Kutch Nav Nirman Abhiyan, Gujarat

A case study

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1.   Background

Kutch Nav Nirman Abhiyan (hereafter referred to as *Abhiyan*) was established post the 1998 Kandla cyclone, as a network of several organisations within the region of Kutch (Gujarat, India), to co-ordinate relief and rehabilitation efforts. With the infusion of aid and support from a variety of actors spanning state governments, international and national aid agencies, international, national and local NGOs etc there was a need to organise development actors in a manner most supportive to the local needs. Kutch being a region prone to natural disasters due to its location within seismic zone 5 which is the highest risk zone for earthquakes, and being a unique sensitive eco-system with the combination of the Rann and the coast, *Abhiyan*, as its name signifies, was an 'effort / attempt', that was the outcome of an important need for the region to reconstruct and re-create Kutch post any disaster situation.

An important period in the development of *Abhiyan* was when it was summoned to action post the 2001earthquake in the region which lead to vast devastation. One of the fundamental requirements for any intervention, it was realised, was the need for real time interventions and local data pertaining to the region. It was from this need that the idea of the '*Setu*' (bridge) programme evolved. The *Setu* was to be a decentralised space which would ensure the co-ordination of the local relief and rehabilitation effort and manage the task of creating the database of information which

could be used to intelligently galvanise resources for the region. 33 sub-centres were setup initially which have now dwindled to the 18 fully functional *Setu* centres.

By setting up the *Setus*, *Abhiyan* became a much more complex entity, moving beyond its identity as a network and set base as an organisation. Along with the *Setu* programme it has since undertaken several endeavours such as the *Hunnarshala*, for strengthening traditional wisdom and technology relating to building technology and innovations; *Khamir*, for promoting and revitalising local art, craft and heritage; Kutch Local Information Kendra (Klink) as an unit for developing systems to ensure the reach of information to the deprived through e-technology (Abhiyan website, 2011). In parallel, its 'network' identity has evolved in several ways even as more members have joined the initial collective.

For the purpose of understanding *Abhiyan's* technology initiative using the information and network society lens, we concentrate on studying certain aspects of the organisation. The case study begins by studying the network structure and role of *Abhiyan* followed by a detailed study of two specific technology enabled programmes – *Setu* and Klink. Each section begins with the history and evolution followed by the organisational structure woven with conversations from the field.

2.   *Abhiyan,* **the network**

Abhiyan, as of October 2011, is a network of 38 non-profit organisations registered as a trust. The organisations within the network represent an expanse of development work covering various domains such as education, women's empowerment, natural resource management etc., preserving their own unique identity yet working collectively when required through the platform of *Abhiyan*.

The stated objective of the network is 'to synergise human knowledge, physical and financial resources and to collaborate towards a Kutch which is governed by community initiatives, encourages self help development, especially with marginalised sections, integrates traditional wisdom with new technologies innovates and balances issues of human rights with human responsibilities' (*Abhiyan*, 2007). For its daily functioning and decision making, the member organisations of *Abhiyan* elect a Governing Body which has a term of three years. The network has a *chintan* (reflection) session once a year, where all organisations come together to converse on the issues of the region and set priorities and action plans for the period. Additionally, the General Body Meeting (GBM) is held once a year to share the outcomes and issues of *Abhiyan* with the larger network.

Abhiyan divides its functions into three roles. Within its institution building role it covers the four large directly implemented programmes, also referred to as resource institutes, of which two, *Hunnarshala* and *Khamir*, have matured and are independently registered. This, Manoj Solanki, the ICT Manager, says is the active philosophy employed by *Abhiyan* which believes in recognising a field need, building local capacities and nurturing leadership around it, allowing institutions to take on their own unique identity and become independent of the parent organisation. He mentioned that this principle of decentering was already in place for the *Setu* programme and that Klink too was to be independently registered shortly. These programmes of *Abhiyan* currently cover 380 villages.

The second role of *Abhiyan* is servicing within which they locate their finance management system, human resource support, training and capacity building of accountants and engineers, capacity building of rural youth, information management and documentation, organisational development service and fund liaison and management sections. The central office at Bhuj, also known as the Secretariat, has the main offices of its four independent programmes and other support functions. Here, servicing is for both- the organisational network and the local networks being created through the programmes of *Abhiyan*.

The third role of *Abhiyan* is collaborative and within this it broadly undertakes activities involving the entire network such as policy advocacy, relief, reconstruction and rehabilitation post disaster and the drought proofing programme. Currently, the network of Abhiyan covers a total of 450 villages.

Manoj and his team shared how disaster relief and rehabilitation were the issues around which organisations came together almost organically. Other than these large entire network driven initiatives, there were also smaller horizontal region specific or issue specific collaborations seen within the network. Some stated examples of such smaller collaborations were- the *pashumela* (animal market) organised in the Khawda block where *Sahjeevan*, a network partner, which has an expertise in animal husbandry was organising the event with the support of other partner organisations located in the region, including the *Setu*. As Kutch has, in the last few years, attracted a lot of industrialisation due to the Gujarat Government actively soliciting industry interest through various concessions and measures such as the creation of the Special Economic Zones (SEZs), the network has also been useful in bringing together organisations for the joint cause of political activism, advocacy and movement building.

Machimar Adhikar Sangharsh Sangthan (MASS) is an example of such an initiative. It is currently a state level body, now registered as a trade union, of the fisherfolk dwelling on the Gujarat coast.

The need to organise the fisherfolk emerged when post earthquake industries and ports were developed in the coast due to which the access to the beaches for the local fisherfolk was cut off. Although the land is not directly owned by the fisherfolk, their traditional livelihood and subsistence depends completely on their ability to stay near the coast for eight months of the year and accessing the ocean from there through their boats. There were also environmental concerns relating to the kind of projects being brought to the region and more importantly the lackadaisical manner in which industries functioned, showing no regard for the local people and resources, often exploiting both. The Bhadreshwar *Setu*, which functioned in one such coastal belt, began working with the fisherfolk through various initiatives and recognising the need for a collective effort on this issue, helped the fisherfolk organise themselves with the support of other member organisations such as *Kutch Mahila Vikas Sanghatan* (KMVS) and *Yusuf Maherali Centre* (YMC). 'This approach of building a collective and letting it function independently was taken', Manoj explained, 'because it is the belief of *Abhiyan* that citizen based groups can represent their issues better and have a greater impact'. This collective has since developed its own strategy, functional structure and networked with other similar fisherfolk groups across the country including the National Fisherfolk Federation (NFF). Other leaders from movements such as National Alliance of Peoples Movement (NAPM) have also shared strategies and trained the locals in methods of resistance ensuring that the group is now extremely capable and has undertaken advocacy which has had impact at several levels of governance. MASS also uses technology to reach out to global and national audiences, groups, networks etc. through methods such as blogging, online petitioning and networking through social networking websites such as Facebook to generate opinion and groundswell for their cause. Bharatbhai, who has previously worked with *Abhiyan* and is currently the Secretary of the MASS trade union, shared that several new contacts and collaborations were generated through the online space. Offers for legal advice, technical support etc. have poured in from different parts of the world. Internally, in *Abhiyan* too, it is mandatory for the employees to maintain and use a facebook identity along with using other online resources and media. Gannibhai and Aslam, employees at *Abhiyan*, both shared that it was used for both organisational and programmatic sharing and keeping abreast of news and use.

Similar issues of industry exploitation have also arisen in other blocks of the Kutch district, where industrialisation has lead to the illegal capturing of land, pollution, over exploitation of resources etc.. In these regions too, the village collectives created by the *Setu* through several of their programmes have come together and expressed dissent. Manoj and his team gave examples from the Anjar and Bhachau block where an association of *Panchayat* members has fought industries in their region through petitioning, *dharnas* (sit-in protest), rallies etc.

Manoj hence mentioned that there were several levels of network which *Abhiyan* was trying to simultaneously be, create, build capacities of and work with. One, was the original NGO network which *Abhiyan* identifies itself with, yet through its programmes it has also endeavoured to create new local community and citizen based networks to ensure that people represent their own issues and build criticality to assimilate and react collectively to the actions in their environment.

Manoj also clearly mentioned that although it was not possible for all NGO partners to come together on all issues, the network did strategically support specific initiatives, as and when required. For example, in the rally undertaken by MASS from Mundra to Bhuj, member organisations kept joining the rally as the collective passed the villages they worked with, in dissent of the model of development the coastal projects represented. *Abhiyan* also endeavours to partner with organisations outside of its network for bringing in specific expertise, as is the case of partnerships with resource institutes in their *Abhiyan* college initiative which attempts to create a cadre of local para-professionals in various sectors. For example People's Health and Development Trust supports the para health professional programme, Arid Communities and Technologies supports the para engineer programme and so on.

Manoj shared that *Abhiyan* also networks with other organisations on larger state level or national level issues. A recent example has been the discussion around the new guidelines for NGOs set by the Gujarat Government. *Abhiyan* has debated the issues in its internal network and also networked with other Gujarat based organisations on this issue to build opinion and take a collective decision.

3.   **Setu Programme**

Setu, is one of the sponsored, autonomously functioning programmes of *Abhiyan* which also arose from the need to co-ordinate disaster relief. During the initial phase of relief work, 33 sub-depots were formed covering 468 villages to support tasks such as need assessment of relief through surveys, relief distribution and management, collection of data on paraplegics and need of physiotherapy, facilitating the setting up of village committees for reconstruction, policy advocacy and facilitating construction of semi permanent shelters.

The number of *Setus* were reduced to 22, covering 404 villages, during the rehabilitation phase where it was involved in activities such as data collection of individual households, assessment of seismic safety features in the housing and infrastructure constructions followed by their monitoring, policy feedback regarding nature of settlements (in situ vs relocation), grievance redressal, undertaking anti-corruption campaigns, co-ordinating with 66 NGOs on various tasks, creating

support funds for vulnerable families and 'innovation / bridge' funds, identifying youth from *Setu* villages for non-masonry skill upgradation training in urban construction practices etc. It was also during this period that data collection began for the '*Setu* information management system' and thoughts were pooled to restructure the *Setu* programme to meet long term development needs.

Currently, in what is referred to as the developmental phase, 18 S*etus* cover 360 villages in five *talukas* (blocks) of Kutch. The location of the current *Setus* is determined by the initial response to the disaster i.e. they are located in regions most affected by the earthquake and later by the interest villages showed in continuing the programme. As the *Setus* have seen a change in their role and functions, it is being internally debated in Abhiyan to re-locate or establish new *Setus* as per local need.

At the centre the *Setu* programme has a Governing Board which provides it strategic direction. The Board is supported by Advisory Committees for specific sub-programmes run through the *Setu* which includes experts or support partner institutions or organisations. Within each block, there are approximately three to four *Setus* running, which work with about 18 to 20 surrounding villages. Each block has a co-ordinator and each *Setu* has approximately four posts which include the team leader, two programme co-ordinators and one kiosk operator. At the local level too, the *Setu* has a *walimandal* (governing board) which includes village members, *Abhiyan* experts and staff who determines the specific areas of intervention for the region. *Setu's* interventions are also determined by the base-line data which has been maintained from when they were established.

The *Setu's* within this new role have set themselves the following mandate:

1. Supporting and strengthening Gram Panchayats within the clusters to improve governance
2. Developing cluster of villages served by *Setu* as a decentralised planning unit
3. Organising marginalised groups within traditional livelihoods
4. Using and developing information technology to institute a e-self governance system
5. Creating a cadre of rural professionals to empower the Gram Panchayats

(a)   Strengthening Panchayats, decentralised planning and improving governance

The focus on Panchayats was brought because through the initial experience of the *Setu* programme it was realised that there was strategic sense in approaching development issues through them. As a constitutionally elected body the Panchayat had authority by law and had to abide by the peoples mandate, an intervention with them could have a holistic impact on the villages. Also *Setus,* Manoj shared, had experienced the transformative value of information and hence their approach was

coloured by these two lessons. The *Setus* undertook various kinds of training for the members covering their rights, duties, responsibilities along with teaching them how to use tools such as the right to information law to access information.

A very specific technology intervention aimed at helping panchayat members take responsibility and engage with several issues of governance locally, was the Local Governance Support System (LGSS) built in collaboration with *Abhiyan's* other programme Klink. It was interwoven with its other initiatives with the panchayats like organising and creating associations along with supporting them with trainings.

The LGSS supported two aims of the *Setu* programme- strengthening the panchayat capacities and pushing for decentralised planning. For decentralisation of planning, *Setu's* had organised a process of using the Village Development Fund (VDF), created at the Secretariat level, for accessing which each panchayat would have to create a plan for investment and then apply for the funds appropriately. The technology wing of LGSS involved the GIS mapping of the villages along with data collection at the household and village level undertaken by the *Abhiyan* trained staff and the panchayat members. This information was then centrally consolidated at the Klink and a user friendly online interface which allowed for data manipulation and pictorial representation of data, was created for use by the Panchayat members. The training also included learning to use Skype and Facebook.

At the focus group discussion in Dudhai and Samakhyali, this approach of *Setu* was validated by several *panchayat* members. Mayaben, Sarpanch of Kotada village, referring to the LGSS site said that "previously for any information we would have to go from house to house or to the government offices, but now its all easily available in one place". *Setu* has facilitated the formation of women *mandals* (groups) in this region and both Mayaben and Hasinaben (members of panchayat) were a part of them. Hasinaben confessed that she stood in elections due to the reservation for women introduced by law, her family made her stand against her desire, but after joining the *mandal* in the region, she has learnt and gained a lot of information and has decided to contest the next elections too. Kalpanaben, panchayat member at Samakhyali, also shared a similar experience. Both panchayat women members shared that the facilitation by *Setu* has been useful as previously they would hardly participate and would sign any document handed to them by their husbands. This has now changed, with them actively involving themselves in the working of the panchayat and also ensuring that women participate in the gram sabha. Mayaben also shared that post computer training that she took from the Setu, she uses Google search to look for information related to the zilla or gram panchayat. Skype and Facebook, she confessed, were not used as regularly as they

required one to own a computer. "As everyone does not have one, and the e-gram computer does not allow access to social networking sites, access to computers is an issue to engage with such social networking tools".

At Samakhyali, Gannibhai explained that the Khabrau panchayat in the region was known as a model *panchayat* due to its excellent use of its training. The *Sarpanch* (headman) Damjibhai, he shared, was an inspired man who had even formed the social justice committee in the village, something no other village had done till then and begun dealing with issues of caste such as ensuring that the village temple can be entered by all. The *panchayat* has also actively used the LGSS website to garner resources for the village from various sources like the VDF and the district office. They have used it to study issues they need to work at, schemes that need to be accessed etc. and access these site either through the *Setu*, or through the netbooks lent out by the *Setu* or through the computer at the *panchayat* office where their plans are saved.

It was also strongly felt that local competencies and decentralised planning would further the self-sustainability of the villages. Hence it was decided that there was a need to build a rural para-professional cadre within sectors of health, engineering, veterinary, legal and educational services. *Setus* have additionally been instrumental in supporting specific decentralised interventions relating to watershed management, education etc. as per requirements.

(b)   Working with marginalised communities

As *Abhiyan* has a clear mandate of working with marginalised groups, in each of the regions the *Setu's* functioned, the marginalised groups with traditional livelihoods were identified and targeted for interventions. Due to this approach, each *Setu* is unique in terms of the specialised nature of work it might undertake, for example it works with communities who are traditionally involved in cattle breeding in the north of the district, fisherfolk in the south, saltpan workers in the east and other groups such as dry land farmers and craft artisans.

With each of these groups, the *Setu* has worked on issues relating to accessing rights, services and information and support for forwarding their livelihoods. As Gannibhai, the cluster co-ordinator of Bhadreshwar Setu mentioned, for the fisherfolk the process of accessing creek passes, identification etc. was very difficult and complicated and would often involve a middle man who charged them a hefty sum. The *Setu*, by co-ordinating with various government agencies has now simplified the process and even shared databases of the fisherfolk in the region with the government in order to ensure their safety of passage in the ocean.

For the salt pan workers of Adesar in the Little Rann of Kutch, the S*etu* is again playing the role of an informational facilitator and mobiliser by helping *agarias* access their rights. Bharat, coordinator at the Adesar S*etu* says that one of the biggest challenges the *agarias* are facing is in marketing the product as the market is controlled by the mafia. Meeting quality standards and accessing minimum basic facilities are some of the other issues the S*etu* has taken up on behalf of the workers. Labhubhai, one of the *agarias* states, "We are entitled to boots and sunglasses and yet we have had to fight for even these rights. With the help of the S*etu*, we have finally won that battle. Now, my death will be more peaceful, knowing my feet will also burn on the funeral pyre." Working barefoot, without boots or gloves, the salt content in the *agarias* hands and feet is so high that it is difficult to burn at the cremation, an ignoble fate for many and one of the occupational dangers the S*etu* has helped workers fight against. The S*etu* has also facilitated a collaboration with the Central Salt and Marine Chemicals Research Institute to conduct training programmes for the *agarias* and provide quality support. In addition, they have tied up with the TATAs to provide inputs on marketing the product and meeting quality standards.

Similarily, in Bhachau block, where 84% of the farmers were dry land farmers, the Sustainable Agriculture Development Action (SADA) was initiated. Collectives of farmers were fostered and once these were established, work was undertaken on issues such as market linkages, quality seed management, credit facilitation, crop protection, cultivation practices. Two organisations in the region SATVIK and Agrocel have supported this initiative.

With the advent of mobile phones and high penetration in the region, where even women often have a handset and SIM of their own, the information centres maintain a data-bank of mobile phone numbers, specifically of certain groups such as *panchayat* members, livelihood based groups such as farmers and fisherfolk etc. or disseminate health based information to women's groups. To such groups about four times in a month atleast, information on various relevant issues, news, prices etc. is SMSed through a internet based client by the operator.

(c)   Mahiti Mitra

A critical intervention which forwards *Abhiyan's* emphasis on information as an important tool for empowerment, has been the *Mahiti Mitra* (Information friend) which has been developed to meet the mandate of 'using and developing information technology to institute a e-self governance system'. The *Mahiti Mitra* (MM) sub-programme of the *Setu* began in 2005 and was supported by the UNDP and Department of Information Technology and co-ordinated by the nodal agency-National Institute of Smart Governance (NISG). It is a decentralised rural kiosk setup to meet the

informational and service needs of the villagers and address the 'last mile' problem[1]. In the group discussions several villagers admitted that prior to the MM they would often be completely uninformed of the schemes and facilities that the government had created for them. Zeenatben and Vaijuben, both of them young widows, mentioned that they had accessed the widow pensions scheme through the MM. Nagalben, Bhawanaben and Unjiben at the Samikhyali MM discussion mentioned that they were able to access the livelihood scheme for receiving sewing machines through the MM. Bikhabhai mentioned he accessed schemes for the paraplegic through the MM.

The objective behind setting up the MMs were:

1. Enhancing the efficiency and transparency of local self-governance.

2. Enable informed decision-making in local self-governance and development through better understanding of their rights and responsibilities.

3. Provide digital networking and facilitate two way communication between remote areas, Panchayati Raj Institutions (PRIs) and Zilla Panchayat (ZP).

4. Develop capabilities for better development planning.

5. Build capacities of local communities to become meaningful partners in e- self governance initiatives.

Abhiyan used the services of its other autonomous programme Klink, to support the technical requirements of MM. It established a post of the District Liaising Officer, at the district administration office by mutual agreement. The officer was sent the queries and grievances received by the MMs and s/he would accordingly follow it up with the respective departments. Also, the officer would collect information from 30 departments of the government, which was digitised and made available for distribution through the MMs. The *Setus* role was to mobilise the community, conduct the needs assessment, study the kind of IT applications required and monitor the impact of the initiative.

The MM space has been clearly separated with the *Setu* space as *Abhiyan* makes a clear distinction between the role of the two centres. While *Setu* plays the role of a constant facilitator, the MMs are purely for service and information provisioning. Keeping this in mind, the locations of the MMs can sometimes vary from the *Setu* and be more viably located in accessible spaces such as market spaces, bus stops etc. In many cases the location has been debated by villagers and decided by them. There are some MMs which have even been provided space by the *Panchayats* to work from their

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[1] It has often been noted that informational services stop at the district level and often do not make it to the villages.

office space free of charge, bringing a sense of ownership at the local level. Yet, it was noted that certain groups such as women and the elderly hesitated in visiting the centres. A study of their centres usage data showed that centres with female operators attracted more female users, Manoj mentioned. Conversation with one such female operator of the Bhadreshwar MM, Kanchan, brought out that women in certain clans such as the Darbari's were not allowed to step outside their houses. The MM had to pro-actively reach out by visiting them, going to their doorsteps and informing them about the information available. The fact that Kanchan herself is a Darbari woman, has helped several women come out and feel more comfortable about seeking information. This has been a lesson learnt by MM and measures to ensure that different groups can access MM, are being taken by *Abhiyan* through their monthly meetings and discussions.

The MM space is also utilised for other technology interventions such as the tele-services (VRC) in five MMs, provided through ISRO where partner organisations such as Apollo Hospital, Klink, SAC (Ahmedabad), Anand Krushi University, provide information and resolve queries of the villagers. MMs have organised several lecture series on various topics from tele-medicine to environment related information and given people time to interact on these issues with the experts. Zeenatben, who is an ASHA worker, shared that she had attended the tele-medicine lecture by the Apollo doctors and found it very useful. Other users also mentioned having attended these sessions.

A phase two of the MM programme has envisaged the strengthening of the existing centres, collaboration with other NGOs and spread of the concept (this has already taken place with three organisations in Kutch), supporting government infrastructure and programmes such as the Common Service Centres and E-gram initiatives by ensuring that a cadre of IT professionals who can handle such software and manage these cells, is available locally. Several new services have also been added in the centre such as – a child friendly software which covers the curriculum till class 7th is available in the kiosks. The MMs also run basic computer classes for children in the evenings. Other partnerships have been developed such as with INCOIS which has installed ocean information electronic display boards in the coastal region which provides information regarding availability of catch, weather, tsunami tracking etc. in the regional language. Collaborations have also been undertaken with ISRO to develop Village Resource Centres (VRCs) and with Azim Premji Foundation for multimedia content, among several others.

Abhiyan, Manoj shared, has learnt that having a decentralised space like the MM where technology is simplified for local use and is managed by the locals, can have an enormous impact. The importance of having a trusted neutral space where villagers could meet was also emphasised by many as being very useful. Since the setting up of the MMs, the space of the centre has been used

for meetings of the collectives, having training sessions, information dissemination etc.. The *Abhiyan* teams shared that even the government officials now often used the MM to share new schemes with the villagers, interact with them on various issues, and when the Gujarat government made it mandatory for village officials to have basic computer skills, several of them even came to the centres for training- slowly making the MM a nodal point of interaction for the region.

4.   Klink programme

Klink as a programme, like in the case of *Setu*, arose from the need to organise the data for relief and rehabilitation. After the *Setus* were setup and began sending in local data to the central office, there was a need to process the large amounts of data in a manner that was quick and useful to decision making. Initially, as *Abhiyan* did not have the competencies to create such software, UNDP with the support of TCS opened a small cell to create an MIS system and manage the data.

Abhiyan's experience with TCS was not satisfactory. The MIS created was found to be not adequately useful and there were several issues with the data collection process. There was a gap in the understanding of the local context. As Manoj mentioned, "the rural population isn't able to easily articulate its technology need, it needs to be teased out and understood". It was felt that there was a need to have sensitised software developers who understood the development sector and engaged with the local context to develop very specific people friendly software applications. It was due to this that Klink was created and a process initiated to bring in engineers and sensitise them to the sector and local issues. The current objectives of Klink are:

1. To provide a live platform to bring the power of ICTs in rural development and integrate ICTs with rural development and empowerment.

2. Bridge the technology gaps between corporate "haves" and non-profit organisations "have-nots".

3. Enable organisations to grasp the potential of ICT as a tool for development by demonstrating.

The services provided by Klink are software development, GIS mapping, computer networking, website development, research, maintainance, data punching and mobile based information provisioning. Its team is largely composed of software developers who have undergone training with *Abhiyan* to engage with development needs of the rural population. The services of Klink are not limited to use by the *Setus* , Klink now provides its services to a wide variety of clients and like

the other autonomous programmes of *Abhiyan*, is expected to be registered shortly and function independently. As each of its project are undertaken at a reasonable cost, Klink has been financially independent for the last few years.

From the beginning, Klink has served the entire network, though its initial competencies have developed due to the *Setu* project. Its first task had been to create the Setu Information Management System (SIMS) to replace the TCS based system they has inherited. Post that Klink has created several internal systems to make organisational management easier. One of the other important tasks undertaken was the setting up of the *Yojanakiya Darshan* used to process the information relating to the MMs. Some of the recurring activities of Klink though are- maintainance of organisation equipment, data management / entry, management of internet access and mobile based information dissemination. For the mobile based dissemination, an online platform SMS Live has been created, through which the MM operators send the mass messages. Klink also, independently created a mobile based service to locate people with similar blood groups in emergency situations.

One of the recent major programme based projects has been the setting up of the LGSS website. Manoj shared that the initial software solutions had to be stand alone because of a lack of internet connectivity, but now increasingly they are making a shift to online solutions with increased connectivity. The LGSS demonstrates the use of a specific design of intervention to meet a given purpose. Realising the limited ability to negotiate online and use language commands, LGSS has been made as user friendly as possible (with a local language interface) and the GIS mapping process has ensured that the data is represented in a pictorial form, easy for the panchayat members to understand and use.

For the development of the LGSS, the Klink team decided to try and completely rely on using open source tools. Manoj confessed that this became an uphill task, as competencies required for such an endeavour are very limited and they had to struggle through long periods of experimentation to overcome several hurdles. "*Abhiyan*, in principle agrees with the open source movement", Manoj said, "but there are several internal issues due to which the organisational switch has not been made". This includes the issue that the initial software developed by Klink has a proprietary software base implying that a systemic shift to open source operating systems, makes them unusable. Systems in the *Setus* and MMs have been provided with both open source and proprietary OSs but due to such issues, the proprietary OS is used more. Manoj also shared that the developers themselves hesitated in using only open source because in the larger market, these competencies are not valued as much.

At the network level, the team shared, there were still organisations which do not possess computers or the people skilled to handle technology. Klink hence becomes a useful resource to all organisations within the network. For example, currently Klink is involved in creating an Management Information System (MIS) for KMVS and Shroff Foundation and an Integrated Workplace Management System for the District Watershed Development Unit. It has also undertaken large network based software solutions such as in the case of the drought proofing endeavour in collaboration with 14 organisations.

While some of the services provided by Klink have developed due to the needs articulated by the network, others have been pro-actively introduced by Klink due to their possible usefulness in the development sector. These new technology ideas are shared with the larger network through many ways- either Klink is approached with a specific problem, or Klink shares a particular useful solution or sharing in GBMs or other platforms allows the needs and solutions to come together. Since the last two years, Klink has also taken projects outside its network and helped support organisations outside Gujarat such as in the case of developing Decision Support Systems (DSS) created for Oxfam, Disaster Risk Reduction Programme for Concern India etc..