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Management Information System

KUDUMBASHREE MIS

What is Kudumbashree MIS?

The Management Information System of Kudumbashree Mission which was launched in 2011 and is now being used by Community Development Societies, District Missions and State Mission for monitoring and planning of various programs associated. The data uploaded onto the online MIS includes personal details of 40 lakh women members of Kudumbashree NHGs, monthly thrift and credit behavior of 2.7 lakh NHGs, loan particulars of all live loans in all branches of all banks where there are Kudumbashree accounts, details of all farming groups, micro enterprises, Balasabhas as well as particulars of Ashraya families and the benefits accruing to them. In a sense it would provide a record of actual benefits accruing to the poor through Kudumbashree. This data is regularly updated – in the case of thrift and credit, on a monthly basis. Reports generated from the database enable monitoring and evaluation of Kudumbashree activities up to the ward level.

Various activities involved at Head Office level in the present state of MIS includes System software maintenance and additions, monitoring of data updation at various levels, studying requirements of report formats at all levels and creation of reports, ensuring system readiness at CDS level and coordination with hardware maintenance units, ensuring broadband internet connectivity at CDS level and coordination with BSNL, trainings related to MIS and server level trouble shooting and coordination with vendor. Also, as a second phase of the MIS project, it is proposed to do a study on implementation of mobile application for updating data using mobile phones from NHG level.

Kudumbashree MIS is taken as model for the development of eNRLMS for National Rural Livelihood Mission (NRLM). Teams from NRLM visited Kudumbashree twice for studying the MIS application, monitoring and evaluation systems and field level data collection & verification process.

Need for Kudumbashree MIS

A manual system of data management existed in Kudumbashree network till the implementation of MIS software. The process involved data collection from neighbourhood groups and consolidation at various levels namely ADS, CDS, District Mission and Head Office. Due to manual consolidation and the same at various levels, several erroneous data were reported to State Mission. The whole process also consumed lot of man-hours for completion. The following data were collected in the manual system:

- Micro finance: Thrift & credit, linkage loan, interest subsidy, matching grant
- Micro enterprise: Subsidy details, loan details

- Collective farming: Incentive details, account details, interest subsidy
- Ashraya: Implementation details
- Balasabha: Count, activities

The tedious task of manual digitization of the data and its in-effectiveness lead to the need for a digitized MIS. The MIS was originally conceived to address the following aims:

- An effective planning tool
- Continuous monitoring and evaluation of programs
- Error free data
- Avoid data loss during data flow

- Avoid delay in obtaining data
- Include all programmes
- Ease of data consolidation

Reporting tool: **iReport 1.2.2**
 Web Server: **JBoss Studio**

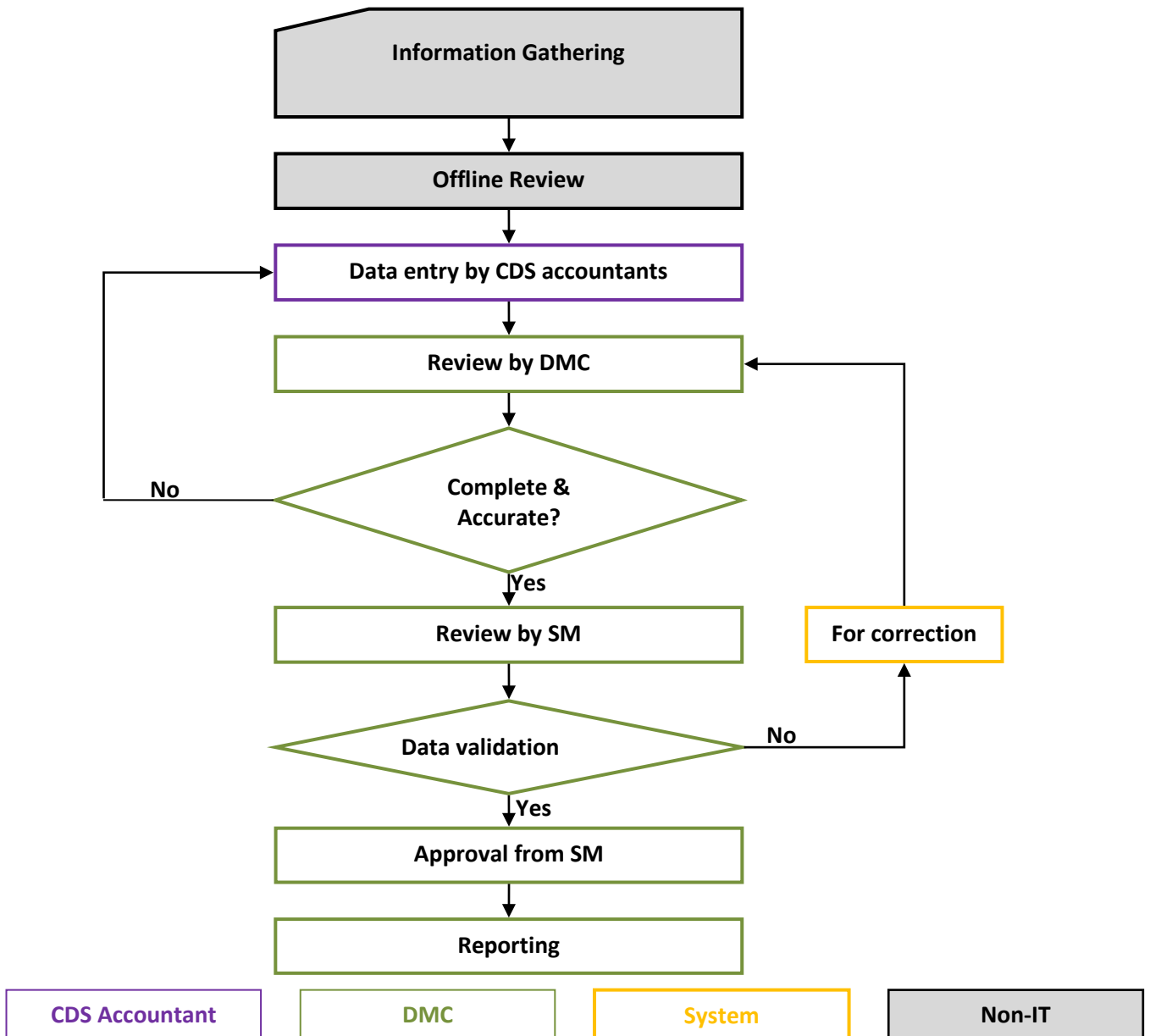
After completion of each module by C-DAC, a combined meeting of C-DAC and Kudumbashree officials was convened to analyze and fine tune the module. Based on the requirements from each level of operations, around 300 different types of reports were designed and generated out of different combination of data available in each module. Each module on completion was handed over to Kudumbashree Mission for testing. MIS Team did the module testing by entering sample data collected from nearby Panchayaths. The issues identified while making the sample entries were reported to C-DAC for making corrections

Requirement analysis

System requirement study was carried out by C-DAC after several rounds of discussions with various teams in Kudumbashree Mission. On finalization of the document, C-DAC submitted the SRS document to Kudumbashree Mission for approval. On approval of the SRS, C-DAC started the software development.

Language: **JAVA (Seam framework)**
 Database: **Postgresql 8.4**

Data Flow



Infrastructure Requirement

1. Server

M/S PCS Technology, Thiruvananthapuram was assisted by KELTRON for the purchase of computer server, storage enclosure & operating system. The configuration and co-location of the server was done by them in corporation with the CDAC software developers. The sever configuration is mentioned below:

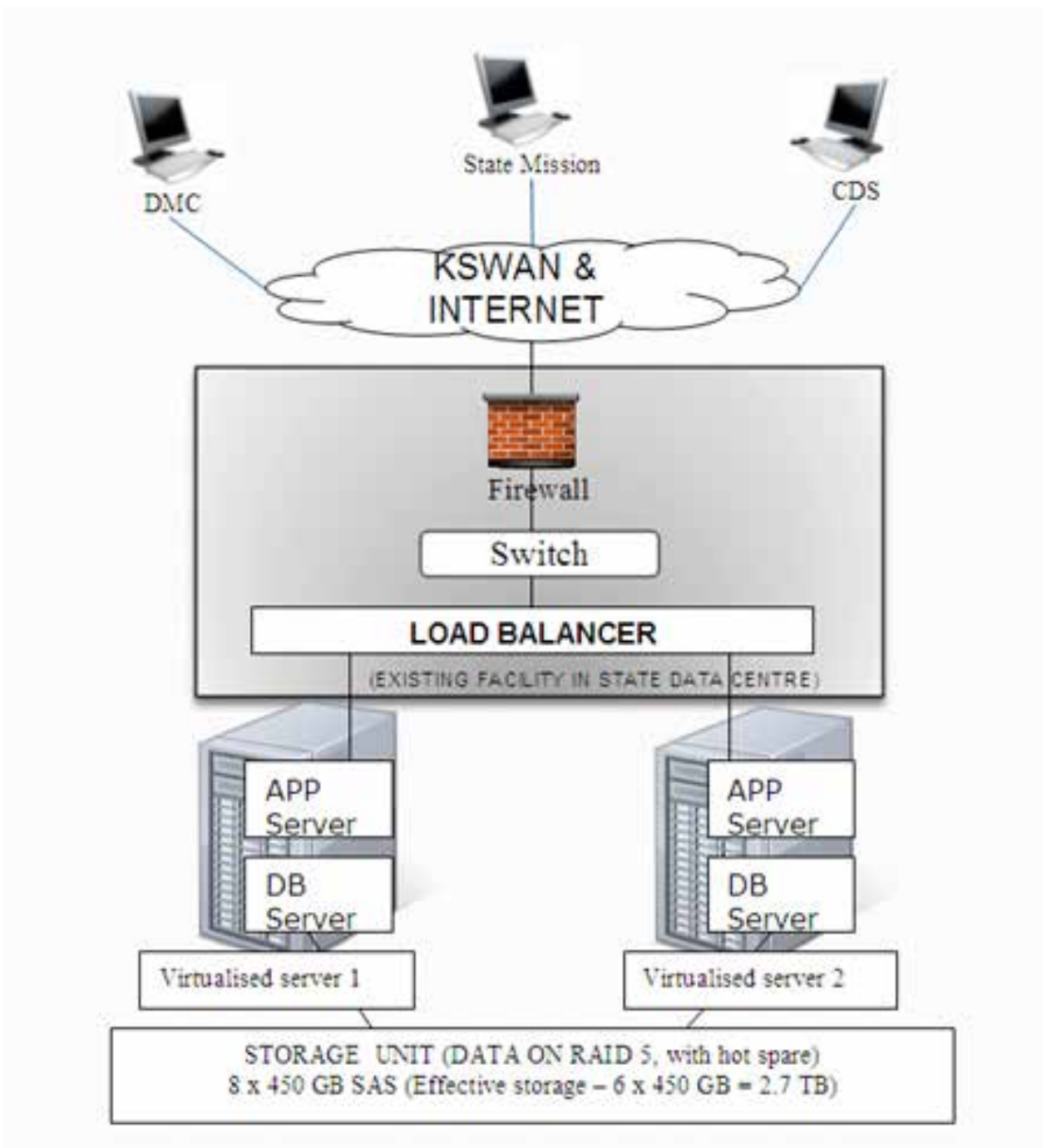
Processor: Intel Xeon E5520 Quad Core Processor, 2.6 GHz

Memory: 32 GB(4*8GB) RAM
OS: Red Hat Enterprise Linux AP
Hard Disc: 3.6 TB (8*450 GB)

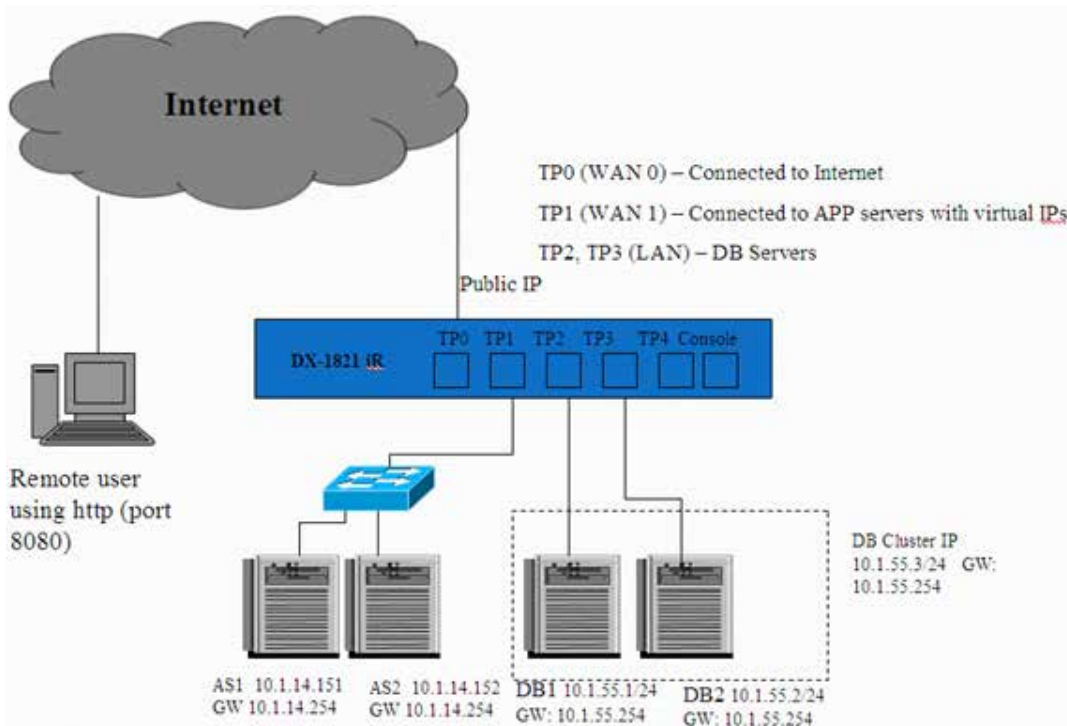
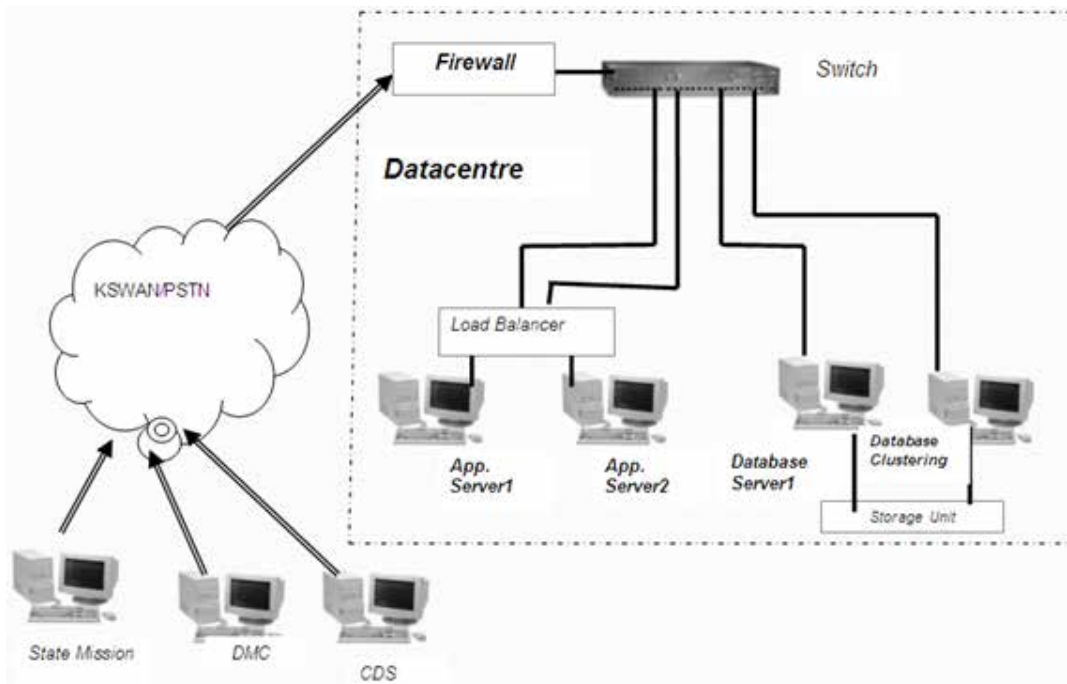
2. Network

As part of hooking up connection to Kudumbashree Mission Office located at TRIDA buildings, Medical College from the State Data Centre for the effective management of Kudumbashree MIS, a wireless connection is established with the help of IT Mission.

The system architecture is shown below:



Connectivity scheme is shown below:



3. Connectivity:

A tie up was made with BSNL to provide broadband connectivity for all the CDS offices. A exclusive plan was formulated for kudumbashree -Start up 250 plan-which include the modem purchase and one year subscription charges which summed upto Rs 3,350, where as in rural areas USOF 150 plan was provided.

SI no:	Item	BBG 250 (for urban areas)	BBG USOF 150 (for rural areas)
1	Monthly fixed charge	200	150
2	Discounted annual charges for broadband	2000	1500
3	Modem - type1 (inclusive of tax)	1144	Free
4	Security deposit	Waived off	Nil
5	Installation charge	Waived off	Nil
6	Free usage	1 GB	1 GB
7	Additional usage charge	Rs. 0.20/MB	Rs. 0.30/MB
8	Free calls per month	50	30
9	Call charges	Rs. 1.00/call	Rs. 0.80/call
Service tax extra			

The expense for internet connection for the first year will be paid in advance by Kudumbashree Mission. From second year onwards, monthly payment will be made by respective CDS from the Administrative grant to CDS. During the year 2015 the BBG-250 plan was revised to BBG-350 which sums to RS 4,200/- exclusive of tax and BBG USOF -150 was retained.

4. Computer for CDS:

All 1072 CDS were give a one time fund of Rs 1,00,000/- from the Ashraya project for the purchase of desktop computer and related accessories for the monthly data entry of the projects. The purchases were done decentralized and the following configuration was met for each purchase:

- Intel/AMD processor with minimum 2 GHz
- Intel Asus motherboard of equivalent
- 160 GB hard disc
- 2 GB RAM
- 17" monitor
- DVD writer
- Multimedia Keyboard
- Optical mouse with pad
- Speakers
- Micro ATX cabinet
- OS: Linux Ubuntu- Malayalam enabled, pre-installed with Unicode and media

Software Development

The Management Information System is a part of the 'UNNATHI' project of Kudumbashree Mission. The MIS component is funded by Ministry of Information Technology, Government of India. A brief of the 'UNNATHI' project is given below:

The project consists of 3 parts:

The first part proposes to introduce various ICT support activities at the level of the CDS to document and facilitate the massive gender based learning programme implemented by Kudumbashree touching all the 2.7 lakh NHGs of the state. For this purpose, training, Software and

hardware support are envisaged. The second part deals with the strengthening of ICT initiatives of women facilitated by Kudumbashree. The third part deals with the formation of a consortium of Kudumbashree IT Units for equipping themselves for managing the Centers, Marketing of their services, for entering new areas such as web site designing, Software development, Content writing etc, thus reducing over dependency on Govt. Department Jobs.

1. Gender Empowerment

Each gender group need to have a clear idea of their own role and space available in the community. They should be able to identify the existing problems and adopt an approach to solve them through a self-learning process. Kudumbashree's network of 38 Lakhs families spread across 1.80 lakh neighborhood groups in over 16000 Area Development Societies and 1058 Community Development Societies is a very effective platform for Gender education. In order to facilitate such a move networking of these NHG/ADS/CDS system is essential.

For this purpose the following activities are proposed

- Hosting of a web Portal – "Sreesakthi" Web Portal in Malayalam
- Development of Management Information System (MIS)
- Computer awareness training to CDS members
- Providing 1 computer and accessories each in 1065 CDSs.

2. Training & Hardware support for IT units

Kudumbashree has considered ICT field as one of the major area which can offer large number of employment opportunities to educated youth especially women belonging to BPL families. As of now, number of Kudumbashree IT units are 175. In addition to the Unit members who are also the owners of the units, these IT units are providing employment to more than 1200 women.

3. Consortium of IT units

At present Kudumbashree is canvassing major works and get it done through Kudumbashree IT Units. The data processing works from Government sector is drying out, but the IT units are still looking for more works from Government through Kudumbashree. This dependency should be reduced to the minimum. At the same time there should be some mechanism for canvassing big works centrally from Government/Private agencies and delegating proportionate work assignments to Kudumbashree IT units functioning in the districts. The project cost comes to INR 33.35 Lakhs for this component.

The bulk of the costs goes to providing hardware in the CDS who do not have computer facilities. The Department of Information & Technology, Govt. of India has sanctioned an amount of Rs.62,00,000 as grant under a project submitted during January, 2008. (No. 8(27)/2007-EPD, Govt. Of India, Ministry of Communication & Information Technology, Department of Information Technology, New Delhi).

Modules

1. Administration module: It manages all the modules and functionalities of the proposed system. It has user module having user roles & permissions and master data settings of controlling master tables and other concerned project tables.

2. Microfinance:The following Programmes are covered under Microfinance. Every month one transaction is expected from every NHG.

- o Thrift and credit
- o NHG grading
- o Linkage Loans
- o Bulk Loan
- o Matching Grand

3. MicroEnterprise:The information of Micro Enterprises is captured at CDS level. Micro Enterprises CDS Level Operations include entry of following data.

- o Primary data
- o Member details
- o Training details
- o Bank loan details
- o Other funds
- o Subsidy – Forwarding application to DMC

4. Collective Farming

- o JLG details
- o Jlg member details
- o Crop details
- o Support details
- o Bank Loan details
- o Incentives

5. Social Development

- Balasabha
 - o Balasabha Primary Details
 - o Activity Details
 - o Member Details
 - o Fund Details
- Ashraya
 - o Ashraya Component Details
 - o Ashraya Funding Agency
 - o Ashray Family Details
 - o AshrayBeneficiaries Details
 - o Ashraya Beneficiary Fund Expenditure

6. Plan and Expenditure

- o Fund Allocation Details
- o Fund ReAppropriation
- o Fund Transfer to DMC
- o Fund Transfer to CDS
- o Fund Receipt
- o Fund Expenditure

7. CDS Action Plan

- 8. Reports Module

Training

1. Training to Master trainers

Kudumbashree Mission identified 62 data entry centers across the state for entering the past data to be entered into the system. These IT units of Kudumbashree Mission were selected as Master trainers. First phase training to these master trainers were given using developers from C-DAC regional wise. One of the ADMCs in each District Mission was designated as the nodal officer for implementation of the MIS project at district level, and she/he was also instructed to attend the training.

2. Training to CDS accountants

The Kudumbashree MIS software system developed by C-DAC became operational on February 2011. Past-data entry is was completed. Monthly updation of Micro finance data and entry of data pertaining to other modules namely Collective farming, Micro Enterprise, Ashraya and Balasabha should be done by CDS accountants hence a two day workshop on Kudumbashree MIS was conducted in Thiruvananthapuram in which CDS accountants were trained in the programme and basic functionalities. Hands on trainings was given to CDS accountants for doing the entries. Since then hands on training was given every year to the CDS accountants.

3. Training to CDS Chairpersons/Vice chairperson

Orientation training to CDS Chairpersons and Vice

chairpersons were given by MIS Team in Trivandrum. CDS chairpersons and Vice chairpersons from all districts participated in the training programme. Detailed sessions on the importance of MIS, the procedures and infrastructure to be ensured for implementing MIS as well as presentation of various modules were covered in the sessions. During the CDS chairpersons training after every election a similar training session is conducted as a part of their training sessions.

4. Training to Mission team

Orientation training to State Mission Staffs, District

Mission Coordinator and Assistant District Mission Coordinators were given by MIS Team in Head Office. The DPMs who are in charge of MIS coordination and monitoring are given hands on training every year.

5. Hands on training – various levels

Hands on trainings for the CDS accountants/CDS chairpersons for managing the MIS were conducted at district/block level utilizing the service of the trained IT unit members as Resource Persons. Various modules, account management, report generation etc were covered in the sessions.

Field level Data Collection

At end of every month the consolidated monthly report of the NHG is collected by the ADS during the cluster meeting and then the data is handed over to the CDS accountants via CDS chair person. The data is validated and entered into the MIS. For this purpose a monthly data Consolidation format is given to the NHGs.

കുടുംബശ്രീ പ്രതിമാസ വിവരശേഖരണ ഫോറം									
സി ഡി ഏസ്									
മാസം	വാർഡ് നമ്പർ	എ ഡി ഏസ്സിന്റെ പേര്	അടങ്കലടങ്ങിയിട്ടുള്ള പേര്						
തൽമാസ ത്രിമാസ			വാർഡ് തിരിച്ചടവ്	ത്രിമാസ പിൻവലിച്ചത്	ആനുകൂല്യ വാർഡ് എസ്				
അടങ്കലടങ്ങിയിട്ടുള്ള സ്വന്തം തടവുകാർ പിൻവലിച്ച തുക പവർത്തനങ്ങൾ അടങ്കലടങ്ങിയ കച്ചവടം തുടങ്ങിയവ			തിരിച്ചടച്ച തുക	കൈമാറ്റമുള്ള തുക (മാസാവസാനം കണക്കാക്കി)			ബാക്കി തുക (മാസാവസാനം കണക്കാക്കി)		
ലിങ്കേജ് വാർഡ് വിവരങ്ങൾ									
		ബ്രാഞ്ച്	തൽമാസ മേമ്പ് ചെയ്ത തി						
പേര്	പ്രതിമാസം അടക്കണ തുക		വാർഡ് തുടങ്ങിയ ആവശ്യം				അട		
മുണരോക്താക്കളുടെ എണ്ണം		റാഷിയം ഗ്രാന്റ് തുക തീയതി		പലിശ നിരക്ക്		തിരിച്ചടവ് കാലാവധി (മാസത്തിൽ)			
തൽമാസം അടച്ച തുക			ബാക്കി തുക		തിരിച്ചടവ് എത്രത്തോളം തവണ				
കൂട്ടത്തിൽ നിന്നും തൽമാസം തുക പോയ അംഗത്തിന്റെ പേര്					BPL/ APL		GE/ MING SC /		

REPORTS AVAILABLE

1. DISTRICT WISE NHG COUNT

SL NO	DISTRICT	NHG	GENERAL NHG	ST NHG	COASTAL NHG	SC NHG	MIN NHG
1	Alappuzha	19254	15834	12	1632	1182	594
2	Ernakulam	21982	16664	80	1768	1130	2340
3	Idukki	11627	8919	565	0	1158	985
4	Kannur	19362	17295	320	597	255	895
5	Kasargode	10567	8225	721	313	406	902
6	Kollam	21169	17794	45	603	1419	1308
7	Kottayam	14317	12533	114	0	625	1045
8	Kozhikkode	27284	24189	87	555	606	1847
9	Malappuram	25141	16879	53	396	2006	5807
10	Palakkad	22592	18367	129	0	2496	1600
11	Pathanamthitta	9238	7753	48	0	1151	285
12	Thiruvananthapuram	28221	23172	257	1163	2368	1261
13	Thrissur	22706	17757	36	455	2088	2371
14	Wayanad	9200	6649	1426	0	149	976
TOTAL	262660	212030	3893	7482	17039	22216	

2. DISTRICT WISE NHG MEMBER COUNT

SL NO	DISTRICT	TOTAL MEMBERS	SC MEMBER	ST MEMBERS	GENERAL MEMBERS	MINORITY MEMBERS
1	Alappuzha	289655	33922	1019	207551	47163
2	Ernakulam	331052	40621	2447	193565	94419
3	Idukki	155773	21649	9109	71815	53200
4	Kannur	311570	12942	6030	235419	57179
5	Kasargode	175379	9180	12067	122406	31726
6	Kollam	285356	36646	1255	197586	49869
7	Kottayam	216605	24437	3276	129108	59784
8	Kozhikkode	453517	41062	2431	307842	102182
9	Malappuram	381002	54731	1411	137120	187740
10	Palakkad	300364	57154	2251	194701	46258
11	Pathanamthitta	142962	27217	1274	103938	10533
12	Thiruvananthapuram	437919	65553	5111	290427	76828
13	Thrissur	343075	59637	819	198157	84462
14	Wayanad	114832	5817	18945	44271	45799
TOTAL	3939061	490568	67445	2433906	947142	

3. DISTRICT WISE MICROFINANCE STATUS

SL NO	DISTRICT	THRIFT	INTERNAL LOAN
1	Alappuzha	31035.59	101042.09
2	Ernakulam	29408.73	126871.92
3	Idukki	29864.06	113942.86
4	Kannur	39918.21	190832.71
5	Kasargode	20540.16	102250.65
6	Kollam	25484.31	83366.00
7	Kottayam	22051.57	71252.57
8	Kozhikkode	45256.73	231635.29
9	Malappuram	36772.67	78163.96
10	Palakkad	22334.79	65638.99
11	Pathanamthitta	12491.21	27246.89
12	Thiruvananthapuram	43061.11	172362.59
13	Thrissur	32347.01	204325.21
14	Wayanad	18130.44	87797.71
TOTAL		408696.58	1656729.43

SL NO	DISTRICT	NHG LINKED	LOAN AMONUT	NHG PROVID- ED MATCHING GRANT	GRANT AMOUNT
1	Alappuzha	14111	78112.69	6412	26189567
2	Ernakulam	19027	58391.73	8955	37235566.7
3	Idukki	7872	57889.04	4670	21020055
4	Kannur	14329	44213.42	8604	38447067.21
5	Kasargode	8398	19564.29	6232	27083143
6	Kollam	13941	72642.13	5793	23437773.8
7	Kottayam	8415	36616.08	2962	12355630
8	Kozhikkode	16247	47096.50	9420	39737635
9	Malappuram	17687	58656.60	5243	22456674
10	Palakkad	17801	77430.42	8034	34452563
11	Pathanamthitta	6674	33450.25	3086	12962382
12	Thiruvananthapuram	20144	90847.69	11772	53457524
13	Thrissur	16605	84775.91	6874	30999154.55
14	Wayanad	6682	36880.24	4389	19662353
TOTAL		187933	796566.98	92446	399497088.3

4. DISTRICT WISE BALASABHA COUNT

SL NO	DISTRICT	BALASABHA	NO OF GIRLS	NO OF BOYS
1	Alappuzha	1531	12600	11381
2	Ernakulam	2344	18640	20837
3	Idukki	867	7059	6446
4	Kannur	1999	15939	16510
5	Kasargode	1737	14849	13468
6	Kollam	1432	13317	12809
7	Kottayam	1551	12905	12874
8	Kozhikkode	1905	15905	15722
9	Malappuram	2555	22835	21462
10	Palakkad	2220	18388	16942
11	Pathanamthitta	1612	13145	13284
12	Thiruvananthapuram	3086	25522	23928
13	Thrissur	3100	27947	27411
14	Wayanad	873	6671	6218
TOTAL		26812	225722	219292

5. DISTRICT WISE JLG DETAILS

SL NO	DISTRICT	JLG	NO OF MEMBERS	AREA UNDER CULTIVATION	NHG AVAILED LOAN	LOAN AMOUNT
1	Alappuzha	5174	52073	1579191	699	124565036
2	Ernakulam	6072	54053	1651159	1598	216469407
3	Idukki	6364	73405	3401536	1451	192736000
4	Kannur	6289	60861	1916097	412	62740000
5	Kasargode	3430	36367	1491852	522	71354400
6	Kollam	2998	34640	674519	646	133921800
7	Kottayam	2655	19525	1913941	458	49389124
8	Kozhikkode	6451	59561	1896823	956	89411060
9	Malappuram	4829	46244	3143946	1187	243278136
10	Palakkad	2345	17554	1630532	754	102875490
11	Pathanamthitta	2679	29152	1059635	536	60360757
12	Thiruvananthapuram	3482	21649	1085188	1200	181984613
13	Thrissur	3569	35275	2673732	1033	197856500
14	Wayanad	4080	53985	2217458	751	152637200
TOTAL		60417	594344	26335609	12203	1879579523

6. DISTRICT WISE MICROENTERPRISE DETAILS

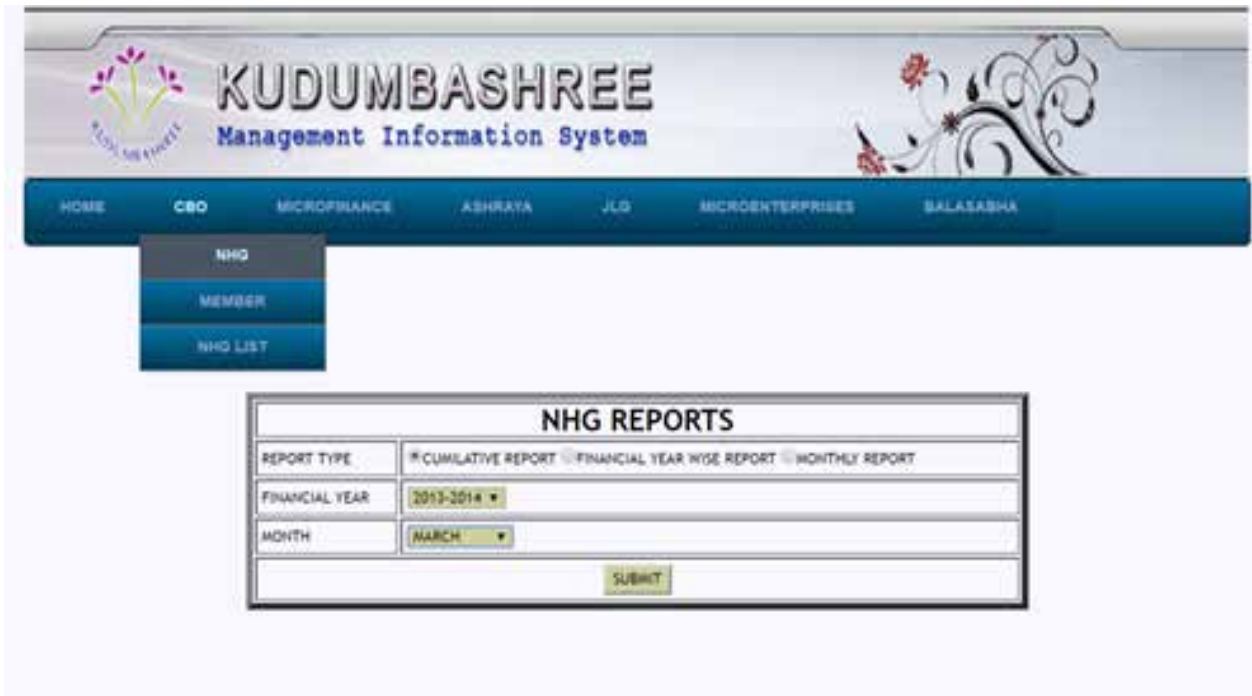
SL NO	DISTRICT	NO OF ME	ME MEMBERS
1	Alappuzha	1686	12267
2	Ernakulam	1401	19769
3	Idukki	921	7288
4	Kannur	1025	9832
5	Kasargode	310	5757
6	Kollam	1316	9279
7	Kottayam	1251	6091
8	Kozhikkode	1139	14590
9	Malappuram	1541	8031
10	Palakkad	3065	16964
11	Pathanamthitta	932	7401
12	Thiruvananthapuram	1485	21140
13	Thrissur	1533	13613
14	Wayanad	609	5241
TOTAL		18214	157263

7. DISTRICT WISE ASHRAYA DETAILS

SL NO	DISTRICT	NO OF PROJ-ECTS	NO OF FAMI-LIES	NO OF BENIFICIA-RIES	PROJECT COST	FUND RE-LEASED	TOTAL EX-PENDITURE
1	Alappuzha	145	8921	17821	12283.33	958.16	747.93
2	Ernakulam	193	17022	37586	12939.86	1476.36	2495.56
3	Idukki	115	6418	14312	7241.64	739.73	633.47
4	Kannur	160	5168	9582	4394.82	520.23	243.34
5	Kasargode	81	3764	8884	5244.80	371.73	270.19
6	Kollam	143	13204	32758	10233.01	946.52	619.53
7	Kottayam	161	8810	19616	8154.56	791.68	174.69
8	Kozhikkode	168	11083	21767	8604.03	651.66	348.93
9	Malappuram	160	13174	32443	8925.48	582.86	295.32
10	Palakkad	177	17346	28988	11162.58	791.23	283.68
11	Pathanamthitta	118	8894	20352	6032.11	615.15	204.80
12	Thiruvanantha-puram	137	11556	21938	10079.47	540.12	94.69
13	Thrissur	192	15228	25139	14519.93	876.26	386.29
14	Wayanad	71	5660	11427	6281.48	478.33	188.30
TOTAL	2021	146248	302613	126097.09	10340.02	6986.70	

New Reporting tools

Kudumbashree MIS stores enormous data under different project due to increasing in the data volume the Report module of the MIS became slow. There emerged requirement for a new monitoring format and hence a report generation software was developed and is available for public viewing via Kudumbashree website's MIS link or from the direct link (<http://103.251.43.153:81/misapi/reports/home.php>). Reports of all module are available cumulative, Financial year wise and month wise.



Modifications Made

1. Software:

In addition to the existing modules a HR module was developed to enter the staff details and their appointment details. A new training module was also incorporated which records the details of all the trainings and the participation details. CDS action plan module was also incorporated so as to enter the yearly action plan of each CDS, their projects, fund allocated etc

2. Database:

Two changes were made in the database the first one was made in 2014 when the maximum number of rows in the table which stored the thrift and credit details. The data till March 2014 was copied to a new database table named and the only the data after that was retained. The second change was made in all the tables related to the CBO details correct the ward alignment and CDS bifur-

cation details

3. Server:

In the year 2016 the Kudumbashree sever crashed due to the Hard disc failure and hence the server was revamped and the data was moved to a shared memory unit.

Drawbacks

The major drawback of the MIS is that the new Projects taken up by Kudumbashree after the deployment of the MIS was not incorporated. The MIS mainly focus on the physical progress of the project the financial expenses incurred is not captured. The fund flow and beneficiary fund transfer details are also not captured in this MIS.

Future scope for improvement

The MIS could be revamped incorporating all the new projects and Progress of all the central government schemes. The reports of all the Project irrespective of their nature and funding agency could be made available in a single platform. Aadhar seeding, fund flow capture module can also be incorporated to monitor if the beneficiary receives the benefit she is eligible for.