAI, June 2009), Pakistan (Mobilink, December 2008) and Sri Lanka (Dialog Telekom, June 2009) and SMS data from India (TRAI, June 2009) and Sri Lanka (Operator data, 2009). Tariff data was based on data for October 2009. Subscriber data was based on data individually reported by the respective operators.
3. A weighted average of MOU and SMS usage based on these four countries and their respective subscriber numbers was used for the calculation of prepaid and postpaid baskets for all eight countries.
4. OECD call distributions by duration, destination, and time of day were used since relevant data for all eight countries was not available publicly. Where this data was available, the distributions were not presented in the form required for calculating the baskets.
5. The cheapest tariff plan (based on initial connection charges for prepaid plans and monthly rental charges for postpaid plans) of the largest operator (based on subscriber numbers) were covered for each country.
6. Postpaid packages for Afghanistan were only available to corporate customers and thus were excluded from the basket.
7. Exchange rates for October 2009 are taken from www.oanda.com
8. USD PPP estimates for 2009 were taken from the IMF World Economic Outlook (WEO) Database (October 2009), available at: <http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx>

MOBILE PRICE BASKETS (OCTOBER 2009)

Background

Three kinds of price indicators:

- *T-Baskets, OECD* (http://www.teligen.com/t_basket.asp)
OECD-based and OECD-authorized; takes pricing information from the Teligen Master Tariff Database.
A technique to create comparable user baskets based on actual user profiles.
Takes into consideration most popular plans of the largest operator (based on subscribers) in each country; connection charges and monthly subscription; call, SMS and MMS use; taxes; and free minutes/SMS, etc.
- *The Core ICT Indicators document, Partnership on Measuring ICT for Development* (<http://www.itu.int/ITU-D/ict/partnership/>)
Compares the cost of 100 minutes of use per month (50 minutes of local peak time calling and 50 minutes of local off-peak calling), and is intended to represent an average use basket which is applicable to individual consumers.
- *ITU basket of call charges*
Considers separate indicators for connection charges, rental, SMS and the price of a 3-minute local call.

Why OECD T-Baskets?

- Provides a comprehensive tariff indicator as opposed to other methodologies.
- Has been in use since 1995 with periodic recalibrations and improvements.

Adapted methodology (based on OECD methodology)

1. *Basket composition:*

- The price of the handset and handset subsidies are **not** taken into account in the basket.
- 1/3 of the registration or installation charges (i.e. depreciated over 3 years) where applicable.
- Monthly rental charges and any optional charges that may apply to the package.
- The usage profile will also include a number of SMS messages per month.
- The three user baskets that are taken into consideration are:
 - *Low user basket*
 - *Medium user basket*
 - *High user basket*
- Different baskets were calculated for prepaid and postpaid plans.
- The baskets compositions¹ used are as follows:

	OECD ²	Prepaid basket	Postpaid basket
Voice, minutes of use per month			
Low User	46	75	221
Medium User	119	194	571
High User	256	418	1232
SMS per month			
Low User	33	17	44
Medium User	50	26	67
High User	55	29	73

¹ OECD methodology includes MMS data in addition to call and SMS data; however, due to low use and/or even the lack of provision of this service in the South Asian countries considered here, this component has been removed from our basket comparisons.

² OECD methodology provides call volumes per year. Since data from the countries considered here are available in the form of minutes of use per month or year and not in call volumes, we convert OECD call volumes into minutes of use per year or month, by making use of the average duration of call data (as discussed in point 5).

2. *Call destination (in minutes):*

- a. Local area fixed line: this is used to accommodate the tariffs that have separate charges for the local area. When such charges are not available, this proportion of minutes is included in the 'National fixed line' category.
- b. National fixed line: this covers all fixed line minutes outside the local area, except in cases as noted above.
- c. Same network mobile (On-net): this includes all minutes to mobiles in the same mobile network as the caller. In the case of differences between on-net local and national tariffs, the total on-net minutes are weighted by 65% to 35% respectively and total charges are calculated based on this split.
- d. Other network mobile (Off-net): this includes minutes to all other mobile networks in the caller's country. When the charges are different depending on destination network, the market shares based on subscriber numbers are used for weighting the charges. Up to three other networks will be considered in each country.
- e. Distribution of minutes across different destinations are given as a percentage of the total number of minutes used/month. This distribution was used across all baskets:

Call made to	Low User	Medium User	High User
Local, Fixed line	0.16	0.15	0.14
National, Fixed line	0.08	0.08	0.08
On-net, Mobile	0.52	0.52	0.51
Off-net, Mobile	0.24	0.26	0.28
Voicemail ³	0.00	0.00	0.00

3. *SMS destination:*

- a. On-net: this includes all SMSs to mobiles in the same mobile network as the sender. In the case of differences between on-net local and national tariffs, the total on-net SMSs are weighted by 65% to 35% respectively and total charges are calculated based on this split.
- b. Off-net: this includes SMSs to all other mobile networks in the sender's country. When the charges are different depending on destination network, the market shares based on subscriber numbers are used for weighting the charges. Up to three other networks will be considered in each country.

SMS	Low user	Medium user	High user
On-net	0.65	0.65	0.65
Off-net	0.35	0.35	0.35

4. *Peak/off-peak differentials:* Instead of splitting time and day into distinct times and days the following approach will be used:

- a. Peak at weekdays – most expensive time in a 24-hour day
- b. Off-peak at weekdays – cheapest time in a 24-hour day
- c. Weekend – at daytime Saturdays and/or Sundays
- d. Distribution of minutes over time of day is given as a percentage of the number of minutes:

	Low User	Medium User	High User
Peak	0.48	0.50	0.60
Off peak	0.25	0.24	0.19
Weekend	0.27	0.26	0.21

5. *Call duration:* There will be four separate call durations:

- a. Local and national fixed line calls
- b. Same network mobile calls (On-net)

³ As of February 2006, OECD baskets take voicemail into consideration; however this service/feature is not included in the Asian-based baskets at this time (due to low use and/or even the lack of provision of this service) and the OECD call distributions have been adjusted accordingly.

- c. Other network mobile calls (Off-net)
- d. Voicemail calls
- e. Call durations for each basket:

By duration	Low User	Medium User	High User
Local and national, Fixed line	1.5	1.8	1.7
On-net, Mobile	1.6	1.9	1.9
Off-net, Mobile	1.4	1.7	1.8

6. *Treatment of taxes:* Tariffs include value added tax (VAT), goods and services tax (GST) and/or any other communication levies.
7. *Inclusive minutes and SMS messages:*
 - a. Any inclusive minutes will be deducted from the basket before starting the calculation of usage cost. The inclusive minutes are assumed to be used up with the same calling pattern is described in the basket i.e. the same/peak off-peak ratio and the same distribution across destinations. Where the inclusive minutes are clearly limited to specific destinations or times of day this will be taken into account. No transfer of unused minutes is taken into account.
 - b. Any inclusive SMS message will be deducted from the basket before starting the calculation of SMS cost, up to the number of messages in the basket.
8. *Selection of package and operator:*
 - a. The largest operator (by subscriber numbers) in each country is considered.
 - b. The cheapest tariff plan of the largest operator is considered:
 - for prepaid – plans with the lowest connection charges; and
 - for postpaid – plans with the lowest rental are considered.
 These plans are applied across all three baskets (low, medium and high).⁴
9. *Timeframe:* Basket results are calculated for a period of one month.
10. *Currency calculations:* Tariffs are made available in US\$ and US\$ PPP.
11. *Other assumptions:*
 - a. For most countries considered here, data on call and SMS distributions by destination, time of day and duration were not publicly available. Where available, these distributions were not presented in the form required for calculating the baskets, and available only for average users (i.e. applicable to medium user baskets). As such the latest OECD weights have been utilized (detailed above in points 2, 3, 4, and 5) to calculate the price baskets for all eight countries. While the OECD weights may not reflect Asian usage patterns accurately, they were loosely verified using LIRNEasia's Teleuse@BOP findings and were deemed applicable for use.

Tariff packages

1. Afghanistan – Roshan⁵
 - a. Prepaid – SIM Yaraan
2. Nepal – Nepal Telecom
 - a. Prepaid – Prepaid
 - b. Postpaid – Postpaid
3. Bangladesh – Grameen Phone

⁴ Although it would seem more suitable to apply a plan targeted at low users (assuming plans with low rental + high usage charges are targeted at this group of users) for low user baskets, and a plan targeted at medium and higher users (assuming high rental + low usage charges are targeted at these groups of users) for medium and high user baskets, the difficulties in deciding which plans to consider based on the assumptions mentioned, and the lack of information on who uses which plans (i.e. are we certain that low, medium and high users of mobile opt for the plans targeted at them?) render this almost impossible. Also, the use of varying tariff plans across different user baskets makes the comparison of results from one country to another somewhat arbitrary.

⁵ Postpaid packages are only available to corporate customers and thus were excluded from the basket.

- a. Prepaid – Smile
 - b. Postpaid – Xplore1
4. Pakistan – Mobilink
- a. Prepaid – Jazz Budget
 - b. Postpaid – Indigo Freedom Plan 1
5. India – Bharti Airtel
- a. Prepaid – Regular
 - b. Postpaid – Advance Rental Plan
6. Sri Lanka – Dialog GSM
- a. Prepaid – KIT per-second blaster
 - b. Postpaid – Lite 103
7. Bhutan – B-Mobile
- a. Prepaid – Prepaid
 - b. Postpaid – Super 200 Plan
8. Maldives – Dhiragu
- a. Prepaid – Prepaid
 - b. Postpaid – In touch



Mobile tariff comparison

PRE-PAID		AFGHANISTAN	NEPAL	BANGLADESH	PAKISTAN	INDIA	BHUTAN	SRI LANKA	MALDIVES	
Connection Charges		SIM Yaraan	Pre-paid package	Smile	Jazz Budget	Regular	Prepaid	KIT Standard	Prepaid	
Subscription (rental) fee		2.012	14.948	2.136	1.200	1.042	1.614	1.703	2.313	
Free minutes (in currency)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		2	Local National	1	N/A	N/A National	1	N/A	N/A	
Usage charges	Fixed (local)	Incoming	Peak	N/A	N/A	N/A	N/A	N/A	N/A	
			Off-peak	N/A	N/A	N/A	N/A	N/A	N/A	
			Weekend	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Outgoing	Peak	0.028	0.028	0.016	0.032	0.043	0.043	0.077
			Off-peak	N/A	0.014	N/A	N/A	0.026	N/A	0.042
			Weekend peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Weekend off-peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Incoming	Peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Off-peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			Weekend	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	On-net	Peak	0.026	0.021	0.016	0.032	0.043	0.026	0.077	
		Off-peak	0.010	0.007	N/A	N/A	0.026	N/A	0.042	
		Weekend peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Weekend off-peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Off-net	Peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Off-peak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Weekend	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Call set-up fee		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Free SMSs		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
SMS charges	Standard	0.050	N/A	0.014	N/A	0.032	0.022	N/A	N/A	
	On-net	N/A	0.013	N/A	0.012	N/A	N/A	0.009	0.015	
	Off-net	N/A	0.016	N/A	0.012	N/A	N/A	0.009	0.039	
Exchange rate: = USD 1 =		49.69	75.932	70.234	83	47	46.473	117.42	12.97033	

Source		AFN	NPR	BDT	PKR	INR	BTN	LKR	MVR
		http://www.oanda.com/							

POSTPAID	NEPAL			BANGLADESH			PAKISTAN			INDIA			BHUTAN			SRI LANKA			MALDIVES			
	Postpaid			Xplore1			Indigo Freedom Plan 1			Advanced Rental Plan*			Super 200 Plan			Lite 103			In touch			
Connection Charges	14.882			9.255			1.200			10.634			2.152			4.258			15.343			
Subscription (rental) fee	7.902			0.712			1.501			3.190			4.304			0.852			5.782			
Free minutes (in local currency)	5.268			N/A			N/A			N/A			3.228			N/A			2.313			
Usage charges	Fixed	Local			National			Local			National			CDMA								
		Incoming	Peak	N/A			N/A			N/A			N/A			N/A			N/A			
			Off-peak	0.023			0.025			0.019			0.027			0.043			0.051			
			Weekend	0.016			0.018			0.019			N/A			0.026			0.017			
		Outgoing	Peak	0.016			0.018			N/A			N/A			N/A			N/A			
			Off-peak	0.016			0.018			N/A			N/A			N/A			N/A			
	Weekend		N/A			N/A			N/A			N/A			N/A			0.066				
	On-net	Incoming	Peak	N/A			N/A			N/A			N/A			N/A			N/A			
			Off-peak	0.021			0.021			0.015			0.021			0.043			0.026			
			Weekend	0.013			0.013			N/A			N/A			0.026			0.017			
		Outgoing	Peak	0.013			0.013			N/A			N/A			N/A			N/A			
			Off-peak	0.013			0.013			N/A			N/A			N/A			N/A			
Weekend			N/A			N/A			N/A			N/A			N/A			0.066				
Off-net	Incoming	Peak	N/A			N/A			N/A			N/A			N/A			N/A				
		Off-peak	0.028			0.041			0.019			0.027			0.060			0.051				
		Weekend	0.028			0.041			0.019			N/A			0.034			0.017				
	Outgoing	Peak	0.028			0.041			N/A			N/A			N/A			N/A				
		Off-peak	N/A			N/A			N/A			N/A			N/A			N/A				
		Weekend	N/A			N/A			N/A			N/A			N/A			0.076				
Free SMS																						
SMS charges	Basic charge	N/A			100			N/A			N/A			N/A			N/A			50		
	On-net	N/A			1.000			0.002			0.021			0.032			0.021			N/A		
	Off-net	0.013			N/A			N/A			N/A			N/A			N/A			0.009		
Exchange rate: USD 1 =	On-net	0.016			N/A			N/A			N/A			N/A			N/A			0.039		
	Off-net	NPR			BDT			PKR			INR			BTN			LKR			MVR		
Source		75.932			70.234			83.300			47.020			46.473			117.420			12.970		
		http://www.oanda.com/																				