



Research and Action Agenda for a National Broadband Initiative



Addressing The Needs Of Rural, Low Ability To Pay Customers Experiences of IFFCO and IKSL





Introduction

- **Fundamental Objective?**
 - Empowerment of our people living in villages
 - Improved decision making
 - Improved quality of living

- **Technology and the Need**
 - Information & services have been provided to villages in the last 60 years
 - Substantial infrastructure created
 - But reach and quality of content as well as delivery need improvement
 - Inherent limitations
 - Inequitable access
 - Prescriptive nature of content leading to indifferent demand
 - Low interactivity and participation
 - Inadequate access to governance



Information & Decision Making

- **Inadequate access** to information of right quality at the right time - limiting factor in decision making of people living in villages
- Could be accentuated by **inadequate assimilation** of information obtained from existing sources into knowledge
- **Information asymmetry** leads to sub-optimal decisions ranging from choice of crops to disposal of produce.
- **Imperfect information** and limitations on the comprehension of the available information leads to '**bounded rationality**'
- Access to information of **right quality, as perceived by the target beneficiary** - improves decision making capability
- A clearly laid out strategy has the potential for improved governance and inclusive growth

- Scope for Technology:
 - Potential to improve
 - Scale
 - Reach
 - Depth of services
- Recent attempts in adopting ICT as an intervention tool:
 - M S Swaminathan Research Foundation
 - Government institutional driven initiatives like Gyandoot, Warna
 - ITC's E-Choupal
 - IFFCO's cooperative model
 - NGO driven initiatives like Dhrishte, Honeybee
 - Academic initiatives like E-Sagu
 - Common Service Centre programme of Government of India
 - The proposed 250,000 touch points in Village Panchayats
- Such initiatives demonstrate:
 - The potential of technology
 - Improved feasibility and affordability to deploy and adopt technology

About IFFCO



**IFFCO : Nurturing
Mother Earth's Bounty**

- Set up as a cooperative society in 1967
- Owned by more than 40,000 member cooperatives
- Strives to improve agricultural productivity and welfare of farmers
- Largest producer and distributor of fertilisers in India
- Wide ranging expansion & diversification activities



Nurturing Bond with the Farmers

- IFFCO – an important stake holder in Rural India
- Brand Equity in Villages – a major strength
- Conventional Extension Activities throughout the country
- Special purpose institutions like
 - IFFDC
 - CORDET
 - IFFCO Foundation
 - IKSL
- ICT driven initiatives for empowerment of farmers



IFFCO

ICT Initiatives of IFFCO for Farmers & Cooperatives



**Content,
e-services**

**Dissemination
Cyber Dhabas
(Internet Kiosks)**





इंडियन फार्मर्स फर्टिलाइजर को-ऑपरेटिव लिमिटेड



खेती की जानकारी



पोषक तत्वों के कार्य



पोषक तत्वों की कमी



मौसम की जानकारी



अन्य राज्य



मंडी सूचना



एन सी डी ई एक्स



प्राथमिक शिक्षा



कंप्यूटर के बारे में



क्विज



कृषक गीतांजलि



इफको के अधिकारी



विशेषज्ञ से पूछें



एनपीके/डीएपी

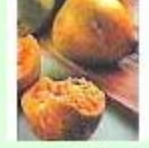


यूरिया

इफका
उत्तर प्रदेश



इंडियन फार्मर्स फर्टिलाइजर को-ऑपरेटिव लिमिटेड
उत्तर प्रदेश

आम 	केला 	छीकू 	अमरुद 	पपीता 	संतरा 	सेब 
आड़ू 	ग्रेपफ्रूट 	जामुन 	अंगूर 	लीची 	बेर 	अनन्नास 
अनार 	आलूबुखारा 	फालसा 	आंवला 	नाशपाती 	शहतूत 	चेरी 
कटहल 	खजूर 	नींबू 	स्ट्राबेरी 	करींदा 	बेल 	बादाम 
माल्टा 	लोकाट 	शरीफा 	कमरख 	अखरोट 	खुबानी 	



इंडियन फार्मर्स फर्टिलाइजर को-ऑपरेटिव लिमिटेड
Uttar Pradesh
उत्तर प्रदेश
Banana
केला
General



भूमि की तैयारी



सिंचाई



बीज एवं बुवाई



पौध संरक्षण



खाद एवं उर्वरक प्रयोग



कटाई एवं पैदावार



http://10.11.1.6/applications/Firstaid.nsf/2e91dcf4ecb2fe8665256df80026859d/a8992dec1f4752bb652 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail New Tab

Address http://10.11.1.6/applications/Firstaid.nsf/2e91dcf4ecb2fe8665256df80026859d/a8992dec1f4752bb65256ea80038420a?OpenDocument Go Links

Search Web Anti-Spy Mail Shopping My Yahoo! News Games

http://10.11.1.6/applications/Fi... Add Tab

IFFCO



सांप के काटने पर

Snake Bite

Details

सांप के काटने पर

- ☐ सांप का काटना जानलेवा साबित हो सकता है ।
- ☐ कई बार सोते में काटने पर पहचानना मुश्किल हो जाता है कि किस चाज ने काटा ।

पहचान

- ☐ त्वचा पर दो दांतों के निखान नजर आते हैं ।
- ☐ काटे हुए स्थान पर दर्द होता है ।
- ☐ काटा हुआ स्थान लाल पड़ जाता है और उसके चारों ओर सूजन आ जाती है ।
- ☐ सांस लेने में कठिनाई महसूस होती है । कभी-कभी सांस रुक भी जाती है ।
- ☐ नजर धुंधलाने लगती है ।
- ☐ लार बहने लगती है और बेहद पसीना छूटने लगता है ।



Done Local intranet

start Workspace - Lotus N... CEO_IKSL.ppt http://10.11.1.6/appl... 2:47 PM



Learnings

- **Rural touch screen based information kiosks are**
 - Useful in providing information & services
 - Potential for extending e-services
 - Joint initiatives can facilitate scalability
- **Limitations**
 - Last Mile Connectivity
 - Reliability
 - Power
 - Access Points
 - Cost on HW and Network
 - Gender Inequity
 - Sustainability dimension



Learnings

- **Online Internet based Recruitment Tests encourage rural participation**
- **Access to multiple services like health, livelihoods, have the potential to encourage greater usage**
- **In addition to provision of information & services, need for re-enforcement**
 - **Need to take the services directly to intended beneficiaries**



IFFCO Kisan Sanchar Limited

- A joint venture promoted by IFFCO in 2007 along with Bharti Airtel Ltd.
- **Mission**
 - Empowerment of people living in rural India
 - Provide pertinent information and services through affordable mobile communications
 - Improve decision making ability of farmers
 - Work with like minded organizations for e-transformation of villages



Challenge

- **Providing information directly to farmers**
- **Delivering location specific, time sensitive information and important alerts**
- **Ensuring that this service does not add economic strain on the farmers**



Solution ..!



- Providing leverage to the communication needs of farmers
- Converting their Mobiles into Dynamic Power Houses of Knowledge



IKSL's Model

- **Sustainability thru Revenue Share from Service Provider**
- **Information based services to people living in villages**
 - Farmers
 - Fishermen
- **Promote focused communities for greater focus**
- **Revenue generating opportunity to**
 - Cooperative Societies
 - NGOs
 - Livelihood opportunities for rural youth as product promoters
- **Promote m-commerce in the long run**



Benefits of Alliance for IFFCO Cooperatives

- **Source of continuous additional income for cooperatives**
 - Through activation of new connections & recharge/sale of talk time
- **Improving financial viability of cooperatives**
- **Skill enhancement for society members**
- **Strengthening bonding with society members**





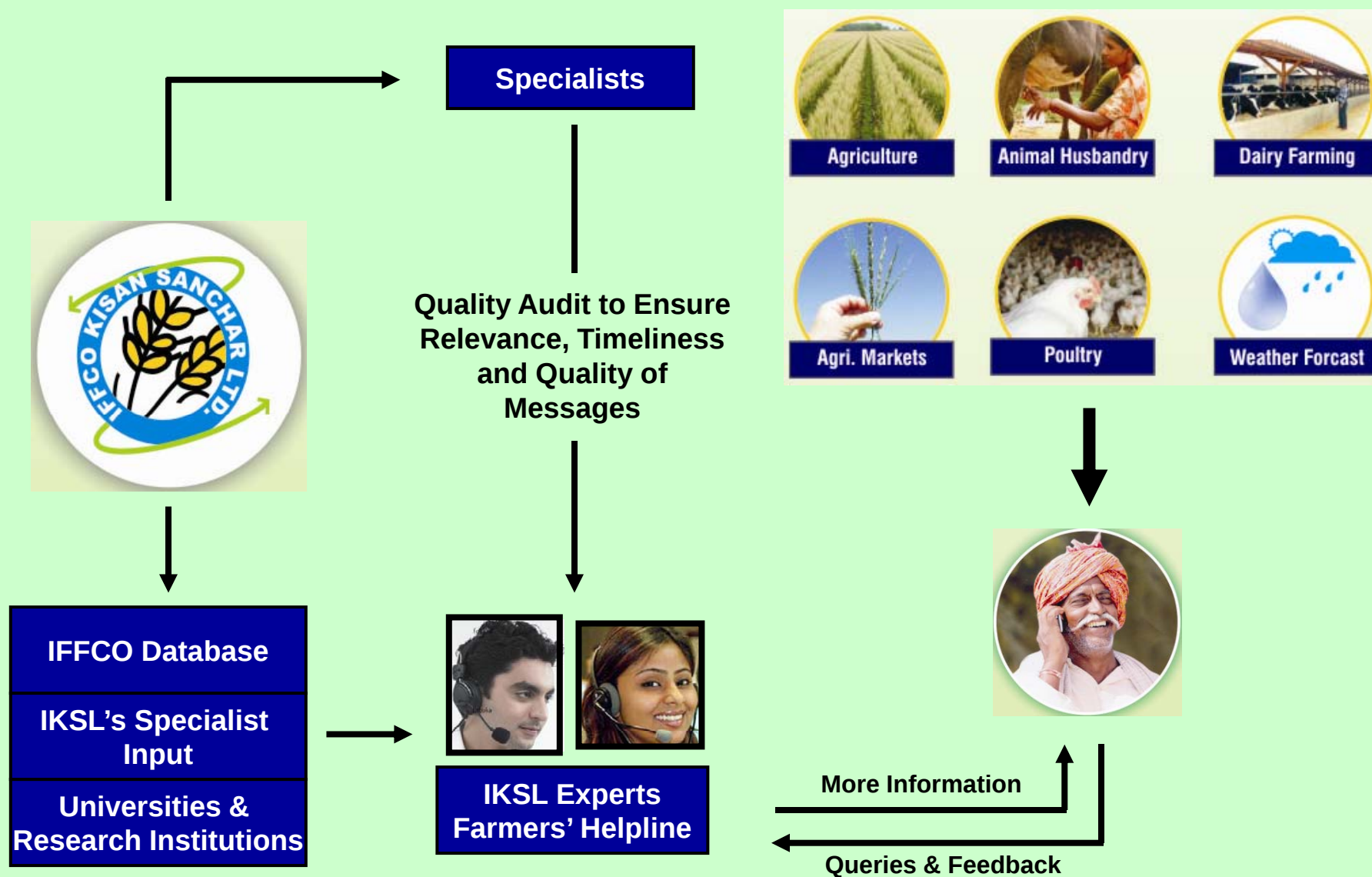
Services to Farmer

- **Value Added Services (VAS) on IKSL's GREEN SIM CARD**
 - **5 Free Voice Messages every day**
(State, zone or community level messages)
 - **Rural Help-line**
(534351 from Green SIM Card)



IKSL VAS PLATFORM

FIVE FREE VOICE MESSAGES





HIGHLIGHTS OF VAS

No. of states covered	18
No of Zones in state	51
Content Managers	17
Experts	57



HIGHLIGHTS OF VAS

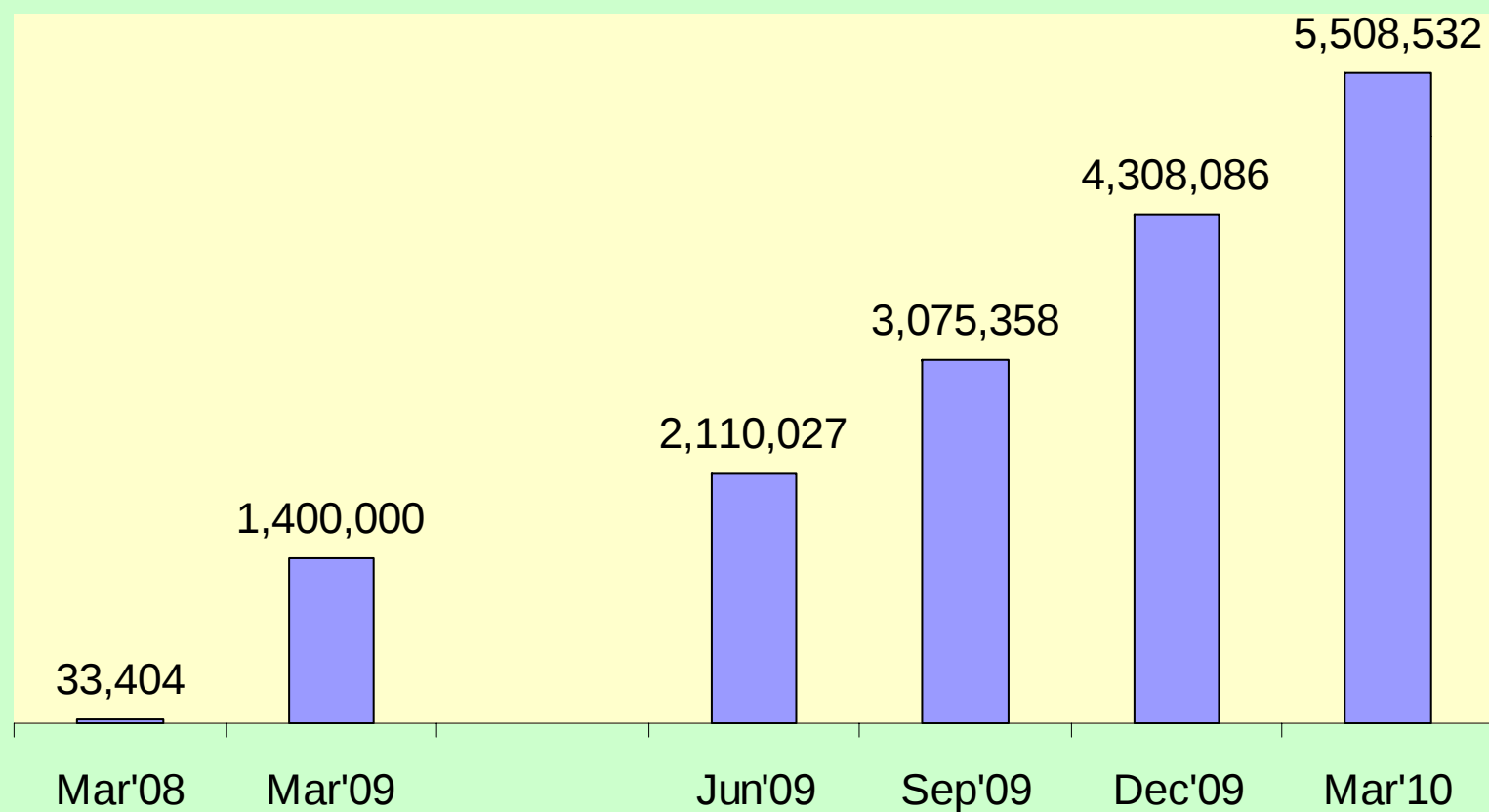
Particulars	Apr09- Mar 10	Since Inception
Total messages broadcast	59,868	1,10,571
Questions on Helpline	57,082	93,318
Feedback	2,933	5,431
Phone In Expert Programs(+)	142	142
Quizzes (+)	330	330

(+) Started in Jun 2009



Subscriber Base

Gross Activations During Mar 2008 - Mar 2010





Feedback from Third Party Survey

	All	UP	Bihar	KK	Rajasthan
Base: All	1169	329	314	253	271
	%	%	%	%	%
Very Good	67	64	63	73	71
Good	31	33	37	25	28

Consumers enjoying their experience with IKSL connection... VAS getting higher mentions by UP and KK consumers...who bought the connection for VAS related reasons from the cooperatives...

“Kheti ki saari jaankari muft mein milti hai. Aur kya chahiye. Mausam ki jaankari se kaafi faayda hota hai. Sahi samay par sab kaam kar sakte hain. Nuksaan bach jata hai”

Bihar and Rajasthan , where only 20% of the consumers bought the connection for Value added services, have 50 % /30% of the buyers stating VAS as delight factor along with Network and call rates.

	All	UP	Bihar	KK	Rajasthan
Base: All	1169	329	314	253	271
	%	%	%	%	%
Value Added Service	59	70	51	83	31
Farming Information	54	65	50	70	29
About farming	44	54	39	61	21
About fertilizer	6	4	2	21	-
Animal Husbandry	6	2	5	19	1
Network is good	34	25	47	9	55
Low call rates	27	17	18	16	62



Feedback from Third Party Survey

“Abhi kuch dino pehle mujhe phone par mandi ke bhaav maloom chale the. Accha rate mil raha tha. Isliye maine fasal jaldi kaatkar bech di. Ab kam daam mil rahe hain. Accha hua bech diya “



	All	UP	Bihar	KK	Rajasthan
Base: All	721	216	181	193	131
	%	%	%	%	%
Farming Information	88	83	93	86	90
They giving information about farming	63	59	67	63	64
They give information about fertilizer	19	13	13	42	2
Messages about weather forecast	11	6	4	1	41
Information about mandi	12	11	4	4	38
Other Useful Content	8	10	5	13	1
Animal Husbandry	16	5	13	36	9



Quality Processes

- **Planning of voice messages based on local agricultural situation & queries on Helpline**
- **Messages of one minute in local language vetted by experts**
- **Feedbacks from farmers to improve the services**
- **Periodic surveys conducted by external agencies**
- **Quality Audits of delivered messages by eminent specialists**



Promotion of Focused Communities

- **To Provide focused services to a Community with a common interest**
- **Approach**
 - To forge groups with a common interest – common crop, common occupation
 - All 5 voice messages on area of interest
 - Access to related experts thru Helpline
 - Special programs in association with other stake holders / NGOs
 - Encourage intra-Community programs & interaction



Focused Communities (Illustrations)

- **Basmati Rice Farmers in Karnal, Kaithal & Kurukshetra in Haryana**
- **Sheep & Goat Rearing poor women in Theni in Tamilnadu**
- **Fishermen in Coastal Tamilnadu**
- **Horticulture Farmers in Uttar Pradesh**
- **Micro-finance with Sujeevan (NGO) Karnataka**
- **Sugar Cane Group with Sugar Mills in Maharashtra**



Community of Basmati Rice Farmers

- **Partner** – Haryana State Cooperative & Marketing Federation (HAFED)
- **Implementing Agency - IKSL**
- **Objectives**
 - Improving Quality and yield of Basmati Rice
 - Reducing cost of cultivation
 - Increase Income
 - Empowering farmers thru Knowledge input
- **Facilitate higher quality & quantity of Basmati Rice procurement by HAFED**
- **Coverage**

– Districts covered	4
– Villages	208
– Contract farmers	816
– Area	5970 acres



Benefits to Stake Holders

- **Farmers (Target Group)**
 - Increase in yield by 16-25%
 - Improved quality
 - Low input costs
 - Higher produce Price
 - Access to specialists / Voice Messages
- **HAFED (Sponsor)**
 - Loyalty of Farmers
 - Increase in Procurement by 30-35%
- **IKSL (Implementing Agency)**
 - New connections
 - Talk Time to farmers
- **IARI/KVKs/CABI (Institutions)**
 - Greater association with Farmers
 - Improved direct contact
- **NGO**
 - Higher visibility / Farmer contact

Contd.



Community for Women

- **Partners** : Vidiyal, Common Wealth of Learning
- **Location** : Theni (Tamilnadu)
- **No. of Women members** : 550
- **Focused Voice Messages & Helpline on**
 - Sheep/Goat & Cow Rearing
 - Education on Women's Rights with UNDP support for Vidiyal
 - Other areas of interest (Women's Health)

Contd.



Benefits for Women

- **Improved Income levels of members**
 - **Loan to create assets** - **Rs. 11.3 Mn**
 - **Asset multiplication** - **Rs. 27.4 Mn**
 - **Loan repaid in the first year** - **30%**
- **Banks willing to finance more women**
- **Group to be extended to 5000**
- **The Women's Community received International Appreciation**

Contd.



Periya Jakkhammal



Periya Jakkhammal, an active member, was invited to address the Conference of Education Ministers of Common Wealth Countries in July 2009 at Malaysia



New Inter(info)mediaries

- **New technology driven channel of Intermediaries**
 - **To act as catalyst in technology penetration in rural India**
 - **Very low transaction costs**
 - **Incentive thru leveraging of communication needs**
 - **IKSL – Facilitator as a Technical Catalyst**
 - **Cooperative Societies & NGOs – The New Intermediaries with a mission**
 - **Initial support needed to reach scale**
 - **Benefit to all stake holders in the long run**



GSMA 'KISAN Helpline' Project

- **Total Grant : US \$ 450,000**
- **Activities Planned**
 - **Strengthening ICT Infrastructure**
 - **Process Review & Re-engineering**
 - **Development of applications to equip Content Managers**



Opportunities

- **With better connectivity, particularly with Broadband, better services related to agricultural extension, e-commerce & e-governance can be provided in rural India thru Internet**
- **Multi-institutional initiatives can improve services and scalability**
- **Availability of 3G can enhance the quality and depth of services on the mobile**
 - **New generation of extension services based on multimedia**
 - **Provides major scope in improving delivery of education, health and other requirements**



Challenges

- **Initial cost may limit full utilisation of potential of technology**
 - **Development of suitable content**
 - **Access points for kiosks**
 - **Suitable mobile gadgets**
 - **Network costs**
- **Appropriate policy measures to create conducive environment for developing content, HW, Network**



Policy Interventions

- 1. Accord ICT Infrastructure the priority at par with other infrastructure projects**
- 2. Promote Innovative Projects to design & develop appropriate content & services**
- 3. Evolve conducive environment for PPP models for development & dissemination of content and ensure sustainability thru revenue generation**
 - Partners - GOI, Service Providers, Stake Holders**
 - Approach: Promotion of 'National Forum of Broadband Users' for coordination**



Research Questions

- 1. Scientific evidence to show that broadband has the potential to improve quality of living and lead to empowerment of users – particularly in rural areas?**
- 2. Possible hindrances in adoption of broadband – affordability, utility, accessibility?**
- 3. Role of PC based initiatives and mobile based initiatives; and how they can complement each other?**
- 4. What specific content and services are needed by rural users and how broadband can add further value to this demand?**



Conclusions

- 1. Affordable PC & Kiosk based services can promote e-services in rural India.**
- 2. Mobile telephone, is an effective tool for Mass Communication with the opportunity of individual contact.**
- 3. Multi-institutional models can leverage synergies.**
- 4. Potential for benefit for stake holders in the long run.**
- 5. Barriers for adoption may be addressed by leveraging beneficiary's needs which are 'marketable'.**
- 6. Strengths of Mobile based services for rural empowerment-**
 - Accessibility, Scalability, Replicability, Sustainability.**
- 7. Initial Cost of development of content & services expensive.**
- 8. Policy Interventions conducive to infrastructure roll out crucial.**

