DHARITREE MANAGING LAND RECORDS SUCCESSFULLY SONITPUR DISTRICT, ASSAM

LOCATION OF DHARITREE – DISTRICT SONITPUR, ASSAM

Source: http://lrc.assam.nic.in/
DHARITREE is a special Information Communication Technology endeavor for total Land Records Computerization by the Sonitpur district administration in association with National Informatics Centre (NIC), Assam under the sponsorship of the Department of Information Technology (DIT) Government of India. The project started as a pilot with a financial assistance of Rs 84.00 lakhs. National Informatics Centre (N.I.C), Assam provided the Technical expertise for the implementation of the Project including developing the software christened as DHARITREE.

Source: NIC, Sonitpur District

About Sonitpur District
Sonitpur district in Assam is spread over an area of 5324 sq. kms on the north bank of the Brahmaputra river. In terms of area Sonitpur is the second largest district of Assam after Karbi Anglong district. The population of Sonitpur district is 16,77,874 as per 2001 Census. In terms of population it ranks third in Assam after Kamrup and Nagaon districts.

Sonitpur is bounded on all sides from North-South and East-West

<table>
<thead>
<tr>
<th>North</th>
<th>The state of Arunachal Pradesh</th>
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</thead>
<tbody>
<tr>
<td>South</td>
<td>Morigaon, Nagaon, Jorhat and Golaghat districts</td>
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<tr>
<td>East</td>
<td>Lakhimpur District</td>
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<tr>
<td>West</td>
<td>Darrang District. (Pachnai river serves as the boundary)</td>
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</tbody>
</table>

The District lies between 26° 30’N and 27° 01’N latitude and between 92° 16’E and 93° 43’E longitude.

Located between mighty Brahmaputra River and Himalayan foothills of Arunachal Pradesh, the district is largely plain with some hills.

Brahmaputra River forms the south boundary of the district. A number of rivers which originate in the Himalayan foothills flow southwards and ultimately fall in Brahmaputra River.

There are number of River Island in Brahmaputra River, known as Chars in local parlance. Water bodies are in abundance in the District. There are lakes and
ponds dotting every part of the District. The major lakes are- Rowmari, Dighali, Borsola, Rongapani and Dhandi.

The central and southern portion of the main plain is dotted with hills and hillocks, especially near the Brahmaputra river. Important hills include the Agnigah and the Bhomuraguri. The region has trees and tea-plantations and paddy fields.

The northern portion is made up of Forest Reserves and sparsely populated forest-villages. The region abounds in bio-diversity with evergreen and deciduous trees of several types. There is a National Park (Nameri), a few Wildlife sanctuaries (Sonai-Rupai & Bor-Dikoral), and a number of reserve forests (e.g. Chariduar, Balipara reserve-forest). In the extreme north of the region (Bhalukpung, Sijushah, Pabhoi, etc.), are hills and hillocks marking the starting of the Himalayan foothills.

Sonitpur District falls in the Sub-Tropical climatic region, and enjoys Monsoon type of climate. Summers are hot and humid, with an average temperature of 29° C. Autumns are dry, and warm. It gets cooler as the months progress. Winters extend from the month of October to February, and are cold and generally dry, with an average temperature of 16° C.

POPULATION DATA

According to the 2001 Census, the Sonitpur District has a population of 16,77,874, with a density of 315 persons per sq. km. The people here are not a homogeneous lot. Rather, they are a mosaic of ethnic groups, an admixture of diverse types of people.

Gender (2001 Census)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
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<tbody>
<tr>
<td>Males</td>
<td>8,64,125</td>
</tr>
<tr>
<td>Females</td>
<td>8,13,749</td>
</tr>
<tr>
<td>Total</td>
<td>16,77,874</td>
</tr>
<tr>
<td>Sex-Ratio</td>
<td>942</td>
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</tbody>
</table>

Literacy (2001 Census)
Majority of the people have Assamese language as their mother tongue; and the others also use it, as a lingua franca. Other languages spoken are Bodo, Nepali, Bengali and Hindi.

DEMOGRAPHIC PATTERN
The major communities inhabiting the District are:

The Assamese
The majority people inhabiting the District are Assamese. They are among the original inhabitants of the place, and the typical culture of the place grew with them. While a majority of them follow Hindu religion, a significant portion of them are also Muslims. The district has a considerable Muslim population. Majority of Muslims have emigrated from erstwhile East Bengal (present Bangladesh). They fill up a large portion of riverine areas of the district. A few of them are also adherents of Sikhism, Christianity, and Buddhism. Caste- Prominent castes among the Assamese include Brahmins, Kalitas, Baishya, Koch, Ahoms, Yogis, the Scheduled Castes, et al. The Nepali community is fairly dominant in the central and southern part of the District, especially in the Biswanath Chariali and Gohpur sub-divisions. The Bengali community came from erstwhile undivided Bengal, as officials and clerks of the British administration and the Tea Industry; and stayed back. Later, on account of the partition of India, people coming as refugees added significantly to the community. The Adivasi people were brought by the British from Chotanagpur area and Orissa to serve as labourers in the Tea Gardens. In course of time, they assimilated themselves in the greater Assamese society, while retaining their basic cultural traits. The Jhumur dance is their contribution to the culture of Assam. Tribes

Mishings
The Mishing people live in a scattered manner in the northern part of the Naduar and Biswanath Circles, i.e. east of the Bhorali River; and form a significant portion of the population of Gohpur sub-division.

The Bodos
The Bodo dominated areas include the northern part of Dhekiajuli, Chariduar, Naduar, Helem and Gohpur (Sadar) Circles. They have their own distinct culture, but many of them have also adopted Assamese ways.

Other Tribes
Other major tribes of the District include the Rabhas, Mechs, Nyishis, Garos, Adis, Apatanis, Lamas etc. Their population is sparse, and mainly confined to the foothills of the Himalayas near Arunachal Pradesh. They speak either their tribal language, or their variant of Assamese. Of course, they use Assamese as a lingua franca.

ECONOMY

Sonitpur is basically an agrarian economy. Approximately 80-85 percent of the population depends on agriculture allied (primary sector) activities for their livelihood. Rain fed cultivation of single paddy crop still continues in most areas of the district. The economy of the district is Agriculture based the traditional one; no multinationals or software industries, no big brands, no TATA, INFOSYS, RELIANCE, no big business dealings as such. The economy of Sonitpur is underdeveloped and has its own pace, trend, tradition and development process. Sonitpur is trade center for Bomdilla, Tawang, Seppa and Itanagar of Arunachal Pradesh. Tezpur, Dhekiajuli, Rangapara, Biswanath Chariali and Gohpur are important trading centers in the district. The next most important feature of the economy of Sonitpur is the existence of large number of tea gardens. There are all together seventy three tea gardens in Sonitpur district.

The Traditional Economy Trend:
In the district traditional economy provides a big source of income to the people for their livelihood. People rich in traditional activities like and prefer their traditional job. In the district fishery is quite popular commercial activity but it is also not developed to the desired level. River Brhmaputra and about 1000 number of ponds provide huge scope of fish production. Handloom weaving is an important cottage industry that has been flourishing in Assam from ancient times. Muga Mekhala and Riha, decorated blouse piece, Eri chadar etc. are of some of the best specimen of handloom products.

Sericulture is the most important cottage industry not only of the district but also of the state of Assam. Gold and Silver Smithy industry is very traditional one. The industry is mainly concentration in the urban areas.

Small Scale Industries (Modern type):
In Sonitpur a lot of small scale industries are established that engage a huge employment and make good attribute to the economy. The district is rich in forest
resources and offers ample opportunity for the development of the timber industry like saw mills, plywood factories and manufacture of furniture fixtures.

How would one reach the location?

To reach Sonitpur District, the best starting point is Tezpur, the District Head Quarter. Tezpur in Assam is situated on the banks of river Brahmaputra, in Sonitpur district. Tezpur is just 180 km from Guwahati, the commercial capital of Assam. As Guwahati is well connected to all of India, Tezpur can be reached very easily from any part of India. There are numerous interesting destinations in & around Tezpur, which fascinates every traveler to Assam in North East India. Tezpur is connected by air, rail and bus. Indian airlines NEPC airlines connect Tezpur with Calcutta & Guwahati. The road transport is equally available. Deluxe bus services (both day & night) are available from Guwahati and other important towns. Govt. & Private Bus Services are plying between the city and Kaziranga (1:30hr), Jorhat (4hr), Sibsagar (5:5hr), Guwahati (4:30hr), Itanagar (5hr), Bamdila (6hr), Tawang (14 hr), Siliguri.

WHY DHARITREE IS A GOOD GOVERNANCE PRACTICE?

Computerisation of land records has emerged as one vital area wherein ICT can be deployed to enhance governance in administrative processes. Already there are several such projects being implemented across India. DHARITREE is one such project being implemented in Sonitpur District of Assam, and by now the project has gone beyond the pilot phase and is replicated gradually in the entire state. The project is Country’s 1st web-technology based complete Land Records Management System and is being credited with one of the country’s best governance practice.

The project has facilitated plot wise details register which maintains information on RIC (Record-of-Right, Tenancy / Transformation, and cultivation, and other essential remarks), i.e. it maintains complete information on all types of lands. It provides a way for getting land details and relevant print outs without the involvement of the middle men. The project was launched on 28th December, 2003.

OBJECTIVE OF DHARITREE

The objective of the DHARITREE Governance project using Information Communication Technology (ICT) is to provide a web-based Land Records Computerisation system to the Revenue Department of Government of Assam, so as to automate the following activities:

- Online Mutation Processes
- Up-to-date correction and maintenance of Land Records
- Online access to up-to-date land records for citizens
- Drastic cut down on processing time through process reengineering
- Linking of Cadastral Maps with Plot Data
- Quality and prompt delivery of citizen centric services
- Maintain the Land Records data in the Chitha, and Jamabandi registers correctly, timely, and up-to-date
- Issuing the land owners / citizens all the essential certificates / reports, viz. Records-of-Rights (RoR), Land Holding Certificate etc., with quality and promptness
- Providing the judiciary all the necessary documents, viz. RoR, Order Proceeding etc. for quick disbursal of a land dispute case
- Providing the Land and Revenue Administration all the necessary MIS reports for faster monitoring, planning and decision making
- Making the Land Mutation Processes faster, correct, automatic, and up-to-date through online mutations
- Making land related data available all the time through the web enabled DHARITREE over a computer network
- Supporting agriculture census by providing up-to-date crop/horticulture cultivation information

Objectives & Achievements of DHARITREE
DHARITREE and its outcomes are significant from many ends. It has revolutionized land records system and management in Sonitpur District of Assam and now beyond Sonitpur. There are already visible manifold advantages from DHARITREE that enabled this ICT enabled e-Governance project address certain key administrative and governance challenges:

1. Reducing Administrative Hassle: DHARITREE has ensued smooth functioning of activities of Department of Revenue and Disaster Management. With detail land records management the hassles involved in manual works and documentation process is being overcome. Previously, the custodian of ‘Sadar Jamabandi’ (authenticated register of Record of Rights maintained village wise) was the Deputy Commissioner of the district and Sub-Divisional Officers of outlying sub-divisions. Hence, certified copies of Record of Rights (RoR) were issued only from DC’s or SDO’s offices. But after implementation of DHARITREE in all Circle Offices of the district, the Circle Officers have become the real custodians of RoR, which is now issued by the Circle Officer himself. In the earlier process of updating the ‘Sadar Jamabandi’ at DC’s or SDO’s office, it was done once in a year by land records staff of Circle Offices, due to which, there were huge backlog and citizens could not get the copies of RoR immediately after mutation process. Now in the present system, citizens can get certified copies of RoR on the same day of mutation from the concerned Circle Office, as the database gets automatically updated.

2. Transparency Ensured: the project has helped to deal with monetary corruption. Earlier the villagers have to grease the palm of the lat mandals or patwaris to even see their land status. Now they can view the land records on the computer screens. Transparency and accountability has increased since each change effected in the database is logged by the computer itself and limited access to the database is given only to the authorized official/ land records staff in respect of his own area/ jurisdiction.

3. Project Planning Advantage: DHARITREE has helped in better planning and management of projects especially in sectors like agriculture by providing better
and relevant land records information. Many periodic reports and forms required to be submitted to the Government and other authorities are now generated through the software DHARITREE, thereby reducing valuable time and effort.

4. Extensive, Efficient and Quality Citizen-Centric Services: DHARITREE has enabled to provide citizen-centric services like: Mutation Copy of Record of Right (Jamabandi); Land Holding Certificate; Land Valuation Certificate; Income Certificates to the citizens. CICs are also proposed to be used as Public services kiosks for citizen-centric services of DHARITREE. There is visible improvement in the service delivery mechanism to the citizens like issue of RoR. The services have become faster because RoR can now be issued in a matter of minutes whereas it took days or months earlier due to nonavailability of updated records.

5. Fast Decision making Support: A set of very handy and essential MIS Reports and easy availability of any report make decision making faster and hierarchy independent. Due to hierarchy-independent retrieval of all the necessary data, MIS reports and information, by simply clicking a few buttons of the DHARITREE System from their desktop, Administrators are able to take quick decisions for planning and implementation all along the hierarchy. This result in decentralized decision making based on a centralized information system. Thus there is little scope for decision or planning errors.

Citizen Centric services provided through “DHARITREE” in Sonitpur District (July 2005-November 207)
Project DHARITREE can be evaluated through the following governance indicators:

1. **DHARITREE HAS FACILITATED DECENTRALISATION PROCESS:**

DHARITREE has facilitated governance through key provisions that very much reflects our Constitutional provisions as well as provisions within key regulatory systems. It is promoting a decentralized governance system. Earlier, the certified copies of Record of Rights (RoR) were issued only from DC’s or SDO’s offices. But after implementation of DHARITREE in all Circle Offices of the district, the Circle Officers now issues RoRs. Decentralised system is further enhanced by enabling community participation in the process thereby reflecting the mandate of 73rd and 74th Constitutional Amendment. Participation of the community has indeed made this program work so far by giving relevant and required information and land related data to the management of DHARITREE.
2. PARTICIPATION OF LOCAL PEOPLE

The success of DHARITREE hinges on active participation of the local citizens. The data entry of ‘Chitha’ records of 1620 revenue villages of seven Revenue Circles of Sonitpur district is an instance of how and in what magnitude citizens of Sonitpur are involved in the process.

3. ACCOUNTABILITY OF SERVICE PROVIDERS TO THE BENEFICIARIES OF THE SERVICE: Accountability has increased since each change effected in the database is logged by the computer itself and limited access to the database is given only to the authorized official/land records staff in respect of his own area/jurisdiction.

4. SPEED & EASE OF SERVICE DELIVERY:

Land owners get their legitimate certificates with quality and without delay with maximum time lag of 48 hours, and thereby enabling them to obtain all the benefits out of their land holding. Also, they are benefited financially because they pay only the due amount for getting quality service. The end objective is to provide the citizens with authentic documents and information through a fast and reliable process. Therefore, the entire process of maintaining land records and issuing documents based on these records has become citizen centric. There is visible improvement in the service delivery mechanism to the citizens like issue of Records of Rights (RoR). The services have become faster because RoR can now be issued in a matter of minutes whereas it took days or months earlier due to non-availability of updated records.
5. SOCIAL WELL BEING: Through DHARITREE social being is sought to be achieved through effective, timely and affordable Governance-to-Citizen (G2C) service delivery. Services like land holding copies, agriculture certificates, and others are provided at a service charge. DHARITREE has facilitated in planning and project implementation as well as.

6. TRANSPARENCY:

Land Records are now available for access and viewing by officials as well as by the citizens over the web. Any change in land records comes to the notice of viewers immediately. This results in overall transparency. Transparency and accountability has increased since each change effected in the database is logged by the computer itself and limited access to the database is given only to the authorized official/land records staff in respect of his own area/jurisdiction.

7. REPLICABILITY: The project is being extended currently in 5 districts of Assam- Tinsukia, Jorhat, Dibrugarh, Kamrup Metro and Kamrup Rural. By March 2008, 155 circle offices across 27 districts of Assam shall be covered under this project. The application has been customized for replication in all the districts of Assam. The process is on and already it has been rolled out in districts of Tinsukia, Dibrugarh, Jorhat, Kamrup and Kamrup(Metro). Since the application is web based, the rural people will ultimately get all the information of their land through the Common Service Centers(CSC) going to be set up under ASWAN (Assam State Wide Area Network) where Revenue Circle Officers would be able to order registration in land records, the name of new land holders online. Digitization of plot level maps of Dhekiajuli town under that revenue circles already completed on experimental basis. Digitized plot maps linked to land records database successfully. Digitized maps to be linked to village information database being created for micro level planning. Proposal for digitization of all village maps of the district upto plot level has been sent to Ministry of RD, Govt. of India. Replicability challenges includes software modifications, language specifications, different kinds and levels of officials to manage DHARITREE, training and capacity building requirements of officials, different requirements of Software Requirements Specifications and resultant land management software development.
8. APPROXIMATE COST-BENEFIT ASSESSMENT OF PRACTICE:
Department of Information Technology (DIT), Government of India had initially granted 84 lakhs to initiate and implement DHARITREE as a pilot in Sonitpur district. Now the State Government is rolling out this program in other districts. Public-Private-Partnership (PPP) model is being followed in a share of 40:60 ratio to address revenue and sustainability challenge.

9. PARTNERSHIP: At the administrative level, the Department of Revenue and Disaster Management, Government of Assam is the prime stakeholder. Others include the District Administration, the Circle offices, subdivision offices, village pat, mandals. Outside the government domain, citizens are prime stakeholder and partner. Judiciary is another stakeholder partner along with the agriculture department. NIC Assam is another major partner. For the sake of ground implementation of DHARITREE the PPP model is worked out. The data entry and report generation responsibility was given out to private parties. The private party is also involved to provide Citizen Centric Services specific to land based services – this partnership is based on financial proposition of 40:60 (40 is the figure for District Administration and 60 is the ratio for the vendors).

10. SUSTAINABILITY:

The sustainability of DHARITREE is being taken care of. In order to make the computerized system sustainable, service charges from the citizens in lieu of computerized services like issue of RoR, Chitha copy, Land Holding Certificate and Agricultural Income Certificate are levied as permitted by the Information Technology Act, 2000. The rates fixed for services are issuance of computerized certified copies of jamabandi at Rs 30, office mutation process and issue of certified copies at Rs 25, partition process and issue of certified copies at Rs 50, conversion process at Rs 10, field mutation certified copies at Rs 10, issue of income certificate at Rs 15, land holding certificate at Rs 20, land valuation certificate at Rs 50, and issue of periodic patta at Rs 100 each. Since DHARITREE is being integrated with CICs and CSCs, the service delivery would improve and more traffic would result in case of demand and supply of services.
11. LESSONS LEARNT: DHARITREE provides few interesting things to learn. ICT has great potential and ability to facilitate governance for administrative and executive branches. That technology can deliver timely and accessible G2C services to the citizens at the community level at a flexible time and space and under effective cost conditions. Such ICT enabled governance practice helps in better inter and intradepartmental coordination for planning, design and implementation of development policies.

“DHARITREE is a Good Governance Practice”

Since the pilot level in 2004 till 2008 DHARITREE has come a long way in enabling a sound land records management system as well as facilitating governance for District Administration of Sonitpur, Assam. If the project is touted as a model web enabled land records system, it is also talked about due to its effective governance practice at least in providing land related Government-to-Citizen (G2C) services. In a detail conversation with Mr. Syed S. Kazi, Mr. Kamal Goswami, Deputy Commissioner, Sonitpur District, Assam talked about various aspects of DHARITREE.

Q. Your comments on DHARITREE as country’s first web based land records management system?
DHARITREE is a special endeavour for total Land Records Computerization by the Sonitpur district administration in association with NIC, Assam under the sponsorship of the Department of Information Technology (DIT) Government of India. The Project initially aimed at computerization of Land Records in one Pilot District in a State. Now it is being extended to 155 blocks across all 27 districts in Assam. The Program of the Project aims at Process Level Automation of Land Records in the State. National Informatics Centre (N.I.C), Assam provided the Technical expertise for the implementation of the Project including developing the software christened as DHARI TREE. The role of DIC, Sonitpur was equally laudable.

Q. The objectives behind initiating DHARITREE…
There were four main objectives in initiating DHARITREE:

Improvement in speed & quality of services to citizens

Ensuring greater transparency through web-enabled database

Ease of administration- By automation of role specific mutation workflow processes and up-to-date records correction through it. self generated reports for on the spot hierarchy independent fast decision

Centralized storage and access to land records data.
Q. How do you see DHARITREE facilitating governance of your District Administration?

I see DHARITREE as a good ICT enabled governance practice. Earlier, the custodian of ‘Sadar Jamabandi’ (authenticated register of Record of Rights maintained village wise) was the Deputy Commissioner of the district and Sub-Divisional Officers of outlying sub-divisions. Hence, certified copies of Record of Rights (RoR) were issued only from DC’s or SDO’s offices. But after implementation of DHARITREE in all Circle Offices of the district, the Circle Officers have become the real custodians of RoR, which is now issued by the Circle Officer himself.

In the earlier process of updating the ‘Sadar Jamabandi’ at DC’s or SDO’s office, it was done once in a year by land records staff of Circle Offices, due to which, there were huge backlog and citizens could not get the copies of RoR immediately after mutation. Now in the present system, citizens can get certified copies of RoR on the same day of mutation from the concerned Circle Office, as the database gets automatically updated.

Many periodic reports and forms required to be submitted to the Government and other authorities are now generated through the software DHARITREE, thereby reducing valuable time and effort.

There is visible improvement in the service delivery mechanism to the citizens like issue of RoR. The services have become faster because RoR can now be issued in a matter of minutes whereas it took days or months earlier due to non-availability of updated records. Transparency and accountability has increased since each change effected in the database is logged by the computer itself and limited access to the database is given only to the authorized official/land records staff in respect of his own area/jurisdiction.

Q. How is the sustainability issue handled in running DHARITREE?

In order to make the computerized system sustainable, service charges from the citizens in lieu of computerized services like issue of RoR, Chitha copy, Land Holding Certificate and Agricultural Income Certificate are levied as permitted by the Information Technology Act, 2000.

Q. From administrative perspective, what challenges are visible while implementing DHARITREE?
I don't see any major or even minor challenges in DHARITREE. The project is running well and now it is being emulated in other districts of the state. Of course we have limitations like training of officials in DHARITREE, some level of higher commitment and activeness from the officials concerned.

Q. What are the future prospects from DHARITREE?
Since the application is web based, the rural people will ultimately get all the information of their land through the Common Service Centers (CSC) going to be set up under ASWAN (Assam State Wide Area Network) where Revenue Circle Officers would be able to order registration in land records, the name of new land holders online.

Digitization of plot level maps of Dhekiajuli town under that revenue circles already completed on experimental basis. Digitized plot maps linked to land records database successfully. Digitized maps to be linked to village information database being created for micro level planning. Proposal for digitization of all village maps of the district upto plot level has been sent to Ministry of RD, Govt. of India.

“For NIC Assam it was a big Challenge”

DHARITREE is being projected as country's first web based computerization of land records management system. The role of NIC Assam in this is no less stupendous. NIC Assam State Technical Director, Mr. Hemanta Kr. Saikia shares the role of NIC Assam in facilitating and supporting implementation of DHARITREE successfully in Sonitpur District and now across 27 districts of Assam to Syed S. Kazi, Centre for the Study of Law & Governance, JNU in DC office, Tezpur (Sonitpur) on December 24th, 2007.

How did NIC, Assam unit got involved in DHARITREE?

National Informatics Centre (NIC) Assam got involved in DHARITREE since beginning in 2003 end. Since the project is a Mission mode project of Department of Information Technology (DIT), NIC Assam was involved since day one in all technical support and assistance for pilot implementation of DHARITREE in Sonitpur District.

How do you see the role of NIC Assam so far in designing and facilitating implementation of DHARITREE?
We see a very dynamic role for NIC Assam in facilitating framing and implementation of DHARITREE as a pioneer computerization of land records management system. Right from coming out the Software Requirement Specifications (SRS); making of the DHARITREE software to training, capacity building of users and officials, NIC Assam is totally involved in DHARITREE Project through its Sonitpur District unit. We were initially responsible for the pilot project in Sonitpur and now we are given responsibility to implement DHARITREE in almost entire state.

What are the core limitations that NIC Assam faced while taking up this responsibility?

NIC Assam was asked to prepare the DHARITREE SRS for the Sonitpur Pilot project within seven days. For NIC Assam it was a big challenge to prepare software specific requirements for DHARITREE within so small time frame. Another challenge came from the user community. If the users are not active and dynamic then it becomes a challenge at times to keep the system going strong. Training, capacity building and hand holding of users and officials was no less a challenge from operational point of view.

The role of District Informatics Centre (DIC), Sonitpur, Assam have been tremendous in the initiation and successful implementation of DHARITREE in Sonitpur and now in rest of the districts of Assam. Heading the District unit of NIC, Mr. Anup Kr. Baruah and his team played a crucial role in how to address issues of land records management from technology point of view. Here, Mr. Baruah shares the various technical aspects of DHARITREE that he and his team handled in its pilot as well as actual implementation. Mr. Baruah spoke with Mr. Syed S. Kazi, Centre for the Study of Law & Governance, JNU at DIO’s office at Tezpur, Sonitpur on December 24th, 2007.

Q. What has been your experience so far as the District Information Officer (DIO) heading the DIC, Sonitpur in implementation of DHARITREE?

Our role since beginning was more on the technical side. National Informatics Centre, Assam, prepared the initial version of Software Requirement
Specification (SRS) within seven (7) days and submitted to the district level committee on 8th January, 2004 for review. And the final version of the SRS was completed by the end of April, 2004, after five (5) rounds of presentation/discussion/feedback received from all the revenue officials of three (3) subdivisions and seven (7) circles of the district. The initial version of the software with data entry/edit, and report generation modules was delivered by end of May, 2004. Our team did the SRS study, study existing land records system, understand the problems, and then document the SRS. After proper review and estimate of requirements for a land records management we did the documentation of Software Requirements Specifications. After review of SRS, we developed the DHARITREE Software, designed it, and developed it for implementation. The SRS developed was of international standards and with ISO certification. We developed the Data Entry Module and the Report Generation Module. Our role was also necessary for capacity building. Extensive hands-on training on DHARITREE software to all the officials & staff was given during the period from February to March 2005, by NIC. Our main role can be seen in terms of providing technical consultancy to the District administration now and then. Overall we see a very challenging role for us so far.

Q. The highlights of the technical aspects of DHARITREE that DIC Sonitpur was involved in development?

We developed the Online Mutation process which is Complete Role-specific workflow based automated mutation. It automates all the processes of mutation and automatically composes mutation notes and corrects the records on different registers. Also Business Process Reengineering was carried out in DHARITREE from design to implementation stage, in the following ways to drastically reduce processing time and make Land Records up-to-date. We have made DHARITREE as secured system DHARITREE is a secured system with measures like Biometric authentication for access to a machine of the Circle Office Server / LAN; Two(2) Levels of User Account and password authentication in DHARITREE; Role-based functionality / Accountability; Encryption / Decryption; Audit Trailing; Server only accessible only to the Circle Office.

Q. How do you see the operation of DHARITREE so far and what are the challenges in managing a system like this?

For this project, it was decided that the basic land records, namely, ‘Chitha’, wherein all the details of land including details of tenancy/transformation, crops etc. were available, would be taken for master entry of data. It was also decided that the ‘Jamabandi’ (Record of Rights) the Tauzi Bahira Register and Encroachment Penalty Register (the latter two are minor but indispensable land records registers) would be derived from the main database created out of the ‘Chitha’ records as most of the columns of ‘Jamabandi’ were already there in the ‘Chitha’ records. The data entry of ‘Chitha’ records of 1620 revenue villages of seven Revenue Circles of Sonitpur district was started in June, 2004, by the Data
Entry Vendor selected for the purpose at a central location (DC’s Office). 50 clients with a Server were used for massive data entry work in three shifts and a total of about 5.3 lakh “Chitha” records and 1.70 lakh “Jamabandi” records were entered within eight months from the date of start. Validation of data was done with the help of land records staff side by side for ensuring accuracy of digitized data.

The processes of mutation, partition and conversion are incorporated in the DHARITREE software whereby the entire processes like receipt of application, issue of mandatory notices, recording the order of Circle Officers and land record staff, notes on hearing and final order for effecting the required changes in database are done through the computer. Various reports including Revenue Demand Abstract (locally known as Doul), are generated through the system, thus eliminating man-days of manual calculations.

The challenges are there. Getting the right kind of feedbacks and in time from the Circle offices is one challenge. Computer hand holding training and capacity building to manage the project is a frequent need. However, we have all the necessary administrative support in dealing with any difficulty.

As one of the original core member of DHARITREE project from the side of District Administration of Sonitpur, Mr. Fakruddin Ahmed, currently Sub-Divisional Magistrate, Baksa District, contributed his lot in initiating and implementing DHARITREE in Sonitpur District. As the then Circle officer of Dhekiajuli sub division of Sonitpur, he took initiative in running the project effectively. In a brief conversation to Mr. Syed S. Kazi, Centre for the Study of Law & Governance, JNU, Mr. Ahmed stated about how DHARITREE has emerged as a good governance practice.

Q. As one of the original core member of DHARITREE project from the side of District Administration of Sonitpur, how do you perceive the project’s roll out forward?
I feel good happy that DHARITREE project has sustained and is moving forward. Though initially it was a great challenge for us in developing and implementing the project, gradually things fell in order and now we have this system being replicated in other districts for proper land records management. I see the role of the District Administration and key officials and the supportive role of NIC State unit tremendous in this entire process.

Q. Is it a good governance practice?

Definitely yes. The project has helped in day-to-day administration very much. Because of DHARITREE citizens are getting land related services in time and with minimal cost and harassment. There is greater transparency in the system now.

Q. Can you site some hurdles in DHARITREE implementation and operation?

We need to have right kind of people at right place. In other words, officials responsible for DHARITREE have to be active and dynamic in making the system work. This is more necessary at the Circle level. Also another challenge is can we provide the services down to the panchayats level. As of now citizens have to come to the Circle offices to get their works done.

Lessons learnt:

Technology helps service delivery but it is not the only requirement of an efficient service delivery. A right selection of human resource in terms of officers in government who have the passion, commitment and the ability to sustain the system for a longer period of time make the real change.