

CASE STUDY: Seamless Information Flow

Context

By the year 2030, India will have reached a state where the 'water gap' will be at an alarming 50%¹. At the current share of 70%, irrigation has engorged a massive share of water consumption in this country and continues to increase at a rapid rate.

For the common categorization, water is available in either surface sources (like rivers, ponds or canals) or ground sources (like tube wells) which can account for up to 86% of the total withdrawn water for irrigation.

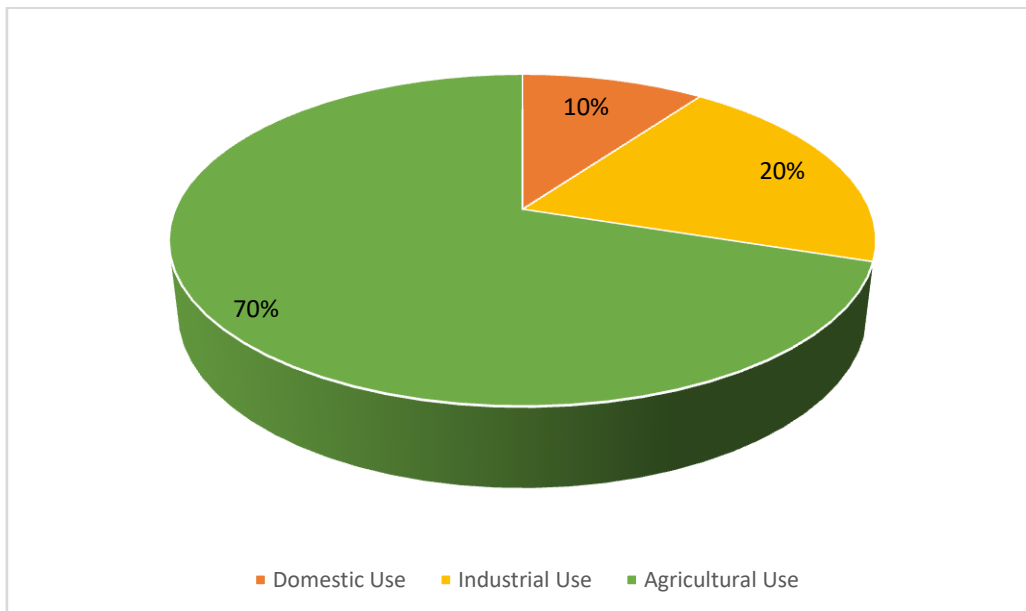


Figure 1: Annual Water Consumption in India

¹ UNICEF, FAO, and SaciWATERS. 2013. Water in India: Situation and Prospects.

Without either sensitivity or knowledge towards the urgency of the falling water table, water extraction through tube wells has seen a dramatic increase in Uttar Pradesh.

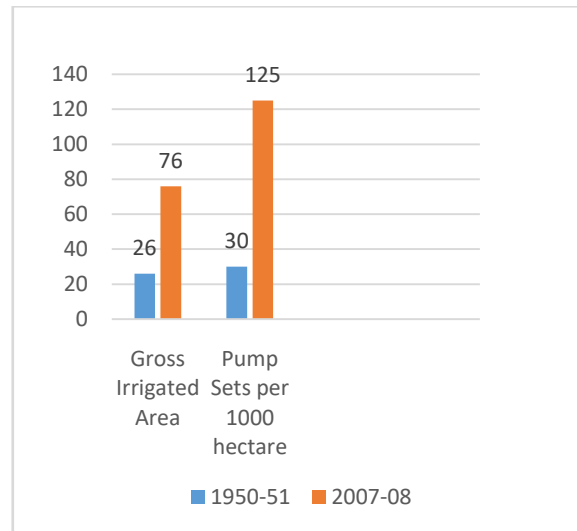


Figure 2:Ground Water Consumption Comparative

With rampant exploitation of ground water by farmers on the basis of their field size is leading to rising concerns about equity and equality along with responsibility in consumption of water. Holding these key points as a focus, the National Water Policy, 2012 reinstated this urgency as a guiding principle for recommendations to evolve an agricultural system which can economizewater use and maximize the value fromwater and also enhance water use efficiencyby curbing wastages². Thus, with the rising in consumption and consistent fall in the water table, a need is felt to make the knowledge of this crisis available where it can most be curtailed. For this cause, a pertinent need has been felt to create an information flow that not only allows for the constant reminder of this crisis to reach the targeted communities but also for information regarding processes, solutions, interventions and policies to reach its intended target, and for a reverse flow to be able to record the response or needs from the grass root level.

²<http://mowr.gov.in/writereaddata/linkimages/NWP2012Eng6495132651.pdf> (last accessed on May 10, 2014)

Background

In 10 districts of Eastern Uttar Pradesh, HUF has initiated a program on 'Water for Public good' in partnership with PANI as project implementing agency (PIA), which intern involves 10 grass root NGO sub-partners of PANI for ground implementation of project. Program commenced in November 2014 with the prime goals to improve water productivity and alleviating poverty of 26500 small and marginal farming household by promoting water efficient and sustainable agriculture practices amongst farming community. This project has been appropriately designed to layer the water component over an on-going project of agro based livelihood program FASAL, under implementation at the same locations.

Since the perspective of stakeholders at large and rural community in particular regarding water as a valuable and lasting natural resource was found very unclear and water management behaviour quite irresponsible, it was critical for project to educate all the actors by transmitting information, transferring knowledge and sharing experience to break the ice. Equally important was to capture feedback, views, opinion, suggestions and experiences of various actors in the loop.

Therefore, it was necessary to have a communication system, which is designed to provide flow of information through the network of actors with ease and at full efficiency. Since the target community of project is largely from lower literacy segment and sometime totally illiterate, it was important to have a simple, effective and feasible communication system with high degree of information access to all the participants, including front line workers of program.

Strategies

With the analysis of the necessity, a strategic plan of action has been built to facilitate a seamless flow of information from either ends of the channel. For this, the nature, methodology, tools and management of communicated content was determined with an understanding of the context in which it was to be disseminated. One of the primary determinations in this process was to ensure that not only should the content being transfused into the community be factually correct but it also be legible in terms of its relevance, contextualisation and tone, to the best of the understanding of the said community.

In the various methodologies, the use of most context-appropriate ICT content is advocated. Through experience and observation, it has been concluded that the medium of communication is far more effective if it is not restricted to a uni-dimensional, textual frame. Thus, more

Key Instruments for Information Flow:

- Training Programs
- On-site Learnings
- Exposure Visits
- Demonstrations

unconventional channels like picture presentations, locally produced videos with language and culture specific annotations have been exercised. Furthermore, with fast evolving internet access and usability, applications like Youtube and Whatsapp are also used judiciously for efficient and effective exchange of audio-visual communication content within no time. Along with information exchange, information collection and data management is also been considered a critical part of communication for impact assessment as well as for the validation of information being disseminated. For this effect, different software like MIS and FMIS, COCO and Tally are employed to ensure data reflects actions and impact at both the central level as well as the front-line level. Transparency, efficiency of time and resources as well as accountability are the key features that become a compliance as a consequence of such strategic communication designs enabling each engagement to be monitored and evaluated at all levels in management as well as the community.

COCO (Connect Online- Connect offline)

Addressing the need of scalability, accountability and permeability of data across intervention geographies, COCO allows for data entry and accessibility in both online and offline modes, thereby reducing the delay and challenges arising due to internet connectivity by allowing data entry in both online and offline modes.

Communication becomes unhindered and efficient if its consistency and context can be analysed and assured. Strategically, correct and appropriate definitions of the various verticals of communication ensure the desired qualities. POPs (Process

Of Practice) and IEC materials- pamphlets, posters or banners, are built as per relevance of chosen practices and customised into local language for greatest impact. Along with the bottom-up approach of ensuring holistic communicational flow, several conventional methodologies are also adopted. Agenda specific activities like regular and inclusive group meetings and events or periodic field visits for insurance of consistent transmittance of information from the field areas into system. An amalgamation of the traditional with the advanced processes in communication help to bridge the gap necessary for intervention.

Innovation

Although conventional methods of communication have their own validation and acceptance for community level advocacy and interventions, the rise in access to digital media and urgent need of outreach on a large scale has encouraged PANI to innovate and adopt new strategies and tools to ensure efficient communication mechanisms.

Visual Aids

To enhance the impact of intervention, to make the content community relevant and to increase adoptability on the basis of the communication activities, PANI adopted the *model of video production and dissemination* on area specific issues in the local language, involving the local community members as a means to increase relatability and believability amidst the community. Audio-visual communication, designed in an attractive package of storyline, customised language and colloquial bearing not only have a high audience appeal but also had a greater retention impact and legibility, hence increasing the rate of adoption. The approach is neither dependent on the literacy of its

target audience nor is it likely to address an uninterested group of people since the screening of these videos are made amidst focussed groups who show interest in the subject or the intervention in the first place.

Application Aids

Considering the availability of smart phones at the level of the field supervisors monitoring the intervention, several dedicated whatsapp groups are created to ensure and encourage prompt demand and supply of information both at the central, as well as the grass-root level of the organization. Not only has this helped to bridge the time lag between the flow of information but also enhanced a real time communication flow at a platform where group discussions, exchange of ideas and comparison of actions or circumstances have become seamless.

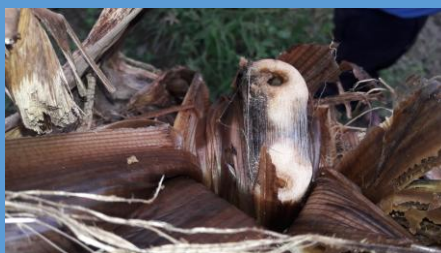
Data Management

The introduction and usage of a data collection tool- COCO (Connect Online, Connect Offline) has also helped to increase data monitoring, evaluation and transparency of intervention status in real time. Data analysis are critical features that help to evaluate field status, to identify gaps and therefore redressal, all in semi-real time frame. The MIS used also ensures trackability of individual farmers at every step and completely eliminates duplication errors through unique codes.

Implementation

To introduce the communication designs in an inclusive and relevant fashion, PANI first conducted in-depth induction activities in the selected villages with the aim of orienting the community with the importance of the subject and the objective of the project for appropriate redressal. With successful orientation and collective agreement, farmer groups were formed to execute effective implementation. These groups were made

Banana Salvation Via Tele-Consultation



Banana is a disease sensitive plant that requires excessive care which is often a deterrent for farmers for its cultivation. In one of the project intervention areas of District Shrawasti, a farmer- Shiv Kishor(Village Bhatpurwa) planted banana in 0.25 acre of his land, albeit apprehensively.

Shiv Kishor found himself helpless when a stem borer disease threatened to topple over his plantation. At this stage, he brought up the discussion in his farmer group meeting, prompting the field supervisor to take a photograph of his field. This was immediately shared in the whatsapp group, addressed promptly by the subject experts of FASAL project team.

Timely application of the treatment helped Shiv Kishore save his plantation, allowing him and other farmers around some confidence to access information in the future.

keeping in mind important factors like accessibility, similarity of interests and compatibility of members for maximum impact.

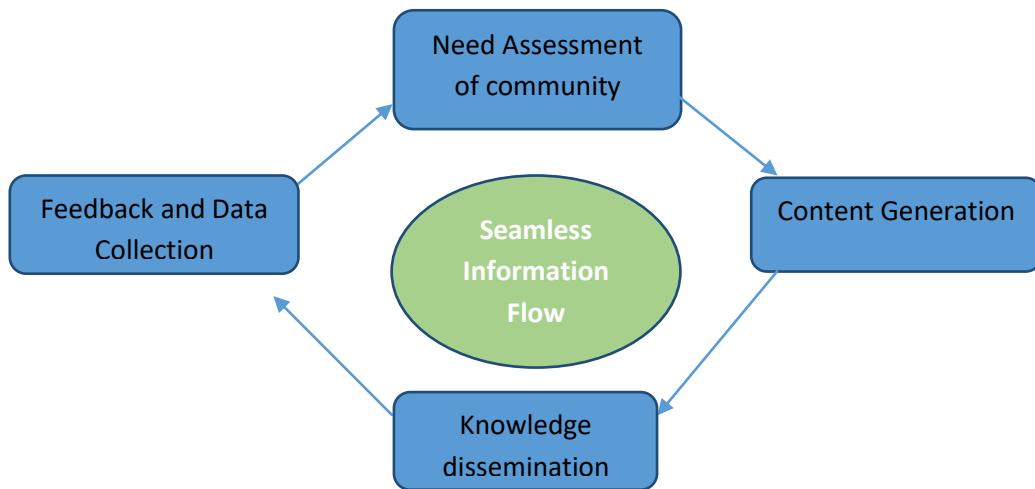


Figure 2: Process of information cycle

While the farmer groups were being made, a need assessment made during mass discussions helped to enlist the required areas of focus and appropriate content was designed and developed as per the intervention POPs. These communication tools included videos for screening, relevant formats for record keeping and data collection, trainings and capacity building designed for the purpose of capacity building and knowledge exchange. For nuanced implementation of these tools, training and sensitization modules were developed with the aim of organizing and standardizing capacity building activities.



Figure 3 video dissemination as an effective information tool

As per demands generated and needs assessed, videos have been produced in different districts and screened for knowledge dissemination after approval. The data management systems were brought into effect starting at the level of the videos

produced up until the tracking of adopted practices. The next step after execution of information flow at this level was to collect actual result and feedback of the activities. This was done through thoroughly designed tools like fact sheets where feedback and suggestion from farmers are recorded, video screening forms that record the reactions, questions or suggestions made by the group members during the actual information flow and specific surveys conducted to understand the farmer response or needs on topics like micro planning or crop planning.

The need of refeeding the information of intervention into the loop of policy making, decision making and strategy designing has been felt and understood deeply. Once the data from the field has been collected and analysed, it is disseminated amidst relevant stake holders that include the project and field team, involved community as well as government bodies and organizational consortiums like SATHI network wherever deemed important.

Apart from the documentation designs or tools for communication, PANI has also made attempts to create a hub for interactive exchange of information called the Farmer Resource Centre (FRC) as well as to create demonstrational models and placement of barefoot experts to provide an in-depth

FARMER RESOURCE CENTRE

An FRC is a facility hub built in the community that any farmer can access for information, resources, support or purchase. Instruments of unconventional technology (like conoweeder), pesticides or fertilizers are made available for the farmer to use at a minimal price (or on rent). FRCs are managed and run by community members; a joint account is created for financial transactions.

and personal reach with the farmers for onsite communication, thus covering a range of approaches in an inclusive and decentralised manner.

Challenges & concerns:

In the attempt of making the process of information and communication flow as unhindered and effective as possible, several challenges have been observed during the project intervention.

To begin with, literacy has been a consist challenge amidst the target community which not only limits the mediums of communication that can be exercised effectively but also impose challenges of loss or alteration of information that may occur in the process. With illiteracy, another critical observation has been that of lack of education and a resultant aptitude that is important to information acceptance. This has made the process of orientation relatively difficult and consuming in terms of time and resources.

Alongside, the physical vastness of the spread of intervention areas, along with the incredulous diversity in the included communities have made consistency and standardization in communication a constant challenge. Where stress has been to increase the relevance and appropriateness of the information flow as per the specific needs of the community, its enforcement through diversity has been a challenge, especially in cases where intervention is being introduced in remote villages that are away from spill over effects.

Lessons learned

Several key learnings have been derived during the interventions that have been recycled into policy and strategic development for better impact.

- Visual medium ensures uniform and distortion free communication that is both scalable and trackable in terms of its progress and impact.
- Use of ICT (like video, you tube, WA, COCO etc.) are uniformly accepted tools for fast and real time information transfer at a very low cost.
- Creating a seamless (direct or indirect) information network between the farmers and other stake holder along with the subject experts has not only helped to enhance and improve the quality of information provided but also consequently increased an active demand for this information.

Outcomes

With flow of information, behaviour change, consecutive change in actions and relevant feedback from the community is imminent. This further helps to enhance the intervention and the ultimate flow of information to complete the channel. With the various instruments of communication being employed in the project, over 10.5 thousand farmers have been sensitized on water related management and conservation practices till March, 2017. A variety of tools like POPs, Videos and IEC material have been customized and contextualised to be made available to the community for consumption at critical and appropriate times. Several behavioural instigations have also led to accountable initiatives like sending proposals to MNREGA (Mahatma Gandhi Rural Employment Guarantee Act) that may soon be converted into infrastructural development (more than 1500 proposals have been sent to MNREGA for soak pit construction as a result of the intervention).

Not only has contextual information become available to the community for its use, but the feedback mechanism also reveals that this information is being consumed, benefitted from and in-turn, reverted to for further evolution by the community itself. Participation in building and contributing to some of these tools (like videos or enquiries at FRC) are clear indications of the

progress.



Figure 4: Community Participation at an FRC

It may be built from here that sustainable assets of information flow like communication groups, topical videos and the FRC itself be made stronger and more meticulous in their processes. If the external information, coming from the top can be amalgamated into these possibly self-sustaining models of communication, this can not only lead to far more accessibility of critical information and consequential action at the grass root level but also facilitate easier and more efficient policy making through bottom up approach.

Sl.No.	Elements	Process	Process No.	Score
1	Perspective	P1: Evidence of a formal Perspectives to water scope, its rationale and strategy at the project level	P1	
		P2: Multiplicity of Benefits for life and livelihoods	P2	
		P3: Availability of benefits to man and animal	P3	
		P4: Intent is to help both in conservation and management of end use	P4	
2	Inclusivity	I1: Evidence of a formal water inclusivity scope, its rationale and strategy at the project level	I1	
		I2: One or more of social, Hydrological, Ecosystem and Institutional aspects considered and evident in design and execution	I2	
		I3: Enablers like Technology, traditional wisdom used to evidence neutrality and inclusion	I3	
		I4: Using one of social, Hydrological, Ecosystem or Institutional aspect to influence one or more of other aspects	I4	
		I5: During execution, creating and disseminating a local vocabulary that sensitizes one or more of the above aspects	I5	
3	Seamlessness	S1: Evidence of a formal water seamlessness scope, its rationale and strategy at the project level	S1	
		S2: Continuity of support to community from NGO/LP irrespective of donor energy	S2	
		S3: Capacitating (techno managerial and formal and informal	S3	
		S4: Evidence of mechanisms for timely flow of information pertaining to solutions practiced in project from global/national/state to local levels and the reverse	S4	
4	Outcomes	O1: Demonstrate in their design and execution the focus on one or more of short term results, long term results, agriculture that promotes self-reliance and food security, water use that responds to availability and group norms	O1	
		O2: Clarity of processes deployed for one or more of the above as the case may be	O2	
		O3: Community enabled to differentiate between outputs and outcomes and internalize this in its working	O3	
		O4: Understanding evidenced regarding surface and ground water behavior by the community in designing and executing interventions	O4	
5	Efficiency	E1: Evidence of understanding on and efforts to enhance productivity of water	E1	
		E2: Evidence of processes to keep the cost of water per cubic meter within the proposed cost to HUF	E2	
		E3: Evidence of using different skill sets and competencies in community in this project	E3	
		E4: Evidence of reduced cost of cultivation without	E4	

		agriculture production compromised		
		E5: Evidence of complementing the PRIs and other local Government in their efforts to avoid duplication and enhance natural resource productivity	E5	
6	Harnessing Capabilities	HC1: Evidence of associating with external expertise for benefit of local communities and building their expertise on water and agriculture	HC1	
		HC2: Evidence of incremental transfer of responsibilities maintenance and managerial responsibilities to communities	HC2	
		HC3: Evidence of processes to prepare community institutions and grade them to take over responsibilities	HC3	
		HC4: Evidence of transferring an integrated understanding of water to communities that include technical, social and environmental dimensions	HC4	
		HC5: Business playing the role of supporting such processes	HC5	
7	Knowledge	K1: Evidence of a formal water knowledge scope, its rationale and strategy at the project level	K1	
		K2: Evidence of documentation and learning processes associated with the project	K2	
		K3: Identification processes for unique experiences that have a bearing on design and execution of context specific solutions	K3	
		K4: Evidence of processes that have engaged with policy spaces to familiarize them with such learning for land and water management	K4	
		K5: Evidence of processes that have engaged with policy spaces to absorb such learning for land and water management into policies and programs of Government, corporate and other institutions	K5	
		K6: Evidence of processes to transmit knowledge underlying Government programs to local communities	K6	
		K7: Evidence of processes for upgrading interpretation and methodology of KPIs	K7	
8	Innovations	INO1: Processes to capture knowledge and perspectives from diverse fields and geographies	INO1	
		INO2: Evidence of application this knowledge to the field of water management in communities including social, environmental and economic aspects	INO2	
9	Collectivization	C1: Evidence of a formal water collectivization scope, its rationale and strategy at the project level	C1	
		C2: Evidence of collective action that could be comprising one or more of community groups, entire community of a village, community of block/district, several organizations (including business and others)	C2	

		C3: Evidence of structures and systems and working arrangements for such collective action	C3	
		C4: Evidence of processes to capture change in individual interest that recognizes group interest	C4	
		C5: Evidence of solutions implemented through such collective action and formally recognized by all the actors, either individually or collectively	C5	
		C6: Evidence of efforts made for mobilizing co-funding and meeting the needs and requirements of co-funding agencies	C6	
10	Governance	G1: Evidence of a formal water governance scope, its rationale and strategy at the project level	G1	
		G2: Detail of steps to be deployed with various stakeholders to execute such a strategy	G2	
		G3: Community processes that reinforce the shared nature of water and therefore institutions that manifest this	G3	
		G4: Wealth ranking and such other processes to decide community governance structures	G4	
		G5: Norms for functioning of such institutions and extent to which these are understood and followed by community	G5	
		G6: Evidence of acceptance of such norms by PRIs and other authorities	G6	
		G7: Evidence of processes that needed permissions are taken from concerned authorities	G7	
		G8: Evidence that processes are followed for handing over of assets created	G8	
		G9: Ownership and user rights for drainage line structures on various lands – public, forest, private etc.	G9	
		G10: Evidence of balance in technical, social and environmental processes	G10	
11	Influencing	IF1: Evidence of a formal influencing scope, its rationale and strategy at the project level	IF1	
		IF2: Evidence of accurate and validated knowledge of available surface and ground water, its end users, end uses	IF2	
		IF3: Evidence of processes that understand dynamism of its behavior and its qualitative and quantitative sensitivity with various land use, rainfall, permeability and such other applicable factors	IF3	
		IF4: Evidence of processes that make such knowledge available in a user friendly manner to the various stake holders and community groups	IF4	
		IF5: Evidence of the PRI and other such state institutions' involvement in facilitating a process that sensitizes various community groups to such knowledge exchange to arrive at a working consensus	IF5	

		IF6: Evidence of improving such processes to the maturity where trust among the various groups leads to rule based consensus	IF6	
		IF7: Evidence of efforts made to influence co-funding agencies on water agenda and progress/success achieved	IF7	
12	Synergy	S1: Evidence of an understanding of different government and community institutions and their roles	S1	
		S2: Evidence of supportive processes that help these roles to be furthered as also their sensitization on possible improvements that can be achieved by doing things through synergized action	S2	
13	Geography	GG1: Evidence of a process that understands the composite of scale (size) and complexity (topography, socio economic overlay on the topography, infrastructure for water use and its use pattern)	GG1	
		GG2: Evidence of a process by which contextual solutions are arrived for “water” related issues that need to be resolved based on this composite understanding	GG2	
		GG3: Evidence of a process that improves both the above by inducting disaster, climate and other such vulnerabilities into this composite understanding and therefore auctioning solutions	GG3	
14	Interest	INT1: Evidence of a process to map the diverse interests of various stakeholders in the project areas. Such an interest transcends end use and end user based interest to include roles as intermediaries – market players in water, researchers, academia, allied areas like commercial farmers, aggregator etc.	INT1	
		INT2: Associate this with other elements like governance, synergy, collectivization and influencing	INT2	
15	Making every drop (voice) count	MDC1: Evidence processes involving the Governments through which community platforms are created for sharing practices and learning	MDC1	
		MDC2: Evidence processes that map and develop a calibration of progress on all the democratization elements and improve this in collaboration with authorities	MDC2	
		MDC3: Evidence both supply and demand management processes in projects and demonstrate progressive water productivity	MDC3	
		MDC4: Develop processes to keep building a vocabulary on water friendly practices	MDC4	