

MOBILE PHONES

A TOOL FOR SOCIAL AND BEHAVIOURAL CHANGE

A WORKING PAPER



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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 and magnitude and learn from experiences of how mobile phones are emerging as viable tools, devices and platforms to meet vital development and governance objectives including social and behaviour change (SBC).

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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

Today, India has more than 850 million mobile subscriptions which is up from 300 million in 2002. The country is expected to have 1.35 billion mobile subscriber connections in 2016¹. The mobile density stands at 70 per 100 and the penetration rate² 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 privatisation 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 expansion 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. 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.

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 with 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 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.

Mobiles for SBC (MSBC)

There are emerging areas in use of mobiles for Social and Behavioural Change (SBC) that requires consideration from stakeholders. Mobile tools in information and communication are emerging viable medium to effect changes in social, cultural and development space by engaging the 'human factor'. Mobile communication has emerged as a viable inclusive medium to effect changes through information dissemination, training of frontline workers and interpersonal communication, and monitoring and tracking of social and development programmes. The desirable changes are sought to be brought in education, health, environment and livelihood initiatives. While mobile cannot bring change by itself, it is important to devise ways and means to bring the 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 mobile

phones can emerge as tools of change in a context wherein communities have lived by age old cultural practices.

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. Towards this objective, UNICEF in India in association with Digital Empowerment Foundation (DEF) initiated a micro project on mobiles for SBC multi-stakeholder consultation in New Delhi (May 9-10, 2013) to deliberate on MSBC subject, share ideas and experiences from identified 12 pilot projects and bringout a consultation paper for policy and programme reference in due course. The review of 12 mobiles for SBC projects highlighted the scope, opportunity as well as limitations in mobiles for SBC in areas of information dissemination, interpersonal communication, training of frontline workers, and monitoring and tracking. The pilots brought out key aspects of project improvisation and scalability in such socially relevant mobile initiatives.

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 and the limitations as well as scope to expand social space for mobiles. Content 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. The paper will act 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.

¹ India to have 1.35 billion mobile subscriber connections in 2016, <http://www.reuters.com/article/2012/09/11/idUS178164+11-Sep-012+BW20120911>, (July 10, 2013)

² number of active mobile phone numbers within a specific population

2 MOBILE STATUS OVERVIEW REACH & ACCESS

India is an emerging 'mobile' market. The country has the second-largest mobile phone user-base 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 together³. Total mobile subscription stood at 862 million as on 31st January, 2013⁴. 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 2016⁵. 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 services⁶. 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 mobile⁷. The 25-35 years age group is the single largest mobile user group. However, 19-24 years ones show the highest 'penetration' as well 'propensity' to own mobile phones. Only 1 in 5 women in urban cities are mobile. While in rural India, 1 in 3 men are mobile, only 1 in 10 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 non mobile users. 1 in 5 user use 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) Teledensity

The mobile (wireless) teledensity has seen an increasing trend in recent times (see Figure 1). The overall wireless teledensity in India as of January 2013 is 70.58 (TRAI). The total mobile penetration in India stood at 76% with only 26% unique subscriber penetration (GSMA,



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

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

Source: TRAI

2012). Rural teledensity is at 39.26 as of January, 2013 (TRAI) while the urban density stood at 142.10

The Urban – Rural Mobile Base

Over the years in recent times, rural India had many active mobile subscribers. As of January 2013, the rural subscribers' base grew by 6.64 million with monthly growth rate of 1.99%⁹. The total rural subscribers' base stood at 333.74 million. During the same period, the urban subscribers base grew at (- 4.24 million) 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 has noted as 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.

³ Key statistical highlights: ITU data release June 2012, http://www.itu.int/ITU-D/ict/statistics/material/pdf/2011%20Statistical%20highlights_June_2012.pdf

⁴ Highlights on Telecom Subscription Data as on 31st January 2013, <http://www.trai.gov.in/WriteReadData/WhatsNew/Documents/PR-TSD-Jan2013.pdf>

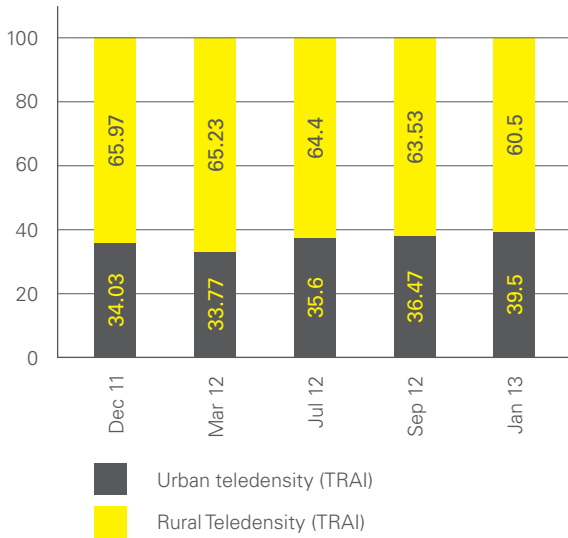
⁵ South Asian countries to witness massive mobile broadband growth, Apr 16, 2013, <http://www.cxotoday.com/story/south-asia-to-witness-massive-mobile-broadband-growth/>

⁶ <http://www.cxotoday.com/story/south-asia-to-witness-massive-mobile-broadband-growth/>

⁷ Mobile Internet in India, 2012, Internet & Mobile Association of India (IAMAI), New Delhi

⁸ TRAI

Figure 1: Wireless telecom teledensity in India (Dec 2011-Jan 2013)

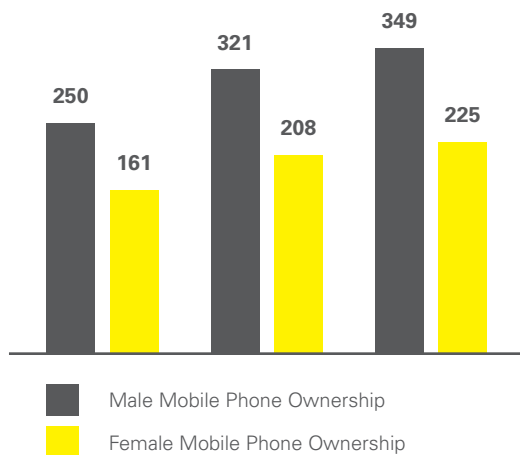


Source: TRAI

**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

Digital, Gender Inclusion and Mobiles

The emergence of mobile phones have tremendous impact in digital inclusion in India. India presently 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 phones¹⁰. Mobile phones 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 mobile phones is expected to boost the government’s ambitious project to give broadband connectivity to 250,000 villages under the National Optical Fiber Network (NOFN) plan¹¹. The gender perspective of mobile outreach is an empowering quotient (Figure 2). As in 2011, there were 225 million women mobile subscribers which is a jump of 40% from 2009.

Mobile Market / Economics

The mobile market has been increasing at a rapid pace reflecting a 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 a 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



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
Total	862623786	861660097	1,210,193,422	71

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

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 a surge in demand for the hand phone and services.

What it indicates

The mobile 'culture' in India is at its peak.

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 and service providers and 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

⁹ Highlights on Telecom Subscription Data as on 31st January 2013, TRAI

¹⁰ http://www.iamai.in/Upload/Research/9320123264601/ICube_2012_Rural_Internet_Final_62.pdf

¹¹ 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

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.



3 MOBILE PHONE AS A TOOL FOR SBC & STAKEHOLDERS ENGAGEMENT

Mobile phones have 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’

Off late 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 phones networks have triggered a new sense of social identity among 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 and mental stress and abusive situations through a helpline ‘Hello Sakhi’ that facilitates 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 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 has 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 grassroots 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 are made mobile compliant. It is proposed to integrate at least 125 Government Departments with Mobile Services Delivery Gateway (MSDG) for deployment and delivery of mobilebased services by end of FY 2012-13. Framework available at <http://www.deity.gov.in/content/frame-work-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 of 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 providers¹².

The role of the mobile software developers in innovations enabling solutions to development objectives has seen expansions in the recent past. 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, 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 mindsets and psychology of mobile users. In a span of 15 months, there have been a download of 10.3 million game sessions.

www.freedomhivaid.com/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 increase in 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

¹² 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)



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 BEHAVIOUR CHANGE

The effective usage of mobile phones 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

In the recent past empowering role of mobiles through critical information dissemination has been realised. Features unique to mobile phones, such as portability, text messaging and data downloading, have allowed common users to participate in the social and economic processes through timely and accurate information and greater flexibility of communication¹³. Mobile based learning has increased access for education content dissemination for those having in difficult context. The portable devise has empowered

Figure 3: Mobile for Social & Behavioural Change



communities to access health resource needs more so in rural India.

b. Monitoring & Tracking

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

c. Training of Frontline Workers & Interpersonal Communication

In recent times, mobile device has been experimented to serve training needs in front end service delivery. This has 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.

¹³ 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

4 MOBILES 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 impact across 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 have been 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 SMSes 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 broadcast text and voice messages on which 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 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 TRAINING OF FRONTLINE WORKERS AND INTERPERSONAL COMMUNICATION

The following are highlights from 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 BridgeIT 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 Bihar is lack of proper tools through which they can convince the rural families on Preventive and curative health behaviours. Since 2010 provides frontline health workers with innovative job aid called 'Mobile Kunji' to function better in the health care services delivery. With launch of Mobile Kunji, workers with adequate training can 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. The app can be used 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.

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 carefully designed alerts which act as useful reminders for adults about healthy living as a way to prevent diabetes.

Hello Sakhi, Gujarat

The project is a helpline, located in 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 trying to provide counselling; referring 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, demand and necessity. 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.

3. 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. Since March 2010 the project has codified around 1.5 lakh schools with mid-day meal data.

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.

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 facilities 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.

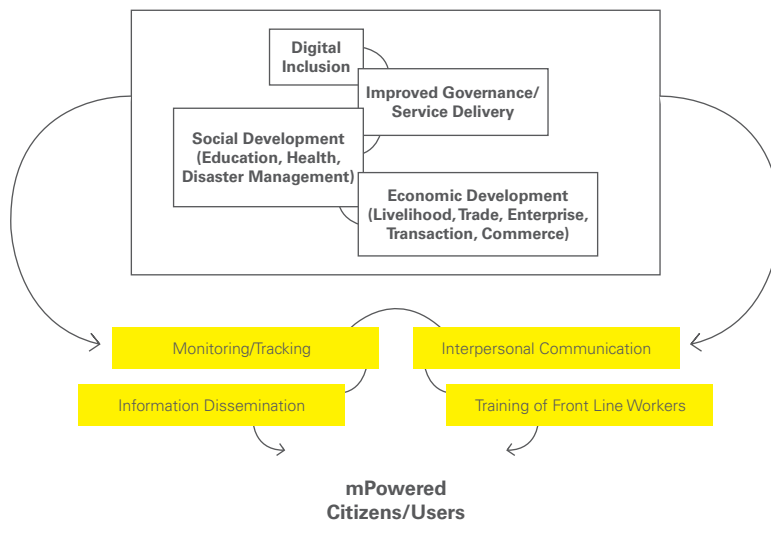
Hello Sakhi, Gujarat

Nano Ganesh, first launched in 2008, is a mobile-based wireless remote control and alarm system for water pumps, appropriately designed taking into consideration the

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, research and project evaluation. It requires further optimum project design and implementation with judicious resource allocation.

The Mobile India Development Ecosystem



5 EMERGING AREAS FOR CONSIDERATION

The adoption and use of mobiles for development has structural, functional, operational and developmental significance. The realisation of the full potential of the cell phone depends on policy, infrastructural and technological, service related and other challenges. There are emerging areas that seek research, policy and programme considerations from stakeholders to realise optimum gains from mobile based projects having relevance in social and behavioural changes. Figure 4 gives an overview of key areas for consideration in SBC through mobiles.

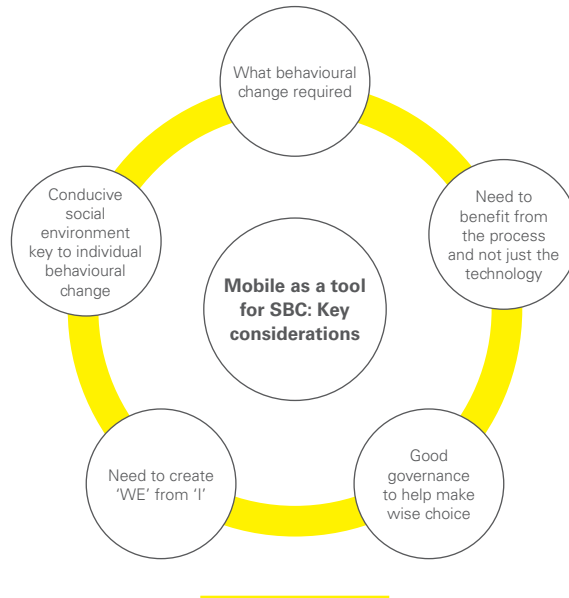
1. Tools of communication including mobile phones are effective medium to effect changes in social, cultural and development space through the human engagement factor. Question is what social and behaviour changes are sought for.
2. The challenge is in defining and accepting what constitutes a good behaviour change and in current scenario where mobile can also become a 'weapon of mass destruction', how effectively can it be used for a better change in society.
3. Mobile technology has demonstrative capacity to induce desirable social and behavioural changes. 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 the mobile domain. Data collation from different sources and analysis will give in the more authenticity and real understanding of needs and services relevant for programme and policy fields. As an approach, there is a need to develop consensus and create "we" from an "I" towards better plan, design, method

"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**



and delivery of services using technology including mobiles.

5. Mobile is an omnipresent technology that should be used to promote changes. The question is how to promote changes in behaviour 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 but it cannot bring change

by itself through information. What one can assess is how social change can be brought about 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 relevant question here relevant is how we can provide connectivity and access through affordable handsets and services to serve millions who are at the margins?



“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)

9. Demographic data is not available regarding the impact or reach of mobile phones. 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 that is more useful in understanding mobilebased 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 smartphones. 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 interventions but the need of the hour is a 20\$ smart phone which is a challenge in order to facilitate inclusion and development.
11. Local experts or their voice should be bought on board in order to understand and explore the mobile space. 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 the fundamental requirement along with effective collaboration. Gap analysis helps better design plan and implementation.
13. Uneven sectorial and geographical distribution is an 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 a 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 behaviour 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 more commonly used by 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. A comprehensive exercise needs to be done 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 is the in-built radio and torch in their phones. 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.

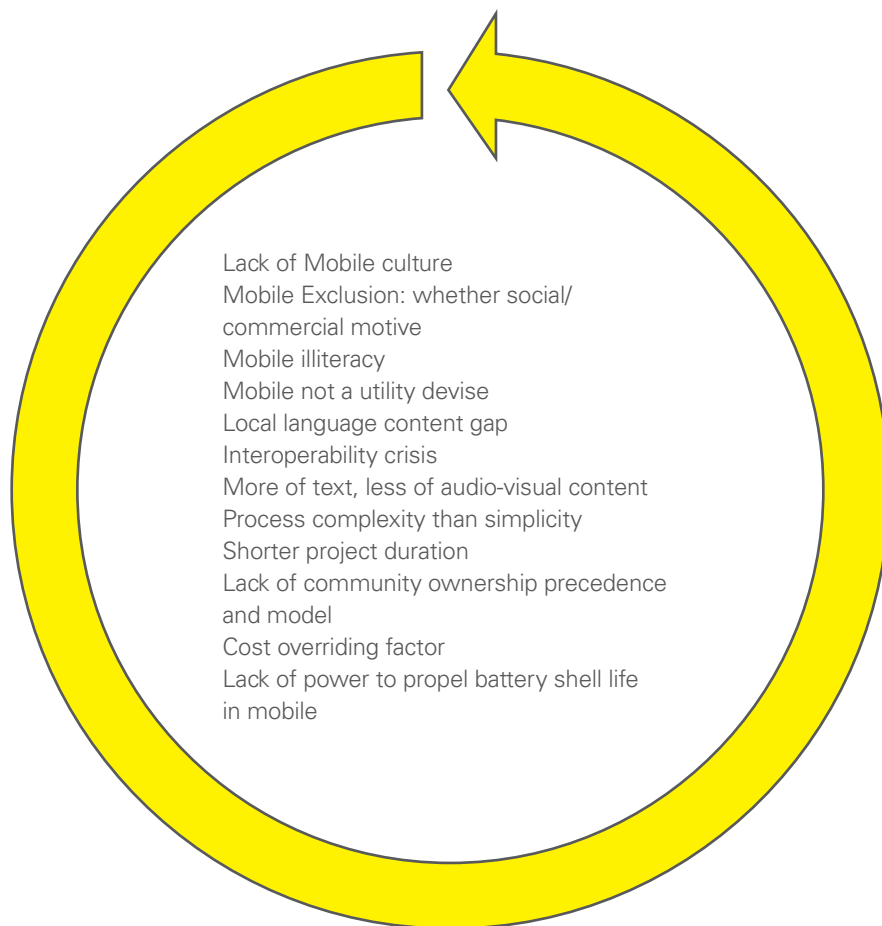
18. There is need for more diverse research on the mobile space for individual and social changes. Approaches like ecosystem partnership and amplification of human resources management will assist to understand mobile users and impacts. Census, NSSO, Leadership surveys are source of both quantitative 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 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, 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 thus 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 acquisitions¹⁴. 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 bust¹⁵. 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

¹⁴ Happy customers, no profits, <http://www.economist.com/node/18836120>

¹⁵ 3G fails to gather speed in India , http://www.zenunwired.com/2011_09_01_archive.html

called for. Cost effective and reliable network 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. Hypercompetition 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 networks¹⁶. 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. Manufactures 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

¹⁶ 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>



functionalities, but also have certain additional and customised features.

COLLABORATION 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

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 to cut across social, geographical, economic and cultural barriers. There is a macro consensus on why 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.

SUGGESTIONS

In continuation of 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 are efforts to develop mobiles with essential features at a low rate. Low cost devise with userfriendly 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 and 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). 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 layman 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 is to use smart phone here is a android-based apps 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 a 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 behaviour.
 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 exchanging 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 reasons are cited 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. In long term it 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 are 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 phone 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 is a limited understanding and there are 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 that the space for mobiles has been overwhelming in the overall communication landscape. Mobile Phones have 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-day consultation has led to two key outcomes. Firstly it has highlighted the quantitative space and strength of mobiles in terms of access, usage, and digital equity impact. Secondly 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 a 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 brining in desirable social and behaviour changes in them.

MSBC 2-days consultation is exploring role of mobile phones:

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

A comprehensive secondary and empirical research on use of mobile for social and behavioural change, considering there is limited authentic reference from the ground so far; this would involve detail studies of key MSBC practices on ground as identified during the consultation; the focus shall be on sourcing real-time data through survey and interviews to analyse real life analysis and impact of MSBC deployments. This could culminate into a directory of innovations as an output; this case study research should go deeper into the available numbers coming from Telcos and TRAI, to find meaning for MSBC.

2. **MSBC Consultations:**

In selected 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 to:

- 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:

At advocacy level, UNICEF to advocate on mobiles for SBC engaging central and

state governments, relevant departments and agencies. This advocacy shall engage stakeholders from industry, civil society agencies and others in an inclusive and diverse engagement. This approach at central and state levels is expected to drive workable partnership with stakeholders on ground based experiments to realize the impact of MSBC within communities.

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 all areas of practices with MSBC This annual event can 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 & 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 – 10:30 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	<i>Working Session I</i> <i>Status Overview: Mobile Reachability, Accessibility, Usability & Potential</i> <ul style="list-style-type: none">• 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 participated organizations

Rapporteurs & Moderation: UNICEF India & DEF

11:30 AM – 11:45 PM	<p>Reach and Access of Mobiles Presentation by: Mr. Subho Ray, President, Internet & Mobile Association of India (IAMAI)</p> <p>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.</p>
11:45 AM – 12:00 PM	<p>Mobile Usage & Potential [Content + Context] Presentation by: Milind Pathak, Global Head of New Business, One97</p> <p>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).</p>
12:00 PM – 12:15 PM	<p>Topline Findings from a study of 65 Tech4Dev Mobile Innovations Presentation by: Chirag Arora, IIT Delhi</p> <p>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.</p>
12:15 PM – 1:00 PM	<p>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.</p>
1:00 PM – 1:15 PM	<p>Conclusion & Recommendations by the Chair</p>



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	<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"> • 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	<p>Sub-group presentations</p> <p>Each sub-group will have 5 minutes to present their presentation/ recommendation points</p>
3:15 PM – 3:30 PM	<p>Q&A & Summary</p> <ul style="list-style-type: none"> • Q&A session has to be relevant and focused on the case presentations • A maximum of 5 questions shall be allowed by the Chair/Moderator <p>Chair will sum up with action points/recommendations on Use of Mobiles for Information Dissemination</p>
3:30 PM – 3:45 PM	<p>Tea Break</p>
3:45 PM – 4:15 PM	<p>Case study presentation: Use of Mobile phones for Monitoring/Tracking</p> <p>Case presenters</p> <ul style="list-style-type: none"> • Mobiles for Education: Sudhanshu Tripathi, Project Name: The IVRS based Daily Monitoring System (DMS); By: Mid-Day Meal Authority; Location: Uttar Pradesh The practice is 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	<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>



- 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.

	<ul style="list-style-type: none"> • 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"> • 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
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&As & Summary</p> <ul style="list-style-type: none"> • 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 <p>Chair will sum up the recommendations on the Use of Mobiles for Training of Frontline Workers</p>
11:15 AM – 11:30 AM	Tea Break
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"> • 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. • Mobiles for Health: Dr. Sandhya Ramalingam; Project Name: Nokia-Arogyam Diabetes; By: Arogya World; The Practice: prevent diabetic disease by influencing behaviour change • Mobiles for Environmental Sustainability: 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.
12:00PM – 12:30 PM	<p>Sub-group Discussion</p> <p>The participants will be divided into three sub-groups focusing on three</p>



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

12:30 PM – 12:45 PM

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

12:45 PM – 1:15PM

Q&As & 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 the recommendations on the Use of Mobiles for Inter-Personal Communication

1:15 PM – 2:00 PM

Lunch Break

2:00 PM – 5:00 PM

Working Session IV
Expanding the use of mobile phones: Partnerships and way forward

- 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.
- 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.

Session Chair: Ms. Sudha P. Rao, Adviser (WCD), Planning Commission, GoI

Session Moderator: UNICEF India and DEF

Rapporteur: DEF

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:

- 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: Anirban Mukerji, 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): Rajat Kathuria, 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): Arjun Venkatraman

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 – 5:15 PM

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)

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