

NEERJAAL – A CASE STUDY

Part I - Overview	
1 Name of the Project/Product Nominated (in English)*:	NEERJAAL
2 Name of the Project/Product in Original Language:	NEERJAAL
3 Language(s) of the Product*:	English, Hindi and Marathi (Underway)
4 URL (If Online):	http://www.neerjaal.org
5 Links to Online Resources*:	http://www.neerjaal.org
6 Category* [CHOOSE ONE] I. e-Business & Enterprise II. Community Broadcasting III. e-Culture & Heritage IV. e-Education & Learning V. e-Agriculture & Livelihood VI. e-Environment VII. e-Governance VIII. e-Health IX. e-Inclusion X. e-Infrastructure XI. e-localisation XII. e-News & Media XIII. e-Entertainment XIV. e-Travel & Tourism XV. e-Science	e-Environment
7 Project Definition of the application/service/innovation*: (Not more than 200 Words)	<p>At Core, Neerjaal is a web based application for collecting, organizing, analyzing and reporting data related to drinking water and sanitation across India. In doing so, Neerjaal team conducted various workshops (including training of Neerjaal Application) in various districts of Rajasthan, Uttar Pradesh and Madhya Pradesh in different phases.</p> <p>Neerjaal is a unified and comprehensive data center of water information of India which is accumulated by local population. Neerjaal is also focused on spreading awareness about health and environment related issues when it comes to drinking water and sanitation throughout the Country. The application of Neerjaal gives access to the information on water table and quality status to the concerned People in their locality. Neerjaal is also taking up the local water table issues to respective authorities to improve the ground situation and if needed demand for requisite intervention.</p>
Part II - Technical Details	
8 Technical description of product/ services / platform (Not more than 200 words)* <ul style="list-style-type: none"> • Technology (Hardware, Software, Platform) • Feature List • Hosting (Details and explanation on how it is fast, scalable, reliable and secure?) • Integration mechanism 	<p>The project is hosted on the Windows 2008 Server Platform on IBM Machine, IIS 7.0. Framework – Microsoft.NET 3.5 SP1 Language – C# Server Script – ASP.NET Database Server – SQL Server 2005 Client Script – JavaScript, HTML 5.0, CSS, Flash</p> <p>Features include:</p> <ul style="list-style-type: none"> ■ Multiple Reports (like Water Quality, Harvesting Level, Demand Supply Shortfall, Impurity Indicator Chart, Local Water Body

<p>(with different mobile phones)</p> <ul style="list-style-type: none"> • Edition & Pricing (Editions tailored for the demanding needs of small to large size businesses from different industries) • Coverage area • Value added services, if any • Service & Support (In terms of software, or hardware, if applicable) 	<p>Statistics etc.)</p> <ul style="list-style-type: none"> ■ Easy to use CMS ■ Live and Real data from the ground collected by local People <p>Brows able on Smart phones. Android application are underway. Coverage Area – 400 villages from the states of Rajasthan, Uttar Pradesh , Madhya Pradesh and Maharastra.</p> <p>Value Added Services – Grievance Redressal Assistive Services, Photo Essay, Community Participation Invitation Service, Hosting of Workshops on demand.</p>
<p>9 Installation procedure/Technical Requirements of the product/project for testing by Jury*:</p>	<p>There is no installation required for testing. The test user account is: xxx and the password for test is yyy. The web application is running on http://www.neerjaal.org and the CMS can be accessed by clicking LOGIN from the HOME Page.</p>
<p>Part III - Product/Project Data & Details</p>	
<p>10 Chronology*</p> <p>10.1 Date When Project Conceived:</p> <p>10.2 Launch Date of the Project:</p> <p>10.3 Project Completion Date:</p> <p>10.4 Other Important dates & events during the journey responsible for present state of the product/project:</p>	<p>This Project was conceived in the year of 2008 and launched in January 2009. The project was funded and supported by Department of Science & Technology (Govt. of India). In this period, we officially collected data from 20 villages.</p> <p>In the year 2010-2011, Neerjaal application was supported by more states and scaled up its operation resulting into adding 400 more villages. We collected data from all those villages consistently by the participation of local People.</p> <p>In 2012, we expect to add more than 200 more villages.</p>
<p>11 Who are currently using your service or product*?</p>	<p>Currently our services, technology and products are used by various NGOs and more than 400 village communities of India and constantly enriching the Neerjaal Data Center.</p>
<p>12 What do you deliver (Content/Services) to your customer/target group through your initiative?*</p>	<p>We deliver raw water data content for educational and research process. These data are used in generating and delivering various reports as a service. In that sense, we deliver content and services both.</p> <p>The beneficiaries and the target groups are:</p> <ul style="list-style-type: none"> • The community is the prime beneficiary. The support of the community is critical in getting all vital water related information and data and their timely updation; • The government is an important beneficiary consisting of Ministry of Water Resources, National water agencies, irrigation departments, agriculture and weather ministries; • The Private beneficiary includes national and international development organizations, local level development NGOs, research agencies and academic institutions; • NeerJaal is useful for anyone who wants to provide any water resource information i.e. problem wise as well as for those who wants to analyze that information available.
<p>13 Describe the commercial model.* (Not more than 200 words)</p>	<p>The commercial model is not in place as the project is available free of cost. The focus of the project right now is to spread the network of Neerjaal across all states of India.</p> <p>We aspire to test the project in various diverse geographical regions and create awareness among rural and semi-urban population.</p> <p>The commercial model that we are considering is the distributed licensing model where license will be distributed for various districts of a state. The status of the development is on-going.</p>

<p>14 Detailed Description of the application / service/ innovation*: (Not more than 1000 words)</p>	
<p>15 Specify your implementations till date & also impact in detail? * (Not more than 200 words)</p>	<p>Till date, Neerjaal is capturing water quality data from more than 400 villages by participatory methods.</p> <p>The impact of the Neerjaal are:</p> <ul style="list-style-type: none"> • Ready availability of water resource related usable information leading to concerted and planned action at local and broader levels towards increasing water availability and sanitation • Participation and ownership of local populace into water resource management initiative • Partnership of private players into drinking water and sanitation initiatives • More and more information related to health issues concerning water quality will be accessible to public domain, causing greater public role in maintaining water quality • More understanding and ownership of their health and hygiene by the local People. Now, they themselves are involved in managing their ecology. • Ultimately, increased access to drinking water and sanitation infrastructure for grassroots populace
<p>16 What was the background behind developing the application/service/innovation? (Not more than 200 Words)</p>	<p>Now days, no one can afford to lose on good water quality. In India, there are very few states where water table is adequate and water quality is good. Excessive Industrialization and bad environmental management added to the problem. Deforestation is also draining the water table and leading to lesser rain fall. In the given scenario, prima facie, we, the People need to take all possible steps to sustain the water table and quality. Good water harvesting technique, farming techniques and rain water harvesting is very important mechanism that need be understood and advocated in order to create healthy water balance.</p> <p>NEERJAAL IS A SMALL EFFORT IN THAT DIRECTION AND IT HAS A LONG WAY TO GO.</p>
<p>17 Best ways to use or the best usage scenarios of the product/project*: (Not more than 500 Words)</p>	
<p>18 How does your application/ service/ innovation provide interactivity and ease of use to the users? (Not more than 200 words)</p>	
<p>19 Provide some user experience on how your project has impacted user life*?</p>	

<p>20 How is your project unique?</p>	<p>Neerjaal has no comparable model in India till date. This is a unique project in terms of capacity building, participation and drilling down to the lowest strata of the society.</p> <p>Neerjaal collects data from the localities, which is under the ambit of villages. Villages form block. Blocks form districts and districts form states.</p> <p>In India, we have census code for the villages at the micro level, but Neerjaal even go below that level to the locality level and generates report to that level as well.</p> <p>All data that are aggregated is collected, tested and uploaded by the locally trained People. This makes the system self sustainable.</p>
<p>21 Competition / Peers: List competing service(s) available to target user base offering similar value. (Not more than 200 words)</p>	<p>Neerjaal is the only system that capture data from remote localities and allow people to participate in the process of making their ecology clean. So far, we have not come across any web application in India, which deals with live water data collected (sampled), tested and uploaded by villagers themselves.</p> <p>In that sense, till now, we do not see any competition.</p>
<p>22 Is your project sustainable on its own? How scalable is it? Please explain if there are any limitations. * (Not more than 200 words)</p>	<p>Right now, the project is running in various states like Rajasthan, Uttar Pradesh, Madhya Pradesh and Maharashtra. The project covers 400 or more villages. Since, the local villagers are responsible for updating data, we as an empowering partner to people provide them with the technology assistance and motivation. The respective data sample collection, testing and uploading of data on the server is done by the local People.</p> <p>Till now, participation of People is commendable. In terms of financial sustainability, we still require funding to support the upgrade of system and technologies.</p> <p>In terms of technical sustainability, we have a robust system capable of handling billions of records of data from the lowest levels of villages. The system is based on SQL server database and is scalable enough to support more villages. Since inception, the system was designed for a distributed transaction model, giving us leverage to scale it up in future. But, all said, scaling up requires some funding.</p> <p>In terms of participation sustainability, we are able to convince and mobilize people to be part of our goal and movement.</p>
<p>23 Would you like to share about other initiatives, products, projects and implementations that reflect your larger contribution towards using innovation for empowering rural masses?</p>	<p>N/A</p>
<p>24 What is the Roadmap of your Project? Also share your long-term vision. (Not more than 500 words)</p>	<p>At Core, Neerjaal is a web based application for collecting, organizing, analyzing and reporting data related to drinking water and sanitation across India. The process was initiated in 2009 and now it is conducted and maintained by Digital Empowerment Foundation in partnership with Barefoot College, Tilonia. In the initial phase, the focus was on collecting and aggregating data about the drinking water quality (related to physical and chemical impurities). In doing so, Neerjaal team conducted various workshops (including training of Neerjaal Application) in various districts of Rajasthan, Uttar Pradesh and Madhya Pradesh in different phases.</p> <p>The broader vision of Neerjaal is to create a comprehensive data center of water information of India. Our broader vision is also focused on spreading awareness about health and environment related issues when it comes to drinking water and sanitation throughout the Country. The</p>

application of Neerjaal gives access to the information on water table and quality status to the concerned People in their locality. Neerjaal is also taking up the local water table issues to respective authorities to improve the ground situation and if needed demand for requisite intervention.

To improve the effectiveness of the project, we are starting to have GIS integration on the web site to reach the desired location and view the drinking water and sanitation status. We will be using Google Map GIS and census codes to reach the geographic locations. Neerjaal will have mobile applications to assist locals in collecting and reporting. This will mitigate some existing hindrances like electricity, availability of computers and broadband issues.

Part IV - Producer (Individual/Organization) information

25 Name of Organization (Nominees)*	DIGITAL EMPOWERMENT FOUNDATION
26 Contact Person*	OSAMA MANZAR & NEERAJ KUMAR SINGH
27 Street Address*	44, IIIRD FLOOR, KAALU SARAI
28 City*	NEW DELHI
29 Post Code*	110016
30 State*	DELHI
31 Country*	INDIA
32 Mobile, Telephone, Fax*	011-26532786/87
33 Email(s)*	info@defindia.net
34 URL/Website	http://www.defindia.net

35 Heads, Team Members, Investors, Clients, Partners & Vendors who have significantly contributed*

S.No.	Name	Role [Heads/Team Member/ Client/ Vendor / Investor]	Email	Phone/Mobile	Location
1.	OSAMA MANZAR	Conceptualization & Execution	osamam@gmail.com	9810042862	New Delhi
2.	NEERAJ KUMAR SINGH	Project Manager (IT Implementation)	neeraj@defindia.net	9910063766	New delhi
3.					
4.					
5.					