

# MOBILE PHONES

## A TOOL FOR SOCIAL AND BEHAVIOURAL CHANGE

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A WORKING PAPER





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June 2013

This working paper on, “Mobile Phones: A Tool for Social & Behavioural Change,” is a collaborative effort of UNICEF India with Digital Empowerment Foundation (DEF) as the core implementing partner to execute the project. This project has sought to understand the scope, magnitude and learn from experiences of how mobiles are emerging as viable tools, devices and platforms to meet vital development and governance objectives including social and behaviour change (SBC).

# ACKNOWLEDGEMENT

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This working paper titled, “Mobile Phones: A Tool for Social & Behavioural Change,” is a collaborative work of UNICEF India and Digital Empowerment Foundation.

Many people contributed to the consultation out of which the papers emerged. We sincerely acknowledge and thank the kind presence of Mr. Arun Maira, Member of the Planning Commission of India, for sharing his larger perspective of using technology for SBC including mobiles. The valuable presence of Ms. Sudha P. Rao, Advisor, Women and Child Development, Planning Commission, added the much required meaning to the consultation discussion. We thank the presence and contribution of Mr. Subho Ray, President of the Internet & Mobile Association of India (IAMAI) for his excellent contribution with facts and statistics on how mobiles can be next generational change device for SBC. The contribution of Mr. Milind Pathak, Global Head of New Business, One97, is sincerely acknowledged for adding perspective on value added services on mobiles for SBC.

The presence and contribution of the resource persons representing civil society and other public and private institutions with their best practices using mobiles has been tremendous. The presence of Mr. N. A. Shah Ansari, Director, Radio Namaskar; Mr. Chetan Sharma, CEO, Datamation Foundation; Mr. Kamal Jeet, CEO, Kisan Sanchar; Mr. Sudhanshu Tripathi (Mid-Day Meal Authority, Govt. of Uttar Pradesh); Mr. Nishith Dholakia representing e-Mamta (Govt. of Gujarat); Mr. Santosh Ostwal, CEO & Founder Director, Ossian Agro Automation Pvt.

Ltd.; Madan Mohan Rao, Research Director, Mobile Monday; Ms. Zubeeda B. Quraishy, EZ Vidya Private Ltd; Mr. Murari M. Choudhury, Executive Director, NEEDS; Dr. Sandhya Ramalingam, Head, Program Evaluation from Nokia-Arogya mDiabetes; Ms. Priyanka Dutt, Project Director, BBC Media Action; Mr. Nand Wadhvani, Founding Trustee, The Mother and Child Health and Education Trust; Ms. Preeti Soni from Kutch Mahila Vikas Sangathan, Gujarat; and Mr. Sudhanshu Jain of AIDS Awareness Group (AAG), are sincerely thanked and acknowledged.

We acknowledge the wholehearted support of team UNICEF in India led by Paolo Mefalopulos and supported by invaluable colleagues including Alka Malhotra, Rachana Sharma, Bhai Shelly, Seema Kumar and Sanjay Singh in completing the research compendium. At Digital Empowerment Foundation, we thank the significant role played by Mr. Osama Manzar, Founder Director in successfully bringing out the white paper and the conduction of the consultation. The research and consultation contribution at Digital Empowerment Foundation led by Mr. Syed S. Kazi, Ms. Ritu Srivastava and Ms. Chitra Chauhan is sincerely acknowledged.

Readers, kindly note that this white paper compendium is shared in 3 documents – A White Paper, A Working Paper and A Case Studies Review Paper, all pertaining to widen mobiles for social and behavioural change status, scope and challenges. Readers may ignore the errors and mistakes, if any, as human error and as unintentional.

New Delhi, 2013

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# 1 INTRODUCTION

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## Context & Emerging Opportunities

Today, India has more than 800 million mobile subscriptions – up from 300 million in 2002. This number is expected to exceed 1.2 billion by 2016. The mobile density stands at 70 per 100 and the penetration rate is 51% which is below expectation. The low penetration rate indicates there is still room for growth. The most important driver of mobile growth is the wave of liberalisation and privatization of the telecom sector in 1990s allowing more players to determine the ‘culture’ of mobile deployment, reach and usage.

Competition among mobile operators has resulted in the rapid extension of mobile networks, falling prices of services and mobile devices, and emerging of innovative service and business models contributing to improvisation of information and communication channels and resultant impact on social and development processes. With rising demand for communication network, access and services, especially in rural India, it is estimated that by 2015, more than 90% of the total population will come under the “mobile coverage gap”. This in turn will enhance services and access networks including extending 2G and 3G services. The intra and interdepartmental thrust under the proposed National Mobile Governance Framework is expected to spur service delivery till the last household. The proactive role of government provider like Universal Service Obligation Fund (USOF) is a necessity to step up efforts to lay down mobile networks and expand coverage.

There are increasing numbers of mobile-based initiatives to leverage the widening mobile opportunity. The government, bilateral agencies, private sector players, and the civil society continue to invest in mobile based

practices that can provide local solutions in local context and problem area. For instance, The United Progressive Alliance (UPA) II government during the 65th Independence Day on August 15 (2012) announced a new Har Hath Mein Phone (HHMP) (Mobile in Every Hand) scheme to empower 28 million poor people (6 million families) across India to have access to free connectivity and access. In the emerging mobile space, the common themes of focus and role playing among stakeholders includes network extension into rural areas, network upgrading (focused on semi-urban and urban areas), innovative applications, content, and services, alongside convergence. Specific focus on providing Mobile Value Added Services (MVAS) calls for applications in mHealth, mEducation, mBanking and other development based needs.

With this, there are emerging areas in mobiles for Social and Behavioural Change (SBC) that requires consideration from stakeholders. Mobile communications are emerging effective medium to effect changes through information dissemination, monitoring and tracking, training of frontline workers and interpersonal communication. The desirable



changes are sought to be brought in education, health, environment and livelihood initiatives with the support of mobile technology and solutions. While mobile cannot bring change by itself, it is important to devise ways and means as to how it can be explored to bring desired social and behavioural change. For instance, can mobiles help to manage class routine and attendance of teachers in primary schools under the Sarva Siksha Abhiyan (SSA) programme. The challenge is how mobiles can emerge as tools of change in a context wherein communities have lived by age old cultural practices.

The reach and access of mobile phones is an emerging area of consideration. The challenge is of 4 As - access, availability, autonomy and affordability. The challenge is of connectivity and access through affordable handsets and services to serve millions who are on the margins. It is believed that provisions like a 20\$ smart phone will facilitate m-inclusion and development. To improve the m-culture there is necessity to increase per capita consumption of internet, commerce, services and content. The existing focus on supply driven initiatives should be preceded by moves that spurs demand for m-tools and m-services. There is a challenge in spectrum allocation and effective deployment for which policy and regulatory matters seek urgent focus.

There are multiple reasons and ways to collaborate for the mobile stakeholders. This is further widened by government interventions through Universal Service obligation fund (USOF) and National Optical Fiber Network (NOFN) project. The suggestion of a centralized corpus fund to roll out mobile based social and development practices by the NGOs/CSOs is relevant and contemporary. The existing gap between potential users and beneficiaries and suppliers must be bridged. Improvisation and scalability shall require that special incubation and accelerator platforms are created to nurture and encourage young mobile entrepreneurs. Given UNICEF's focus

on sustainable and effective communications for development thrust involving the isolated and vulnerable groups, mobile application based services are likely to prove valuable in achieving programming goals in SBC.

The paper presents the key areas of emphasis in the growing mobile for development space in India especially how mobiles are contributing to social and behavioural changes, the limitations as well as the scope to expand the social space for mobiles. Substance of the paper has been derived from research and field inputs as well as from two days of consultation involving multiple stakeholders in mobile sector in second week of May. The paper is intended to assist stakeholders to get an overview of issues, scope and relevance in mobile to support social and behavioural change efforts. The paper is hoped to emerge as a knowledge guide for stakeholders to rally around issues and factors that will augment mobile penetration and usage for desirable and need based social, behavioural and development changes.

## 2 MOBILE STATUS OVERVIEW REACH AND ACCESS

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India is an emerging 'mobile' country. The country has the second-largest mobile phone user in the world with nearly 900 million subscriptions (see Table 1). In 2011 alone, 142 million mobile-cellular subscriptions were added in India, twice as many as in the whole of Africa, and more than in the Arab States, Commonwealth of Independent States (CIS) and Europe put together<sup>1</sup>. Total mobile subscription stood at 862 million as on 31st January, 2013<sup>2</sup>. The natural advantage of geography (size) and population has contributed to this emergence. The total mobile penetration in India is expected to increase from 51 per cent in 2012 to 72 per cent by the end of 2016<sup>3</sup>. It is believed that high mobile subscriber base holds a lot of promise for the growth and development of mobile network and infrastructure along with content and services<sup>4</sup>. The resultant social, behavioural and development changes are a foregone conclusion.

### DEMOGRAPHIC/NETWORK TRENDS

While almost half of all urban Indians are mobile, only 1 in 10 rural Indians are mobile<sup>5</sup>. The 25-35 years age group is the single largest mobile user group. However, 19-24 years ones show the highest 'penetration' as well as the highest 'propensity' to own mobile phones. Only 1 in 5 mobile Indian is a woman. While 1 in 3 Indian men are mobile, only 1 in 10 Indian women are mobile. The North zone is the single largest mobile region, though mobile penetration is highest in East zone. Students form the largest occupational group of mobile users, followed by self-employed. The average monthly household income of mobile user is 2.3 times that of mobile non-users. 1 in 5 uses internet on mobile (WAP/GPRS/EDGE). Over half of all 'mobile internet users' go online

daily. In majority there is 'male' skew in the user base. Half of the cellular operators have relatively more 'mature' user profiles in age. Half of the operators have relatively higher proportion of their users coming from smaller 'tier 4' districts. The rest half have relatively more coming from biggest 'tier 1' districts.

### WIRELESS (MOBILE) TELE-DENSITY

The mobile (wireless) tele-density has seen an increasing trend in recent times (see Figure 1). The overall wireless Tele-density in India as of January 2013 is 70.5<sup>6</sup> (TRAI). The total mobile penetration in India stood at 76% with only 26% unique subscriber penetration (GSMA, 2012). Rural Tele-density is at 39.26 as of January, 2013 (TRAI) while the urban density stood at 142.10.





**Table 1: Highlights on Telecom Subscription Data as on 31st January 2013**

<b>Particulars</b>	<b>Wireless</b>	<b>Wireline</b>	<b>Total (Wireless + Wireline)</b>
Total Subscribers (Millions)	862.62	30.52	<b>893.15</b>
Total Net Monthly Additions (Millions)	-2.10	-0.27	<b>-2.36</b>
Monthly Growth (%)	-0.24%	-0.86%	<b>-0.26%</b>
Urban Subscribers (Millions)	528.88	23.66	<b>552.55</b>
Urban Subscribers			
Net Monthly Additions (Millions)	-4.24	-0.17	<b>-4.41</b>
Monthly Growth (%)	-0.80%	-0.73%	<b>-0.79%</b>
Rural Subscribers (Millions)	333.74	6.86	<b>340.60</b>
Rural Subscribers			
Net Monthly Additions (Millions)	2.14	-0.09	<b>2.05</b>
Monthly Growth (%)	0.65%	-1.33%	<b>0.61%</b>
Overall Teledensity*	70.57	2.50	<b>73.07</b>
Urban Teledensity*	142.10	6.36	<b>148.46</b>
Rural Teledensity*	39.26	0.81	<b>40.07</b>
Share of Urban Subscribers	61.31%	77.54%	<b>61.87%</b>
Share of Rural Subscribers	38.69%	22.46%	<b>38.13%</b>

Source: TRAI

## THE URBAN – RURAL MOBILE BASE

Over the years in recent times, rural India has been active mobile subscribers. As of January 2013, the rural subscribers' base grew by 6.64 million with monthly growth rate of 1.99%<sup>7</sup>. The total rural subscribers' base stood at 333.74 million. During the same period, the urban subscribers base grew at (- 4.24 Millions) with monthly growth at (- 0.80%). Total mobile urban subscribers stood at 528.88 million. The overall share of urban mobile subscribers to the total mobile subscription stood at 61.31%, while the share of rural subscribers 38.69% as in January 2013.

## THE MOBILE OUTREACH ACROSS STATES

The outreach of mobiles have increased manifold across all the states of India (Table 2). The three union territories top the list with Daman & Diu having the highest 76% mobile phone households, followed by Andaman & Nicobar Islands with 72.1% and National Capital Territory of Delhi with 68.2% households using mobile phones.

## DIGITAL, GENDER INCLUSION AND MOBILES

The emergence of mobiles is having tremendous impact in digital inclusion in India.

<sup>1</sup> Key statistical highlights: ITU data release June 2012, [http://www.itu.int/ITU-D/ict/statistics/material/pdf/2011%20Statistical%20highlights\\_June\\_2012.pdf](http://www.itu.int/ITU-D/ict/statistics/material/pdf/2011%20Statistical%20highlights_June_2012.pdf)

<sup>2</sup> Highlights on Telecom Subscription Data as on 31st January 2013, <http://www.trai.gov.in/WriteReadData/WhatsNew/Documents/PR-TSD-Jan2013.pdf>

<sup>3</sup> South Asian countries to witness massive mobile broadband growth, Apr 16, 2013, <http://www.cxotoday.com/story/south-asia-to-witness-massive-mobile-broadband-growth/>

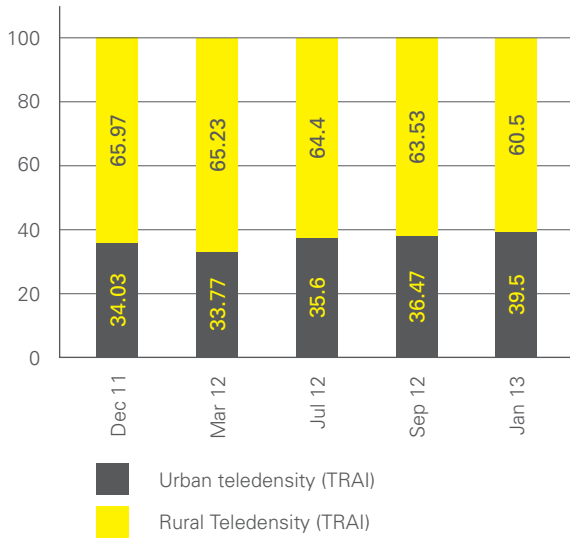
<sup>4</sup> <http://www.cxotoday.com/story/south-asia-to-witness-massive-mobile-broadband-growth/>

<sup>5</sup> Mobile Internet in India, 2012, Internet & Mobile Association of India (IAMAI), New Delhi

<sup>6</sup> TRAI

<sup>7</sup> Highlights on Telecom Subscription Data as on 31st January 2013, TRAI

**Figure 1: Wireless telecom tele-density in India (Dec 2011-Jan 2013)**

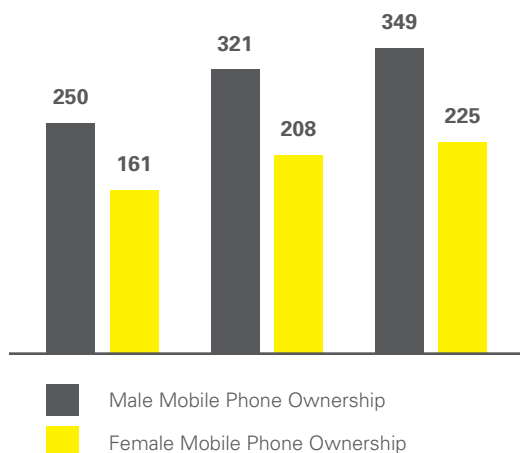


Source: TRAI

**Figure 2: Women Mobile Reach  
Women's Mobile Phone Ownership is Soaring  
Indian Males vs. Females - 2009-2011**

There are now 225 million female mobile phone subscribers in India, a 40% increase over the figure in 2009

India: Male and Female Mobile ownership (Millions)



Source: "Empowering Women through Mobile" (2011-12), Digital Empowerment Foundation

India today has a massive 333.74 million rural mobile subscribers (January 2013, TRAI). Out of 38 Million internet users in Rural India, 12% access internet on their mobile phones<sup>8</sup>. Mobiles have provided platform to transact, trade and exchange in commerce and business. It has raised the social bars of underserved groups and population like women, scheduled castes and tribes largely through information and communication empowerment. Increase in subscribers and penetration of mobiles is expected to boost the government's ambitious project to give broadband connectivity to 250,000 villages under the National Optical Fiber Network (NOFN) plan<sup>9</sup>. The gender perspective of mobile outreach is an empowering one (Figure 2). As in 2011, there were 225 million subscribers of mobile among women, a jump of 40% from 2009.

## MOBILE MARKET/ECONOMICS

The mobile market has been increasing at a rapid pace reflecting surge in demand at a geometrical proportion. The revenues from mobile services stood at Rs.1.1 trillion in 2012. Private operators hold 87.73% of the wireless market share (based on subscriber base) where as BSNL and MTNL, the two PSU operators hold only 12.27% market share. While this rise reflects the growing customer base, the factors that led to this expansion has played its contributory role. The mobile tariffs in India have become among the lowest in the world. A new mobile connection can be activated with a monthly commitment of 15 cents only! Average price of mobile device in India among users who access Internet using mobile devices is Rs. 8,250. The increase in Mobile Value Added Services (MVAS) has contributed in increasing the mobile base. Currently valued at over US\$5 billion, Indian MVAS industry is expected to reach well over US\$6 billion by 2013. The changing dynamics of mobiles including features that are user friendly have led to surge in demand for the hand phone and services.



**Table 2: Mobile subscriber base in India**

State	Wireless telecom subscriber base (January 2013)	Wireless telecom subscriber base (February 2013)	Population	Percentage of mobile Penetration (approx.)
Andhra Pradesh	63774816	64119392	84,655,533	75
Assam	14274011	14290054	31,169,272	45
Bihar	60544688	60729012	103,804,637	58
Delhi	39872100	40284855	11,007,839	365
Gujarat	50753613	51228805	60,383,628	84
Haryana	19312194	19529358	25,353,081	77
Himachal Pradesh	6797654	6890093	6,856,509	100.5
Jammu & Kashmir	6716890	6750645	12,548,926	54
Karnataka	52506775	52448004	61,130,704	86
Kerala	31003202	30698349	33,387,677	92
Kolkata	22548621	21201161	4,486,679	472
Madhya Pradesh	50842183	51427067	72,597,565	70
Maharashtra	66943083	67729933	112,372,972	60
Mumbai	31359550	29899619	12,478,447	239
North East	8725595	8829898	38,857,769	23
Odisha	24469501	24308041	41,947,358	58
Punjab	29014820	29278748	27,704,236	106
Rajasthan	46957694	47828422	68,621,012	70
Tamil Nadu (including Chennai)	72173592	71811035	72,138,958	99.5
UP (East)	72247564	73122951	11200000	65
UP (West)	48474342	48481217	31000000	156
West Bengal	43311298	40773438	91,347,736	45
<b>Total</b>	<b>862623786</b>	<b>861660097</b>	<b>1,210,193,422</b>	<b>71</b>

Source: Highlights on Telecom Subscription Data as on 28th February 2013, Telecom Regulatory Authority of India (TRAI)

## WHAT IT INDICATES

The mobile 'culture' in India has arrived. With rising mobile subscribers and users of mobiles, India provides a wider scope to expand connectivity, access, usage and impact. With substantive number of operators, service providers, the mobile space today is more competitive than before. With continuous innovative subscription

plan, service innovations, the density and inclusivity of mobile users is expanding. The promising nature of mobiles to provide innovative services in mEducation, mHealth and mFinance is expected to spur this demand curve. The exploding numbers of mobiles provides stakeholders in India an unprecedented opportunity to intervene and serve the social and development needs judiciously and responsibly.

<sup>8</sup> [http://www.iamai.in/Upload/Research/9320123264601/ICube\\_2012\\_Rural\\_Internet\\_Final\\_62.pdf](http://www.iamai.in/Upload/Research/9320123264601/ICube_2012_Rural_Internet_Final_62.pdf)

<sup>9</sup> Government of India has approved on 25-10-2011 the setting up of National Optical Fiber Network (NOFN) to provide connectivity to all the 2,50,000 Gram Panchayats(GPs) in the country. This would ensure broadband connectivity with adequate bandwidth. This is to be achieved utilizing the existing optical fiber and extending it to the Gram Panchayats; accessed at <http://www.bbnl.nic.in/content/faq/national-optical-fibre-network.php>

### The Mobile Development Ecosystem



The broad ecosystem for mobile in terms of its relation with infrastructure, hardware, software, access, connectivity, content, regulation, and so on



# 3 MOBILE PHONE AS A TOOL FOR ENGAGING STAKEHOLDERS

The mobile phone has moved beyond being a mere device to become a Key “social object” present in every aspect of our “daily lives” – ITU, 2004

## 1. MOBILE AS SOCIAL ‘OBJECT’

Increasingly the mobile phone has moved beyond being a mere technical device to becoming a key “social object” in every aspect of daily life in India. With the spread of “anywhere, anytime” communication infrastructures, mobile have increased convenience, better access to information and streamlined access to social and economic entitlements. The expanded mobile networks have triggered a new sense of social identity for various groups of people, e.g. youth and women. The effects of mobile phones on cultural and political identity, which are sub-sets of collective identity, are equally profound. Mobile phones have flattened traditional hierarchical structures, including the information architecture, and enhanced the accessibility to social and political institutions. Small holder farmers in Uttar Pradesh and Haryana have been empowered financially through the timely use of mobile phones for providing information and advice on agriculture. Women victims in Kutch district of Gujarat are getting legal aid services to deal with physical, mental stress and abusive situations through a helpline ‘Hello Sakhi’ that provisions usage of mobile to enter grievance and receive legal guidance.

## 2. THE MOBILE THRUST

Rapid expansion in deployment, penetration and subscribers for mobiles and absence of other sustainable information and communication technology media have prompted the public, private and the social sector to exploit mobile communication in India.

## The Government Focus

The few efforts of the government towards mobile based initiatives have been at two levels – Central and State levels. At central level, there are few pilot initiatives to explore the utility and relevance of mobiles in achieving departmental and programme objectives. The Mother and Child Tracking System (MCTS) programme launched by the Ministry of Health and Family Welfare in 2010 is one such specific intervention (see Box 1). The Transparent Targeted Public Distribution System (TTPDS) initiative launched by the Department of Food and Civil Supplies in Uttar Pradesh in 2009-10 have provisions for mobile phone usage to deliver information services pertaining to food grains delivery via SMS services. The pilot in 2 districts of Bahraich and Jalaun has been completed in 2012.

### Box 1: Mother and Child Tracking System (MCTS), Ministry of H&FW, India

A name, address and telephone based Mother and Child Tracking System (MCTS) is a new initiative of the Ministry of Health and Family Welfare since 2010, for ensuring delivery of full spectrum of healthcare and immunization services to pregnant women and children up to 5 years of age. The system employs mobile-based SMS technology to communicate with grass roots level health care services providers, health and family welfare policy makers, health managers and health administrators at different tiers of the health care delivery system.

## The m-Governance Framework

This is the singular most focused approach towards mobile enabled service delivery to

citizens. The m-Governance focus under National e-Governance Plan (NeGP) launched by Department of Electronics & IT (Ministry of Communications & IT) in 2012, is an extension to NeGP vision and in cognizance of the vast mobile subscriber base in the country. It provisions that the websites of all government departments and agencies be made mobile compliant. It is proposed to integrate at least 125 Government Departments with Mobile Services Delivery Gateway (MSDG) for deployment and delivery of mobile-based services by end of FY 2012-13. Framework available at <http://www.deity.gov.in/content/framework-mobile-governance>

Switchin to M-Governance	
Framework for mobile governance notified in The Gazette of India, Feb 2012	Huge potential to reach out to voters in rural areas through m-governance
Uniform/single long and short codes – 51969 and 166 – obtained for M-governance	Broadband penetration is 15.1 million while mobile reaches 906.6 million (36.9% in rural areas). Mobile phone subscription to grow to 1 billion by Dec 2013
All government websites to be made mobile-compliant	

### The Private Sector Thrust

The role of the mobile operators, service providers and software developers has seen an increasing presence in India over the past one-decade and more. One singular role of the cellular operators in India has been its contribution to extend the network of mobile reach in all 640 districts in India reaching out to more than 800 million subscribers. As in January 2013, the thirteen major operators including the two government owned BSNL and MTNL has reached out to 862.6 million wireless subscribers in both urban and rural India.

Helped by rising penetration of handsets, India's Mobile Value Added Solution (MVAS)

service providers have expanded the innovation basket to provide services catering to high and low income user segments. The focus has shifted to mEducation, mEntertainment, mFinance and mHealth application areas. The emphasis is on the collaborative effort across mobile network operators, telecom equipment vendors and mobile service content providers<sup>10</sup>.

The role of the mobile software developers in innovations enabling solutions to development objectives has seen expansions of late. The contribution is seen towards innovative ICT solutions, software, and applications for empowering people and enabling sustainable development. Specialisations have emerged in developing solutions in the areas of public health, education, skills development and training, enterprise development and livelihood generation, environment, disaster management and agriculture (see Box 3).

### Box 3: Freedom HIV/AIDS

HIV/AIDS is an India based initiative on HIV/AIDS awareness using mobile phone games, and is considered as first ever-social initiative on the mobile devices. Launched in 2005 Freedom HIV/AIDS, launched by ZMQ, comprises of four mobile games targeting different mind-sets and psychology of mobile users. In a span of 15 months, there have been a download of 10.3 million game sessions.

[www.freedomhivaids.in/FreedomHivAids.htm](http://www.freedomhivaids.in/FreedomHivAids.htm)

### The Social Sector Thrust

The role of Non-Governmental Organisations (NGOs) assumes significance in view of their wider engagement in civic and development initiatives. Of late, the social sector has seen increasing use of ICTs to deliver solutions and service serving underserved groups and communities. The widening mobile space is being explored to provide low cost and

<sup>10</sup> 'Future Thought of Business (FTOB): MVAS', 2012, a joint report by Wipro Technologies, the global IT consulting and outsourcing arm of Wipro Ltd, and Internet and Mobile Association of India (IAMAI)

<sup>11</sup> Lee, Dayoung, 2009, The Impact of Mobile Phones on the Status of Women in India, Dept. of Economics Stanford University, [http://economics.stanford.edu/files/Honors\\_Theses/Theses\\_2009/Lee,%20D.%202009.pdf](http://economics.stanford.edu/files/Honors_Theses/Theses_2009/Lee,%20D.%202009.pdf)



#### Box 4: Project Mahila Shakti

The project 'Mahila Shakti' in Varanasi in Uttar Pradesh is a programme of women empowerment through education initiative with effective communication mechanism. The programme provisions use of mobile phone to train women for their day to day conversation, increase business and improve their personality. Additionally, the mobile phone is used to enable the illiterate women to recognise the digits and alphabets depicted on the key pad.

innovative solutions to address old and new service delivery challenges in areas like education, health and women empowerment (see Box 4).

### 3. EXPLORING MOBILE AS A TOOL FOR SOCIAL AND BEHAVIOR CHANGE

The effective usage of mobiles in India has found specialisations in key intervention methods. Stakeholders have adopted these multiple ways either in single or multiple modes of interventions in chosen areas of experimentation – education, health, gender empowerment, and disaster management. The priority measures included – information dissemination, monitoring & tracking, training, and interpersonal communication purposes (see figure 3).

#### a. Information Dissemination

The empowering role of mobiles through critical information dissemination has been realized. Features unique to mobile phones, such as portability, text messaging and data downloading, has allowed common users to participate in the social and economic processes through timely and accurate information and greater flexibility of communication<sup>11</sup>. Mobile based learning has increased access for education content dissemination for those in difficult context. The portable devise has empowered communities to access health resource needs more so in rural India.

Figure 3: Mobile for Social & Behavioural Change



#### b. Monitoring & Tracking

The capacity of mobile platforms to monitor and track development schemes/programmes has found quiet but sustainable acceptance in managing the life cycle of a project. The capacity of the mobile as a tool to track attendance, presence of project staff, maintaining time table, sending progress updates have been demonstrated.

#### c. Training of Front Line Workers & Interpersonal Communication

In recent times, the mobile devise has been experimented to serve training needs in front end service delivery. This is especially found relevance in flagship programmes like National Rural Health Mission (NRHM) in health domain. Equipping each worker with a mobile phone and adequate training serves vast unmet needs of health information dissemination, tracking of progress of health schemes, and solves key health issues on the spot through interpersonal communication support services.

# 4 MOBILE AS A TOOL FOR SBC

## AN OVERVIEW OF SELECT CASE PRACTICES

Mobile innovations are delivering home-grown solutions worldwide and have shown promising results in India. The challenge is to scale up these innovations and success stories for greater social and economic impacts across length and breadth of India by 2020.

### 1. MOBILES FOR INFORMATION DISSEMINATION

The following are highlights of mobile projects in information dissemination implemented in different locations in India.

#### Let us go to school, Odisha

“Chala Skul Ku Jiba” (Let us go to school) is an initiative of Radio Namaskar, a community radio FM station. The project, initiated since 2010 in Puri District, Odisha, seeks to enroll dropouts’ students back to school using a dedicated mobile service integrated with a community radio network. So far with this process 165 schools in 4 blocks in Puri District declared as ZERO DROPOUT SCHOOL by the local administration.

#### MHSM SMS Toolkit, Uttar Pradesh

The project Maternal Health Services on Mobile (SMS Toolkit) – MHSM, aims at providing critical Reproductive and Child Health (RCH) related information services to the pregnant and lactating women apart from their families and health workers through mobile phones, using localized SMSs in Hindi. The project is implemented in the Ghatampur block of Uttar Pradesh Kanpur Dehat (Rural) District of Uttar Pradesh.

#### Kisan Sanchar, Haryana

Kisan Sanchar is an interactive platform to broadcast text and voice messages on the mobile phones of individual farmers. It delivers

free of cost knowledge content developed by Krishi Vigyan Kendras and various Agricultural Universities in form of text and voice messages to the member farmers. Since 2010 the project has broadcasted more than 1500 messages to approximately 33066 farmers in 7 states who are being benefitted from free of cost services.

#### Scope for Project Improvisation & Scalability

The Projects are considered to be scalable both technology and programme wise. The areas of improvisation identified are – large-scale database management, local language support, collaboration with partners, community ownership and management, and value added elements like decentralized call centre facility, integration of IVRS, and offline follow ups. Project sustainability is a concern area in all the projects in medium and long term.

### 2. MOBILES FOR PROGRAMME MONITORING/TRACKING

The following are highlights of mobile projects in programme monitoring/tracking implemented in different locations in India.

#### IVRS based Daily Monitoring System (DMS), Uttar Pradesh

The project IVRS (Interactive Voice Response System) based Daily Monitoring System (DMS) of the Mid-Day Meal Scheme is an initiative of the Mid-Day Meal Authority of Government of Uttar Pradesh. The project





uses an automated MIS where data of children availing mid-day meal are made available on daily basis. The system is conceived on the basis of an interface between computer and mobile phone. The project since March 2010 has codified around 1.5 lac schools with mid-day meal data.

### **E-Mamta – Mother & Child Tracking System (MCTS), Gujarat**

The project 'E-Mamta'- Mother & Child Tracking System (MCTS) is uniquely designed and executed in government health facility across Gujarat to accommodate for gaps in ensuring comprehensive maternal and child health services in rural as well urban areas. Since 2010, the application is being implemented in all 26 districts of Gujarat. Value added features under E-Mamta included SMS service, Online Immunization record, weight chart for pregnant woman.

### **Nano Ganesh, Maharashtra**

Nano Ganesh, first launched in 2008, is a mobile-based wireless remote control and alarm system for the water pumps, appropriately designed taking into consideration the unfavourable conditions in the irrigation zone. It is specially designed to be robust to perform efficiently in the rural atmosphere where problems like voltage fluctuations, shock hazards, open wiring and marshy terrain are common.

#### **Scope for Project Improvisation & Scalability**

The projects have their inherent areas of strengths like simplicity, easy to implement, low cost model, and environmentally compatible. Areas of improvisation identified are – large scale data generated can be processed for project improvisation, need for real time data collection, lack of interactive platform, increase efficiency in service reach, advocacy and educational programme, social marketing, explore partnership and funding, and research and project evaluation. It requires further optimum project design and implementation with judicious resource allocation.

### **3. MOBILES FOR TRAINING OF FRONTLINE WORKERS AND INTERPERSONAL COMMUNICATION**

The following are highlights of mobile projects in training of frontline workers and interpersonal communication using mobile phones as implemented in different locations in India.

#### **BridgelT India, Tamil Nadu**

BridgelT India uses a standard mobile phone to improve the quality of teaching. The project was started in March 2011. The objectives of BridgelT India are: DIGITAL TEACHERS: To integrate the mobile platform into teaching and evaluate its effectiveness; ENGAGED STUDENTS: To evaluate learning improvements due to the integration of mobile technology, content, and methodologies and; SCALABLE MODELS: To broaden impact of mobile technology in education, evaluate sustainable models, and identify how to scale at low increment cost.

#### **Mobile Kunji, Bihar**

The basic problem faced by the health workers across the State of Bihar is lack of proper tools through which they could convince the rural families on preventive and curative health behaviours. The project since 2010 provides frontline health workers with innovative job aid called 'Mobile Kunji' to function better in health care services delivery. With the aid of Mobile Kunji, workers with adequate training use mobile tools to effectively disperse health messages and increases the demand of health services.

#### **CommCare Jharkhand**

CommCare is a job aid tool. This application contains mobile illustrations and audio messages covering need-to-know topics in antenatal care which an ASHA/Sahiya can use to educated pregnant women in her village, regardless of their level of literacy through mobiles. CommCare leverages multimedia capabilities of common phones to deliver educational information to anyone, regardless of their level of literacy.

### HealthPhone, Maharashtra

The project was launched to provide families with their own personal mobile reference library and guide to better health practices. HealthPhone's health and nutrition content includes timing births, safe motherhood and new-born health, breastfeeding, immunization, diarrhoea, and more serious illnesses. The content is pre-loaded on popular low-cost models of mobile phones – no signal is required, nor cost and knowledge to download videos and other media.

### mDiabetes, All India

mDiabetes was launched across India in January 2012. The objective of this initiative was to disseminate vital information about Type 2 Diabetes and what life style changes one should make to prevent diabetes through mobile alerts in 12 languages. Mobile phone users are sent these carefully designed alerts which would be useful reminders for adults about healthy living as a way to prevent diabetes.

### Hello Sakhi, Gujarat

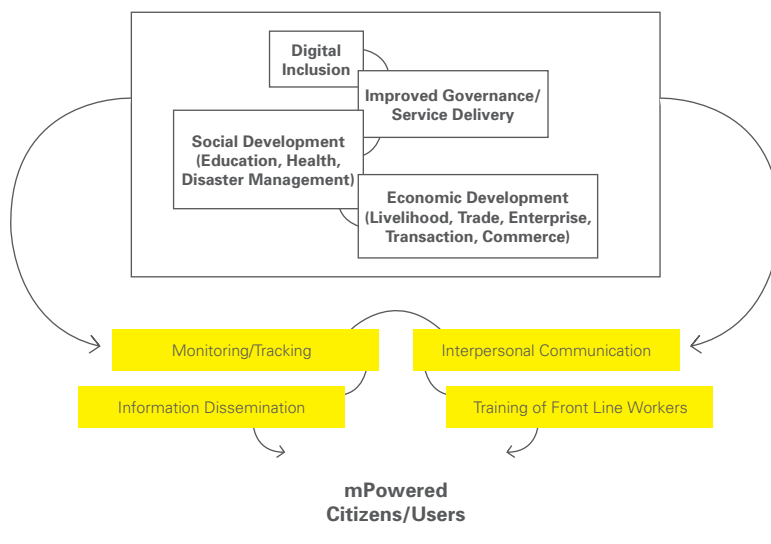
The project is a helpline, situated at the women police station in Bhuj city of Kutch district in

Gujarat. The project aims at responding directly to the victims at 3 levels: listening to their problems and try to provide counselling; refer them to nearest counselling centre run by KMVS for meeting with counsellors; advise the callers on legal matters surrounding their issues and facilitate the callers for filing FIRs, court cases and further legal action. The project uses mobile applications like portals, voice SMSes, conference facilities to connect with the callers to send information and receive feedbacks.

### Scope for Project Improvisation & Scalability

The highlighted projects are scalable. The reasons identified included – low cost model, online and offline compatibility in service delivery and demand and need driven. Areas of improvisation included – integration with government agencies, content localisation, technology convergence, affordable device and features compatibility, need for interactive voice component, addition of value added services along with core services. Project sustainability is a continued challenge for the projects. Policy advocacy and support is an area for consideration. The need for research on project outcome and creating procedures for idea replication is being pointed out.

### The Mobile India Development Ecosystem



# 5 EMERGING AREAS FOR CONSIDERATION

The adoption and use of mobiles for development has structural, functional, operational and deployment significance. The realization of the full potential of the cell phone depends on policy, infrastructural, technological, service related and other challenges. There are emerging areas that seek research, policy and programme considerations from stakeholders to realize optimum gains from mobile based projects having relevance in social and behavioural changes.

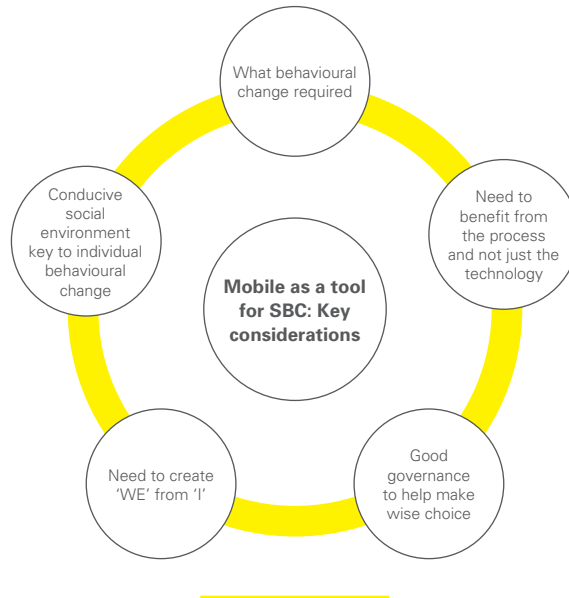
1. Tools of communication including mobiles are effective medium to effect changes in social, cultural and development space through the human engagement factor. Question is what social and behavior changes are sought for.
2. The challenge is in defining and accepting what constitutes a good behavior change and in current scenario where the mobile can also become a 'weapon of mass destruction', how effectively it can be used for a better change in society.
3. Mobile technology has demonstrative capacity to induce desired based change. The choice of technology has to be appropriate to serve focused groups and beneficiaries.
4. One emerging issue is how people arrive at an understanding or decisions when there is plenty of data in mobile domain. Data collation from different sources and analysis will give in more authenticity and close to real understanding of needs and services relevant for programme and policy fields. As an approach, there is need to develop consensus and create "we" from an "I" towards better plan, design, method and delivery of services using technology including mobiles.

"What we want is a good behaviour change, and in current scenario where the mobile can also become a weapon of mass destruction, how we can effectively use it for a better change." – Arun Maira, Member, Planning Commission, India

"The challenge is how we can help change behaviours in village through mobiles when the behaviours they practice are substantiated by myth." – A Participant

"Mobile is a critical instrument to communicate and at the same time it cannot bring change by itself through information. What we need to assess is how we can sow seeds of social change through mobiles." – Poalo Mefalopulos, Chief, Communication for Development, UNICEF, India

**Figure 4: Mobile as a tool for SBC:  
Key Considerations**



5. Mobile is an omnipresent technology that should be used to promote changes. The question is how to promote changes in behavior for improvement of life situations. Mobile communication for development is not a soft science; it is a rigorous field which is substantiated with several theories, research and evidence.
6. There are number of players in the mobile space – Government, private sector, bilateral agencies, NGOs/CSOs, implementing agencies and others. The areas for consideration are: do we need more mobile innovations and incubations of new ideas to extract mobile benefits for social change purpose. Do we need more of research and networking? What is the scope for collaboration? What pattern suits partnership among stakeholders?
7. Mobile is a critical instrument to communicate and at the same time it cannot bring change by itself through information. What one can assess is how seeds of social change can be sowed.

The question is how stakeholders can help change behaviours in villages through mobiles when the behaviours they practice are substantiated by age-old myth.

“Telephony has caused change in lower strata through various intervention but the need of the hour is a 20\$ smart phone which is a challenge in order to facilitate inclusion and development.” – Milind Pathak, Global Head of New Business, one97

8. The reach and access of mobile phones is an emerging area of consideration. The challenge is of access, availability, autonomy and affordability as the 4 As in the list of problems. The question relevant is how we can provide connectivity and access through affordable handsets and services to serve millions who are on the margins?
9. Demographic data is not available regarding the impact, reach of mobile phones. Political economy and sociological



“Political Economy and sociological research are important in addressing how mobile phones are impinging on social structure. There should be incorporation of anthropological and sociological data which is more useful in understanding mobile demographics.” – Dr Subho Ray, President, Internet and Mobile Association of India (IAMAI)

research are important in addressing how mobile phones are impinging on social structure. There should be incorporation of anthropological and sociological data that is more useful in understanding mobile-based demographics and utility trends in seeking entitlements and services.

10. Sustainable mobile inclusion is the key. There is newfound change in the transmission of information through emergence of smart phones. To improve the condition there should be increase in per capita consumption of Internet, commerce and content. Telephony has caused changes in the lower strata through various intervention but the need of the hour is a 20\$ smart phone which is a challenge in order to facilitate inclusion and development.
11. The local experts or voices should be bought on board in order to understand and explore the mobile space. The focus on the ecosystem is necessary. Hyper locality is the key (focusing real time on the needs of the serving community).
12. Cross subsidisation will help to propel experiments on mobiles. Evolving the content scenario is fundamental requirement along with effective collaboration. Gap analysis helps better design plan and implementation.
13. Uneven sectorial and geographical distribution is area of consideration. There are not many initiatives in regions like the North East India. Technology (mobile) exclusion of marginalised must be addressed.
14. There are number of case studies done on mobile based social and behavioural change programmes but challenges lay in scaling up. There is need to identify the context first: is it for profit, or for social development. For instance, the challenge of manufacturing a 20\$ mobile phone can have bearing on both the private and social sector.
15. In most of the instances it is observed that supply of platforms, content, services overtakes the demand for it. There is need to address the social and behavior change not by focusing on supply of initiatives alone but by generating demand and addressing the ecosystem in doing so.
16. The question that emerges is how information can be disseminated through the most basic mobile phones usually available with the people. There are instances wherein information through Secure Digital (SD) Card can be disseminated to areas that are not covered by the Internet. For instance in Bihar, people go to small kiosk to get data stored in their SD cards, which are usually movies and songs.
17. There requires a comprehensive exercise to do the detailing of undertaking ethnographic account of communities and society to address the impact or social and behavioural change through mobiles. For instance, the most important features for villagers are the in-built radio and torch in their phones. In a context, when the entire world is made available on the internet through phones, it's an important aspect to watch the child who accesses the information via phone. It is important to address the top-down to bottom-up concerns.
18. There is need for more diverse research on the mobile space for individual and

social changes. Approaches like ecosystem partnership and amplification of human resources management will assist to understand mobile users and impacts. Census, NSSO, Leadership surveys are source of both quantitative and qualitative data towards this.

19. Many development agencies have no window to address social change as they plan a project for one year. There should be at least a 5 year plan when projects are planned at a ground level. For instance,

a project such as mobile fund through m-Wallet transfer to provide cash services to beneficiaries will aid lot of people if it is planned for a mid-term to long term period.

20. Users must be the prime factor in programme design, and accordingly plans devised to effect changes through mobiles. It has been felt that it is user who is smart not the phone, phone is a medium. So the need is to enable the people to utilise the medium smartly for individual and collective gains.

**Figure 5: Mobiles as a tool for SBC: Project Hurdles**



# 6 EXPANDING THE HORIZON STAKEHOLDERS, COLLABORATION & PARTNERSHIP

The expanding mobile space in India requires identifying areas of synergy and convergence among stakeholders. While the users constitute the largest stakeholder, the role of other stakeholders including the government and the industry are more critical to find synergies and joint efforts in order to maximize coordinated action, coherence and effectiveness towards implementing successful mobile based projects. There is need to discuss and debate, collaborate and arrive at points and areas of convergence and collaborate in specific areas of relevance and importance.

## 1. REGULATORY FRAMEWORK

The government through its designated agencies like Telecom Regulatory Authority of India (TRAI) constitutes the most potent role player in determining the mobile landscape. The government constitutes the force behind the mobile infrastructure backbone. Policy consolidation is called for. Spectrum allocation (2 G and 3 G allocation already executed) is linked to number of operators (more than 10 by now) in 22 geographical license areas. The high cost of acquiring spectrum is feared to slow down competition and hit prices with increasing cost of capital for operators. Increased competition has led to price war hit margins and benefitted the citizen users. In a situation where telecom operators are uncomfortably indebted it is to hurt competition due to withdrawal and consumers shall suffer.

The spectrum regime requires much expected dynamism and efficiency on vital issues: rationalisation in fees on existing spectrum, the terms on which old licenses are renewed

and corruptly awarded ones relinquished (if at all), new spectrum grants and the rules on mergers and acquisitions<sup>12</sup>. The spectrum policies require boosting investment and not divesting investors. Regulatory mechanism requires more teeth and specification. Absence of a policy framework in dispute resolution authority has been jeopardising the contractual arrangement between the operator and the Mobile Value Added Services (MVAS) content owner/aggregator. Policy consolidation is called for. By allowing unviable firms and their spectrum to be acquired, a scarce resource could be allocated more efficiently and customers could be saved the annoyance of having their carrier go bust<sup>13</sup>. The industry cannot rationalise by itself. The state controls the supply of licenses and spectrum and must therefore enact sensible changes.

## 2. NETWORK & SERVICE PROVISION

Mobile operators rolling out network services in remote and underserved regions are called for. Cost effective and reliable network

<sup>12</sup> Happy customers, no profits, <http://www.economist.com/node/18836120>

<sup>13</sup> 3G fails to gather speed in India , [http://www.zenunwired.com/2011\\_09\\_01\\_archive.html](http://www.zenunwired.com/2011_09_01_archive.html)

services will determine the actual utility of owning mobile phones and exploit its advantages in development. There is still short of "anytime, anywhere" service. All these will determine users to explore new frontiers of services and push other mobile players like MVAS providers in bringing services to the masses, from mobile banking to accurate crop prices. Hyper-competition is good for subscribers and users and help in achieving development and service delivery efforts of the government. Method innovations like sharing radio towers and compress traffic will enable optimum utilization of infrastructure and bring down unsolicited cost of delivery and deliver benefits to users.

### **3. MOBILE VALUE ADDED SERVICE (MVAS) & CONTENT**

The effective role of mobile value-added services (MVAS) will determine the trend in mobile usage and penetration in coming days. The growth drives in key m-services such as m-banking, m-education, m-governance, m-health and m-agriculture, needs innovation and promotion. Data services are expected to be the key growth driver for mobile service demand pushed by introduction of 3G and 4G services. The MVAS providers are expected to work towards meeting the growing uptake for high-end entertainment and communication services in urban areas and utility-driven data services and applications in rural areas.

A different type of VAS, mobile internet (both through handsets as well as dongles), will rapidly gain utility, driven by more affordable access to faster networks<sup>14</sup>. These services are expected to change the dynamics of the Indian telecom sector by empowering users and providing major commercial opportunities for all service providers. Growth drivers for MVAS are increasing penetration and spending

power; advancement in handset/devices; innovative data offerings; introduction of 3G. For the MVAS providers there is need to address lack of compelling applications and localised content. They need to go beyond the urban areas and cover semi-urban and rural areas as well. At present, the number of utility-based applications is limited.

A related constraint is the lack of need based and localised content in vernacular languages. The MVAS providers are required to work closely with stakeholders in the MVAS ecosystem including content providers (content owners and aggregators), technology enablers (platform providers and application service providers), content delivery companies (carriers and handset vendors), to innovate continuously to serve the content consumers (subscribers of such services).

### **4. PHONE DEVICE: MANUFACTURERS/APP DEVELOPERS**

There exists design challenge to make it easier for women and rural users to use smartphones. Manufacturers and developers role seeks to simplify smartphone user screens and help overcome technical and literacy barriers that 'illiterate' users face. Manufacturers require providing users with more airtime, battery management widgets, and inexpensive phone-sharing and emergency SMS features. There exist limitation for users in terms of possessing a darker screen to prolong battery life and an easy-to-use interface. Rural India requires designers to develop simplified grayscale power efficient interface in mobiles that employs visual icons for users with low literacy. For the rural users, handset manufacturers need to scale up in designing phones that not only offer all basic functionalities, but also have certain additional and customised features.

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<sup>14</sup> MVAS Future: Role of value-added services in sector growth, <http://www.tele.net.in/trends-a-developments/item/9104-mvas-future-role-of-value-added-services-in-sector-growth>





## **COLLABORATIONS NECESSARY**

The role of different parties seeks collaboration in diverse ways.

### **1. Improving the policy environment:**

It is strongly felt that stakeholders continue to engage collectively to improve the policy environment to facilitate affordable and convenient mobile networks, devices, services and innovations. Timely engagement amongst stakeholders involving the government, industry, research, bilateral and civil society agencies on policy issues related to spectrum, regulation (including monitoring of content and services trends), arbitration, policy support for mobile industry and community advocacy is going to build a larger unanimity on policy matters and improve the policy and programme focus.

### **2. Increasing Access:**

Relevant parties must continuously engage each other to increase the reach and access of mobile network and connectivity with focus on rural and remote locations. More than 60% of rural India is still not mobile. For network government agencies like USOF and network operators must continue to engage each other. For affordable devices manufacturers must find support in government subsidy or tax benefits.

### **3. Enhancing usage of mobiles in identified areas:**

The role of content and service providers including MVAS operators is critical in creating an environment of demand for content and services on mobiles as relevant to users. The support of bilateral and civil society agencies is very relevant here. Timely and relevant support from government on fiscal and financial front will augment this process. Promoting research for innovations is a necessity here.

# 7 WAY FORWARD

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The horizontal expansion of the mobile space provides a wide opportunity to utilize it for advancing the social, behavioural and development objectives. Currently, the mobile space is restricted in its use, exploration and utilisation in pursuance of serving content, information and services need cutting across social, geographical, economic and cultural barriers. There is a macro consensus on why the mobile phones can complement existing efforts in scaling up social and economic indicators. The challenge is how to expand its reach and usage in terms of meeting substantive society goals. The various experimented programmes in the form of pilot projects do provide a new perspective and orientation in this direction.

In continuity to efforts to explore the mobile space, there are value added inputs as shared by policy planners, service providers, implementers, funders and others that are worth highlighting:

## TECHNICAL

1. The purpose of expanding the social and development objectives can be escalated provided there is move to develop mobiles with essential features at a low rate. Low cost device with user friendly and need based features with navigation friendliness is a necessity.
2. The idea of considering mobile tool as an essential utility device for its empowering capacity seeks worth consideration. This will naturally drive the push to manufacture and make available this basic m-infrastructure platform in the hands of the poorest of the poor as an essential commodity. The role of manufacturers is critical in this respect.

3. Low cost innovations in mobiles in terms of device, software, apps will serve the social purpose of mobiles in the mid and long term. This will also further strengthen the social market reach and sustainability of such innovations and innovators.

## POLICY

4. The Universal Service obligation fund (USOF) under the Department of Telecom (DoT) provides for obligatory connectivity and access provisions through service providers in rural and remote areas. Apart from public landline telephone facilities in rural areas, the USOF provides for creation of infrastructure for provision of mobile services in rural and remote areas under Stream III provision. Stream IV and V provides for broadband connectivity and development of telecom facilities and services. Stream VI talks about pilot projects to use and deploy new technology tools and platforms to augment the above.



Thus there is need for mobile stakeholders in NGOs and industry partners to come on the same platform wherein the USOF can be a viable collative partner.

5. The suggestion to have a centralized corpus fund to roll out mobile based social and development practices by the NGOs/ CSOs is contemporary given the wide reach and permeability of the third sector partners at the grassroots. These agencies can well serve the functions of front-end social service delivery agencies in rural and remote areas on mobile-based platform. In other words, the extensive network of CSOs/NGOs in India can provide a wholesome opportunity to tap this strength to serve citizen needs far and wide riding on mobile networks.
6. The Government has launched the ambitious National Optical Fiber Network (NOFN) project in 2012 with the aim of connecting all the 250,000 Gram Panchayats (GPs) in the country through Optical Fiber Cable (OFC). Already 16 States and Union Territories have signed MoUs to roll out NoFN. With NoFN services and content would be riding on virtual highway to serve common man better in terms of accessibility and affordability. As access service providers like mobile operators, and content providers the scope to reach out to citizens is widened up further to launch their access network and services using NOFN. The mobile stakeholders (Govt, NGOs and private sector) have a substantive role to play in individual and collective capacity to use this space through NOFN to serve the social and community constituents.
7. The inter-ministerial or departmental coordination and collaboration is suggested to realize optimum gains from the mobile outreach and penetration. The role of the Department of Telecom and the Department of Electronics & IT (Govt. of India) as lead agencies to drive this process will go a long way to serve social and

economic needs of millions in India with the aid of mobile networks. The proposition in the Mobile Governance Framework (MGF) to augment this coordination process must be pushed through.

## PROGRAMMATIC

8. The thrust in mobile based practices and projects in social programmes seeks that mobile literacy is promoted. The incapacity to use the simple handset and explore its features restricts the lay user from using the mobile to the fullest. Stakeholders can ensure that mobile literacy precedes the deployment of projects so that maximum advantage is gained from the outcomes. Specifically, if a particular project seeks that focused group are to use smart phone or android-based apps it is more the necessity to train focused users on the usability of the same.
9. Behavioural and social change is not an exclusivist approach. In other words, it cannot have compartmentalised approach focused only on focused groups without providing much space for supporting agencies to contribute and participate. For instance, much can be gained in such change processes if effective and working collaboration can take place with schools, police stations, hospitals etc. for an inclusive approach to change behavior.
10. Mobile based micro initiatives call for demonstration in pilot areas with testing of all vital parameters pertaining to project, variables, and output and outcome vis-à-vis end beneficiaries. It is called for pretesting of the pilots in more than one instance to cross verify and check capacity of project processes to produce desired results under given conditions and factors. This strengthens the viability and durability of ideas and pilots.
11. In the ICT domain there has been number of open forums and communities set up

such as the UN Solution Exchange and the newly proposed Open Knowledge Community. These forums are constituted to democratise sharing and exchange of information and experiences in the form of knowledge resources pertaining to key development objectives including MDGs. The mobile space must be integrated with such forums to enhance its optimum presence and relevance. One major challenge is localisation of content including local language content with local context relevance.

12. The trend observed is isolated practice of mobile projects as is the case with major ICT interventions. On practical ground it is cited reasons in technical and operational matters including complexity in sharing of roles and responsibilities that hinders any collaborative effort among independent project partners and owners. On feeble ground there is a cited reason in professional doubts and mistrust and fear of overpowering by rivals that prevents meaningful collaboration. Beyond such trends and tendencies, what is agreeable to many is collaborative work can bring in critical resources and pulling in of strength areas for successful ventures.
13. The pilot projects pose the challenges in improvisation and scaling up. Issues in improvisation included – technology and platform feasibility, real time data collection, database management and data usage for course correction, local language support, two way communications and response system, community ownership and engagement, IVRS integration, project customisation, and others. Issues in scalability included collaborating with diverse set of agencies, business model with low investment, collaboration with government nodal agencies, source of funding, wider advocacy and education programmes, effective sales

and marketing, project cost design and management, optimum project design and implementation with judicious resource allocation.

14. The project sustainability is the overall concern in medium and long term which requires policy support like priority grants and subsidies, and investment in priority areas like rural based projects. Support from corporate agencies is sought in provision low cost devices and content. Collaboration with research agencies helps to analyse outcome and create provisions for replication and scalability.
15. In such a situation, all the 12 cases highlighted above is suggested to develop a matrix of collaboration in areas where feasible in terms of technology, processes, operational model, business model and management features. This can pave way for sustainable partnership and sustainable social businesses.



# 8 NEXT STEPS FOR “MOBILE AS A TOOL FOR SOCIAL & BEHAVIOUR CHANGE” ROLE OF UNICEF

It is strongly perceived that the subject of mobile as a tool for social and behavioural change is an emerging area of importance among stakeholders in communication for development space. The development challenge is how to place the mobile tool at the heart of solving key communication related hurdles in areas of education, health, livelihood and environmental disasters. There are ground level limitations to the above. One, the understanding of “social and behavioural change” is limited among the stakeholders of development and largely missing across the board. Secondly, the mobile innovation is a recent development and thus there are limited understanding and experiments to sustain the positive arguments for SBC through the mobile tool.

Despite the limited social and behavioural application of mobiles through development initiatives, the encouraging note is the space for mobiles has been overwhelming in the overall communication landscape. The mobile has emerged as the most potent ‘m-powering’ device with enormous information and communication transformation across communities, especially in rural areas. It is this positivity of mobile that is being looked at with great enthusiasm and optimism. The role of mobiles in SBC led by the government, bilateral agencies and others assumes tremendous significance here.

The two days Mobiles for SBC has led to two key outcomes. One, it has highlighted the quantitative space and strength of mobiles in terms of access, usage, and digital equity impact. Two, it has highlighted that mobiles can facilitate to address development challenges as demonstrated by presentation of 12 case studies with MSBC focus.

One of the key considerations from above is since communication for development is a priority area, therefore, a concentrated approach and framework can be evolved at UNICEF to intervene in key aspects of MSBC. With global mandate and specific thrust in various situation contexts, UNICEF’s frontal role and interventions will make significant difference. This role in a collaborative mode with stakeholders will help demonstrate firmly by examples, as to how mobiles can address policy and programme priorities to serve underserved communities by bringing undesirable social and behavior changes in them.

As a way forward, the majority of the stakeholders during the consultation broadly suggested that:

- UNICEF would intensify efforts on MSBC to take it forward across states Mobile Phones: A Tool for Social & Behavioural Change Page 24 and even nationally with higher degrees of involvement;
- MSBC is a new potential area, it requires in-depth insights and focus;
- UNICEF could sign up partnership with stakeholders for mid and long term programmes;
- There is a serious need for data mining and research to find a pool of MSBC practitioners and work towards policy and programme implementation for scaling up and replication of pilots in India; UNICEF has a significant role and stake here;
- MSBC 2-days consultation is just a beginning, it needs to spread horizontally and vertically with the lead role of UNICEF;
- MSBC requires building multi stakeholder partnership; MSBC needs to work very closely with various government ministries and departments with UNICEF as active lead.

**The two-day consultation evolved with a broad understanding as to how UNICEF can play a pro-active role to accomplish the following:**

**1. Mobiles as a tool for Social & Behaviour Change: Data, Numbers, Players, Impact & Future of Connected Development:**

Doing a comprehensive empirical and secondary research on use of mobile for social and behavioural change, considering there is nothing exist worth reference as of now; The research should go deeper into the available numbers coming from Telcos and TRAI, but they should be derived to find meaning for MSBC. In order to make the research authentic and bottom up in terms of sourcing hard data from the ground, it can be suggested to identify at least 50 MSBC best practitioners and work with them to source real-time data and survey to analyse real life analysis and impact of MSBC deployments. This could culminate into a directory of innovations as an output.

**2. MSBC Consultations:**

Finding Mobiles' Roles in select States of India – Sharing Stories from the Ground: UNICEF with relevant partners would organise at least few more consultative workshop on MSBC in as many states or with a combination of two-3 states with close involvement of state governments and other stakeholders including network operators, manufacturers, MVAS operators, developers, content providers and others. The workshops will focus on implementable ideas and explore working partners to ensure ideas work locally on scaled manner or even better;

Objectives of state consultation workshops can be:

- Understand the existing initiatives in SBC/ MSBC in the state;
- Explore opportunities and new possibilities in the state based on the requirements as articulated by different government counterparts;
- Understand capacity building needs;

- Road map on way forward to support the state initiatives that includes tentative cost (human, financial and technical resources).

**3. MSBC Advocacy – Role of Government, Policy Makers and How to empower Bottom 500 million of India:**

UNICEF can work on advocacy level to align with various ministries, departments, planners, and even building partnership with various stakeholders. One methodology is, developing various research and advocacy ideas through research and other methods and share/ submit papers to relevant bodies, engage in meetings, and develop strategies and make things happen.

**4. MSBC Innovation, Incubation & Mentoring for Strengthening Communication for Development through Mobile and Telecom:**

To set up a platform to nurture and encourage young mobile entrepreneurs with funding and mentoring support to scale up ideas and innovations, towards development of value added product and service having higher economic return; Form a process oriented selection body like “Mobile for Good” and make it fully focused on MSBC and invite application from across India in the subjects that could cover MSBC's all areas of practices. This annual event could attract a lot of best practices and thus would create pool and innovations to be taken further.



# ANNEXURE 1

## PROGRAMME AGENDA OF CONSULTATION ON 'USE OF MOBILE PHONES FOR SOCIAL & BEHAVIOURAL CHANGE', MAY 9 – 10, 2013, NEW DELHI (ORGANISED BY UNICEF & DEF)

### Consultation Objectives:

- Reflect on the reach, access, use and potential of mobile phones amongst women, adolescent girls, boys and other stakeholders;
- Understand the existing initiatives in SBC/MSBC in the state;
- Understand some of the models being implemented using mobile phones for social and behaviour change – information/knowledge dissemination, monitoring, support to front line workers, and inter personal communication;
- Assess the potential of the different interventions to be up-scaled;
- Explore the scope of partnership building and collaborative work among government, private, bilateral agencies, CSOs and others in mobiles for SBC;
- Finalize the white paper on 'Mobiles for Social & Behaviour Change' with consultation recommendations

### Day 1: May 9, 2013

9:00 AM – 9:30 AM	Registration of delegates & participants
9:30 AM – 11:00 AM	<i>Welcome &amp; Introduction</i> <i>This session gives an overview of the objectives of Consultation and the expectations from the deliberations. It sets the context and background to the Consultation.</i>
9:30 AM – 9:35AM	Welcome & Introduction by Digital Empowerment Foundation
9:35 AM – 9:40 AM	Consultation overview Paolo Mefalopulos, Chief Communication for Development (C4D), UNICEF
9:40AM – 10:00 AM	Use of Mobiles phones for Women and Children's Programmes Dr Vivek Joshi, Joint Secretary, Ministry for Women & Child Development (MWCD)
10:00 AM – 10:15 AM	Use of mobile phones for Governance Dr. Rajendra Kumar, Joint Secretary (mGov), Dept. of Electronics and IT, Govt. of India
10:15 AM – 10:30 AM	Scope & Opportunity of the Use of Mobile Phones Arun Maira, Member, Planning Commission*
10:30 AM – 11:00 AM	Introduction of invitees, practitioners & participants

- 11:00 AM – 11:30 AM      Tea Break
- 11.30 AM – 1.15 PM      *Working Session I*  
*Status Overview: Mobile Reachability, Accessibility, Usability & Potential*
- This session shall deliberate on mobile phone penetration, reach, accessibility and usage in India. The focus will be on trends in penetration of mobile phones – urban and rural regions; the accessibility of mobile phone among women and young people; the usability of mobile phone especially in areas of health, education, disaster management & environmental sustainability.
  - The focus will also be on scope and potential of mobile phones for information dissemination, training of front line workers, monitoring of programmes, and inter personal communication.
  - The session shall focus on data in terms of reach, access and usage. Each invited presenter will have maximum 15 minutes of presentation.
  - The session will be followed by Q&A with representatives of
- Session Chair: Dr. Rajendra Kumar, Joint Secretary (mGov), Dept. of Electronics and IT, Govt. of India***  
***Rapporteurs & Moderation: UNICEF India & DEF***
- 11:30 AM – 11:45 PM      Reach and Access of Mobiles  
Presentation by: Mr. Subho Ray, President, Internet & Mobile Association of India (IAMAI)  
The presentation will focus on reach/penetration of mobile phones among various strata of Indian society. It will set the context through statistics and trends. Mobile phone penetration trends will be highlighted among states, specifically in urban and rural regions, and among male, female, youth, and adolescents.
- 11:45 AM – 12:00 PM      Mobile Usage & Potential [Content + Context]  
Presentation by: Milind Pathak, Global Head of New Business, One97  
The presentation will focus on the usability of mobile phone especially in areas of health, education, disaster management and environment sustainability. The focus will be on scope and potential of mobile phones for information dissemination, training of front line workers, monitoring of programmes, and inter personal communication. The presentation will also highlight current trends on content and services imparted through mobile phones and the use of 'value added services' (VAS).
- 12:00 PM – 12:15 PM      Topline Findings from a study of 65 Tech4Dev Mobile Innovations  
Presentation by: Chirag Arora, IIT Delhi  
The presentation will focus on sharing the outcome of the research where 65 initiatives have been covered to find various trends and innovations as how mobiles are being used in an innovative manner to find diverse needs of the multi-pronged society.





12:15 PM – 1:00 PM Discussion: Access, Reach & Usage of Mobile Phones  
Given the context of the earlier presentations, this moderated discussion with multiple stakeholders will bring out 10-15 recommendations/action points from stakeholders in the mobile services arena on the reach, access, usability and potential of mobile phones. The discussants are representatives from: DietY, Ministry of C&IT, Gol/Ministry of HFW, Gol, COAI, BSNL, Airtel, Nokia, Mobile VAS, Bilateral Agency, and CSOs.

1:00 PM – 1:15 PM Conclusion & Recommendations by the Chair  
The session Chair will finally sum up the session with a set of Recommendations.

1:15 PM – 2:00 PM Lunch Break

2:00 PM – 5:30 PM *Working Session II*  
*Learning from experiences: Use of Mobile Phones for*  
*1. Information Dissemination*  
*2. Monitoring/Tracking*

- This session will focus on sharing case studies on use of mobile phones for information dissemination and monitoring/tracking of interventions in - education, health and environmental sustainability.
- Invited case study presenters will be allotted 10 minutes to present their case studies followed by Q&A for the audience. Brief clarifications can be sought from the presenters.
- Thereafter, participants will be divided into two sub groups. Each sub group will discuss and make recommendations regarding specific aspects: (1) scope for scalability of the case studies; (2) Improvisations needed and ways to scale up specific case studies.
- Each subgroup will present the highlights of their discussions.
- The session Chair will sum up a set of recommendations pertaining to the session/presentations

***Session Chair: Paolo Mefalopulos, Chief Communication for Development (C4D), UNICEF***  
***Rapporteurs & Moderation: DEF and UNICEF***

2:00 PM – 2:30 PM Case Study presentations: Use of mobile phones for Information Dissemination  
Case presenters

- Mobiles for Education: N. A Shah Ansari, Project Name: Let us go to school; By: Radio Namaskar; Location: Konark, Odisha  
The practice: bring back dropout students to their respective schools and motivate the parents to send their children to school.
- Mobiles for Health: Chetan Sharma, Project Name: MHSM SMS Toolkit; By: Datamation Foundation; Location: Kanpur, UP  
The practice: circulate vital information regarding Reproductive and Child Health related information services directly to the pregnant

and lactating women through mobile phones, using localized SmS in Hindi.

- Mobiles for Environmental Sustainability: Kamaljeet & Surabhi Mittal  
Project Name: Kisan Sanchar; By: Kisan Sanchar;  
Location: Rohtak, Haryana  
The practice: bring agri-extension information services for better agriculture practices and also environment friendly impact through organic practices.

2:30 PM – 3:00 PM

Sub-group Discussion

The participants will be divided into three sub-groups focusing on three major parameters. Each sub-group will have 30 minutes discussion time and will identify minimum 5 recommendation points based on the following three parameters for each practice;

- What is the potential of scalability of the case studies? Which aspect is scalable?
- What needs to be done for scalability? Any improvisations needed?
- What are the ways/means to scale-up practice beyond the meso/ pilot programme?

3:00 PM – 3:15 PM

Sub-group presentations

Each sub-group will 5 minutes to present their presentation/ recommendation points

3:15 PM – 3:30 PM

Q&A & Summary

- Q&A session have to be relevant and focused on the case presentations
- A maximum of 5 questions shall be allowed by the Chair/Moderator  
Chair will sum up with action points/recommendations on Use of Mobiles for Information Dissemination

3:30 PM – 3:45 PM

Tea Break

3:45 PM – 4:15 PM

Case study presentation: Use of Mobile phones for Monitoring/Tracking  
Case presenters

- Mobiles for Education: Sudhanshu Tripathi, Project Name: The IVRS based Daily Monitoring System (DMS); By: Mid-Day Meal Authority; Location: Uttar Pradesh  
The practice: an automated mobile-based MIS where data of children availing mid-day meal is made available on daily basis.
- Mobiles for Health: Anju Sharma & Nishith Dholakia; Project Name: E-Mamta– Mother & Child Tracking System; By: State Rural Health Mission (SRHM), Department of Health & Family Welfare; Location: Gujarat  
The practice: sends maternal and child health information services programmes.
- Mobiles for Environmental Sustainability: Santosh Ostwal, Project Name: Nano Ganesh; By: Ossian Agro Automation Pvt. Ltd. Location: Pune, Maharashtra



The practice: monitoring irrigation systems remotely using mobile phones in hazardous and remote areas.

4:15 PM – 4:45 PM

Sub-group Discussion

The participants will be divided into three sub-groups focusing on three major parameters. Each sub-group will have 30 minutes discussion time and will identify minimum 5 recommendation points based on the following three parameters for each practice;

- What is the potential of scalability of the case studies? Which aspect is scalable?
- What needs to be done for scalability? Any improvisations needed? What are the ways/means to scale-up practice beyond the meso/ pilot programme?

4:45 PM – 5:00 PM

Sub-group presentations

Each sub-group will 5 minutes to present their recommendation points

5:00 PM – 5:30 PM

Q&A & Summary

- Q&A session have to be relevant and focused on the case presentations
- A maximum of 5 questions shall be allowed by the Chair/Moderator

Chair will sum up with action points/recommendations on Use of Mobiles for Monitoring/Tracking

5:30 PM – 6:30 PM

Open House Discussion followed by High Tea

## **Day 2: May 10, 2013**

9:30 AM – 1:00 PM

*Working Session III*

*Learning from experiences: Use of Mobile Phones for support to Frontline workers & Interpersonal communication (IPC)*

- This session will focus on case studies on the use of mobile phones for support to frontline workers and in inter personal communication (IPC) for promotion of education, health, disaster management & environmental sustainability
- Invited case study presenters will be allotted 10 minutes to present their case studies followed by Q&A for clarifications.
- Thereafter, participants will be divided into two sub groups. Each sub group will discuss and make recommendations regarding specific aspects - (1) scope for scalability of the case studies; (2) Improvisations needed and ways to scale up specific case studies.
- Each subgroup will present the highlights of their discussions.
- The session Chair will sum up a set of recommendations pertaining to the session/presentations

9:30 AM – 10:00 AM

Case study presentation: Use of Mobile Phones for Training of frontline workers

Case presenters

- Mobiles for Education: Zubeeda B. Quraishy; Project Name: Bridgelt

India, By: EZ Vidya Pvt Ltd.; Location: Chennai, Tamil Nadu

The practice: mobile-based education programme using videos and audios to enhance teaching practices.

- Mobiles for Health: Priyanka Dutt; Project Name: Mobile Kunji By: BBC Media Action; Location: Bihar  
The practice: enhance the efficiency of inter-personal communication system of community health workers (CHWs) through an audio based training course delivered via mobile phones.
- Mobiles for Health: Murari M. Choudhury; Project Name: CommCare; By: Dimagi Health Solutions, NEEDS; Location: Jharkhand  
The practice: deliver educational and health care information services and allows data to be shared between Community Health Workers (CHWs)

10:00 AM – 10:30 AM	<p>Sub-group Discussion</p> <p>The participants will be divided into three sub-groups focusing on three major parameters. Each sub-group will have 30 minutes discussion time and will identify minimum 5 recommendation points based on the following three parameters for each practice;</p> <ul style="list-style-type: none"><li>• What is the potential of scalability of the case studies? Which aspect is scalable?</li><li>• What needs to be done for scalability? Any improvisations needed?</li><li>• What are the ways/means to scale-up practice beyond the meso/ pilot programme</li></ul>
10:30 AM – 10:45 AM	<p>Sub-group presentations</p> <p>Each sub-group will 5 minutes to present their presentation/ recommendation points</p>
10:45 AM – 11:15AM	<p>Q&amp;As &amp; Summary</p> <ul style="list-style-type: none"><li>• Q&amp;A session have to be relevant and focused on the case presentations</li><li>• A maximum of 5 questions shall be allowed by the Chair/Moderator</li></ul> <p>Chair will sum up the recommendations on the Use of Mobiles for Training of Frontline Workers</p>
11:15 AM – 11:30 AM	<p>Tea Break</p>
11:30 AM – 12:00 PM	<p>Case study presentation: Mobiles for Inter Personal Communication</p> <p>Case presenters</p> <ul style="list-style-type: none"><li>• Mobiles for Education: Nand Wadhvani Project Name: HealthPhone; By: The Mother and Child Health and Education Trust; Location: Mumbai, Maharashtra The practice: provide basic health and nutrition information services related to maternal and child mortality using a feature mobile handset. How-to videos on 15 health topics with key messages on prevention, treatment and management in 18 Indian and a total of 50 languages.</li><li>• Mobiles for Health: Dr. Sandhya Ramalingam; Project Name: Nokia-Arogyam Diabetes; By: Arogya World; The Practice: prevent diabetic disease by influencing behaviour change</li></ul>



	<ul style="list-style-type: none"> <li>• <b>Mobiles for Environmental Sustainability:</b> PreetiSoni; Project Name: Hello Sakhi; By: Kutch Mahila Vikas Sangathan; Location: Gujarat The practice: provide immediate support to women through counseling, guiding, mobilizing to shelter homes and filing complaints to police.</li> </ul>
12:00PM – 12:30 PM	<p>Sub-group Discussion</p> <p>The participants will be divided into three sub-groups focusing on three major parameters. Each sub-group will have 30 minutes discussion time and will identify minimum 5 recommendation points based on the following three parameters for each practice;</p> <ul style="list-style-type: none"> <li>• What is the potential of scalability of the case studies? Which aspect is scalable?</li> <li>• What needs to be done for scalability? Any improvisations needed?</li> <li>• What are the ways/means to scale-up practice beyond the meso/ pilot programme</li> </ul>
12:30 PM – 12:45 PM	<p>Sub Group Presentations</p> <p>Each sub-group will 5 minutes to present their presentation/ recommendation points</p>
12:45 PM – 1:15PM	<p>Q&amp;As &amp; Summary</p> <ul style="list-style-type: none"> <li>• Q&amp;A session have to be relevant and focused on the case presentations</li> <li>• A maximum of 5 questions shall be allowed by the Chair/Moderator</li> </ul> <p>Chair will sum up the recommendations on the Use of Mobiles for Inter-Personal Communication</p>
1:15 PM – 2:00 PM	Lunch Break
2:00 PM – 5:00 PM	<p><i>Working Session IV</i></p> <p><i>Expanding the use of mobile phones: Partnerships and way forward</i></p> <ul style="list-style-type: none"> <li>• The focus of the session is to explore partnerships to expand the use of mobile phones for social and behavioral change. The outcome of collective effort is always better than working in isolation. Partnerships help pull resources, experience, and expertise of stakeholders to work in unison towards common collective goals. This is all the more relevant with use of mobile phones for social and behavior change.</li> <li>• This concluding session comprises presentations from invited government, corporate, civil society and multilateral agencies on their views and suggestions for a multi-stakeholder partnership to expand the use of mobile phones for social and behaviour change.</li> </ul> <p><b>Session Chair: Ms. Sudha P. Rao, Adviser (WCD), Planning Commission, GoI</b></p> <p><b>Session Moderator: UNICEF India and DEF</b></p> <p><b>Rapporteur: DEF</b></p>
2:00 PM – 2:15 PM	Recap of Day 1 & Day 2 (pre-lunch) Deliberations: DEF

2:15 PM – 4:00 PM

This session is expected to be highly moderated, extensively inclusive and will be based on 2 minutes of contribution from each lead discussant. There will be at least 3-5 rounds of discussion based on themes and each lead discussant would share his/her point of view based on her/his stakeholder ship

Government Stakeholders: Areas of Interest and Scope for collaboration  
Lead for Discussion:

- Department of Electronics & IT (DeiY), Govt. of India: Dr. Rajendra Kumar, Joint Secretary (mGov)
- Representative from office of Adviser to Prime Minister on Public Information Infrastructure & Innovations: Rahul Nayar&Vikas Bagri

Mobile Industry: Scope for Contribution & Collaboration

Lead for Discussion:

- Nokia India: Natesh B V, Director – Emerging Markets
- Facebook: Ankhi Das, Head of Public Policy for India
- Qualcomm: AnirbanMukerji, Senior Manager - Wireless Reach

NGOs & Civil Society Organizations: Strength, Areas of Interest and Scope for Collaboration

Lead for Discussion:

- Population Council: M.E. Khan, Senior Program Associate
- Indian Council for Research on International Economic Relations (ICRIER):RajatKathuria, Director and Chief Executive
- Nasscom Foundation: Rita Soni, CEO
- Telecom Expert: Amitabh Singhal, Former CEO, NIXI, Board Member at Public Interest Registry
- Swara Platform and Network (CGNetSwara): ArjunVenkatraman

International & Bilateral Agencies: Scope for Contribution & Collaboration

Lead for Discussion:

- Bill & Melinda Gates Foundation: Peter Small
- UNESCO: Alisher Umarov, Programme Specialist in Education
- Open Knowledge Community (OKC), C/O UNESCO: Rajen Varada

2:15 PM – 4:00 PM

This session is expected to be highly moderated, extensively inclusive and will be based on 2 minutes of contribution from each lead discussant.

4:00 PM – 4:45 PM

Discussions, Questions & Views from the Other Participants

4:45 PM – 5:00 PM

Session IV Summary by the Chair

The session chair and moderator will finally sum up the session with a set of recommendations pertaining to the session. Presentation by the Chair to sum up the session by sharing their experiences and recommendation points pertaining to the session.

5:00 PM – 5:15PM

Consultation Concluding Remarks: UNICEF



# ANNEXURE 2

## LIST OF PARTICIPANTS DURING CONSULTATION ON 'USE OF MOBILE PHONES FOR SOCIAL & BEHAVIOURAL CHANGE', MAY 9 – 10, 2013, NEW DELHI (ORGANISED BY UNICEF & DEF)

S. N.	Speaker Name	Designation & Organization Name	Contact Details	email ID
1	Arun Maira	Member, Planning Commission		arun.maira@nic.in
2	Mr. Subho Ray	President, Internet & Mobile Association of India (IAMAI)	9892706019	subho@iamai.in
3	Milind Pathak,	Global Head of New Business, One97		milind.pathak@one97.net
4	Chirag Arora	IIT Delhi	8375070749	arorachirag90@gmail.com
5	N. A. Shah Ansari	Director, Radio Namaskar	9437036471	ansari.youngindia@gmail.com
6	Chetan Sharma	CEO , Datamation Foundation		
7	Kamal Jeet	Kisan Sanchar	9215514437	
8	Surabhi Mittal	Senior Scientist, Agricultural Economist, International Maiza & Wheat Improvement Centre	9711154443	s.mittal@cgiar.org
9	Sudhanshu Tripathi	IVRS MDMS		
10	Nishith Dholakia	e-Mamta	9099075152	nbdholakia@rediffmail.com
11	Santosh Ostwal	CEO & Founder Director, Ossian Agro Automation Pvt. Ltd.	9822632277	shostwal@yahoo.co.in
12	Madan Mohan Rao	Research Director, Mobil Monday		madan@techsparks.com
13	Zubeeda B. Quraishy		9840020114	zubeedaq@ezvidya.com
14	Ms Priyanka Dutt	Project Director, BBC Media Action,	9899883836	priyanka.dutt@bbcwst.org
15	Murari Mohan Choudhury	Executive Director, NEEDS, Jharkhand		choudhury2c@gmail.com
16	Nand Wadhvani	Founding Trustee, The Mother and Child Health and Education Trust		nand@motherchildtrust.org
17	Sandhya Ramalingam	Head, Program Evaluation, Arogya World	9886061600	sandhya@arogyaworld.org
18	Ms. Preeti Soni	KMVS		kmvskutch@gmail.com
19	Ms. Sudha P. Rao	Adviser (WCD), Planning Commission, Gol		sudhap.rao@nic.in
20	Rahul Nayar	Associate, Planning Commission	8826008823	nayar.rahul@gmail.com

21	Natesh B V	Director, Emerging Markets	9741497973	natesh.b-v@nokia.com
22	Anirban Mukerji	Senior Manager, Wireless Reach, Qualcomm		amukerji@qti.qualcomm.com
23	Ankhi Das	Head of Public Policy for India, Facebook	9899000135	ankhi@fb.com
24	M.E. Khan	Population Council		
25	Amitabh Singhal	Former CEO, NIXI, Board Member at Public Interest Registry & Telecom Expert	9810081774	amitabh@amitabhsinghal.in
26	Arjun Venkatraman	Swara Platform and Network	8989161881	
27	Peter Small	Bill & Melinda Gates Foundation	9711982801	peter.small@gatesfoundation.org
28	Rajat Kathuria,	Director and Chief Executive, Indian Council for Research on International Economic Relations (ICRIER)	9811297227	rkathuria@icrier.res.in
29	Alisher Umarov,	Programme Specialist in Education, UNESCO	9871713216	a.umarov@unesco.org
30	Rajen Varada	Open Knowledge Community (OKC), C/O UNESCO		rajen.varada@gmail.com
31	Shelley Thakral	Senior Communications Officer, Bill & Melinda Gates Foundation	9582211703	shelley.thakral@gatesfoundation.org
32	Seema Kumar	Communication for Development Specialist	8008277991	sekumar@unicef.org
33	Nikhil Narayan	Country Product Lead, Nokia Life	7259025046	nikhil.narayan@nokia.com
34	Mrutyunjay Mishra	Co-founder, Juxt	9717133445	mrutyunjay@juxtconsult.com
35	Prashant Kapur	Deputy General Manager Mobile Commerce, Vodafone	9811918609	prashant.kapur@vodafone.com
36	Rajat Gupta	Senior Consultant (MIS), EdCIL India Limited	9858691366	rajatgupta.mdm@gmail.com
37	Anuragini Nagar	Programme Manager, Sesame Workshop India Trust	8826288778	anuragini.nagar@sesame.org
38	Avishek Hazra	Programme Officer, Population Council	011-24642901	ahazra@popcouncil.org
39	Naveen Sharma	Sr. Programmer, Futures Group	9818461200	nsharma@futuresgroup.com
40	Monisha Borthakur	Principal Consultant	8447740726	Monisha_Borthakur@infosys.com
41	N. Ramakrishnan	Director, Ideosync	9810273883	nram@ideosyncmedia.org
42	Bijoy Singhal	Developer Evangelist	9886396260	Bijoy.Singhal@microsoft.com





43	Gaya Prasad	Director, Ministry of Human Resource Development, Department of School Education & Literacy	9868224318	gaya.prasad@nic.in
44	Rene Singh		9811212374	touchachord@hotmail.com
45	Amol Jawale	Chief Consultant (MIS)	9910660343	amol.mdm@gmail.com
46	Vani Sethi	Nutrition Specialist, UNICEF	011-24690401	vsethi@unicef.org
47	Partha Chakraborty	Senior Consultant, Advisory	9987148863	partha.chakraborty@in.pwc.com
48	Amy Lightfoot	Senior Training Consultant	011-41497364	Amy.Lightfoot@britishcouncil.org
49	Kavita Bhatia	Scientist E, Department of Information Technology	011-24364729	kbhatia@mit.gov.in
50	Sachin Rewaria	Technical Training Focal Person	880797666	rewariasaa@npsuindia.org
51	Ritika Agrawal	Assistant Manager, Vodafone foundation		ritika.agrawal@vodafone.com
52	Nilotpal Chakravarti	Executive Editor, IAMAI	9810672906	nilotpal@iamai.in
53	Deepta		8989161880	deepta@mojolab.org
54	Nirmalaya Mukherjee	Director, Planning & Programming, Mant	8420011313	mukherjee.nirmalaya@mant.org.in
55	KS Raykar	Executive Director	9845655553	kishraykar@gmail.com
56	Ruchi Khemka	Manager CSR	9819818593	ruchi.khemka@vodafone.com
57	Anshul Tiwari	Youth Ki Awaaz		anshultewari@youthkiawaaz.com
58	Rita Soni	CEO, Nasscom Foundation		rita@nasscomfoundation.org
59	Ms Akanksha Chaturvedi	Associate, Planning Commission		chatt2k@gmail.com
60	Deepti	Sr . Manager, NASSCOM Foundation	9971795958	deepti@nasscomfoundation.org

# RESOURCES

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For more copies contact:  
Communication for Development Section  
United Nation Children's Fund  
73, Lodi Estate  
New Delhi - 110003  
India

Tel: +91 99 24690401

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