

Indian Rural Panel – Uncovering the Farmer’s Mindset



By



Exclusive Indian Research partner with IRIS

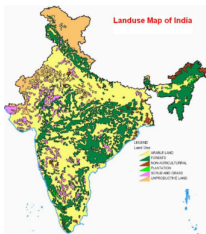
Date : 23rd September, 2017

-  Overview of Indian agriculture and need for having a farmer panel
-  Current panel scenario in India and Q&Q's engagement
-  Understanding mammoth task of the panel - depth and width of the panel
-  Detailed methodology – Panel Set up and Unique Features
-  Current Status of Panel
-  Challenges faced
-  Future and Scope of the panel



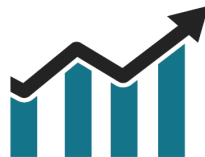
Overview of Indian agriculture and need for having a farmer panel

Indian Agriculture – An Overview



43%

Land Share
under Agriculture



17%

Sector Share
to GDP



38%

Export Share
Including agriculture and
related goods



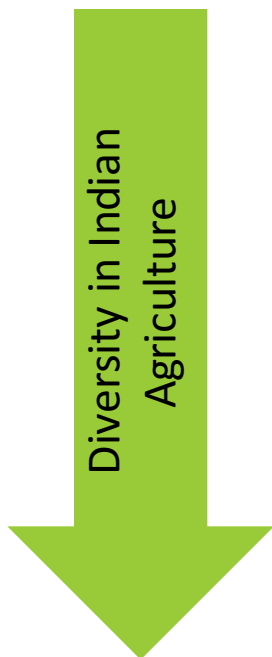
70%

Population Livelihood
Dependent on agriculture
and allied activities



58%

Workforce
Employed in agriculture and
allied activities



127 Agro-climatic zones in India – based on natural resources, major crops, farming systems, production constraints and socio-economic conditions



3 Agriculture Seasons – *Kharif* – June to November, *Rabi* – December to March and *Zaid* – April to June



4 Categories of Crops Grown – Food crops (Cereals, pulses), Cash Crops (Sugarcane, Oilseeds, Cotton, Jute, Tobacco), Plantation crops (Tea, Coffee, Coconut, Rubber) and Horticultural crops (Fruits, Vegetables, Flowers and Spices)

Need of Farmer Panel and Q&Q's Engagement

- 🌿 **Indian Agriculture Industry** – Home to top International Agri Input Companies including Seeds, fertilizers and Pesticides.
- 🌿 India is the 4th largest producer of Crop Protection Chemicals after US, Japan and China.
- 🌿 CAGR for Indian agro chemical industry is at 11%.



- **Diversity in Indian agriculture** (type of crops grown, land holding pattern, socio-economic conditions of the Indian farmer) makes it difficult for the Agri Input companies to ascertain size of the industry.
- **Regular requirement of market information** by Agri-input companies about the products, brands sold and how farmers use their products.
- One time Adhoc studies are not able to provide correct picture of Volumes of agri input consumed and market share of brands



Currently **No panel in India** which encompasses entire geography and all crops grown in the country!!!!

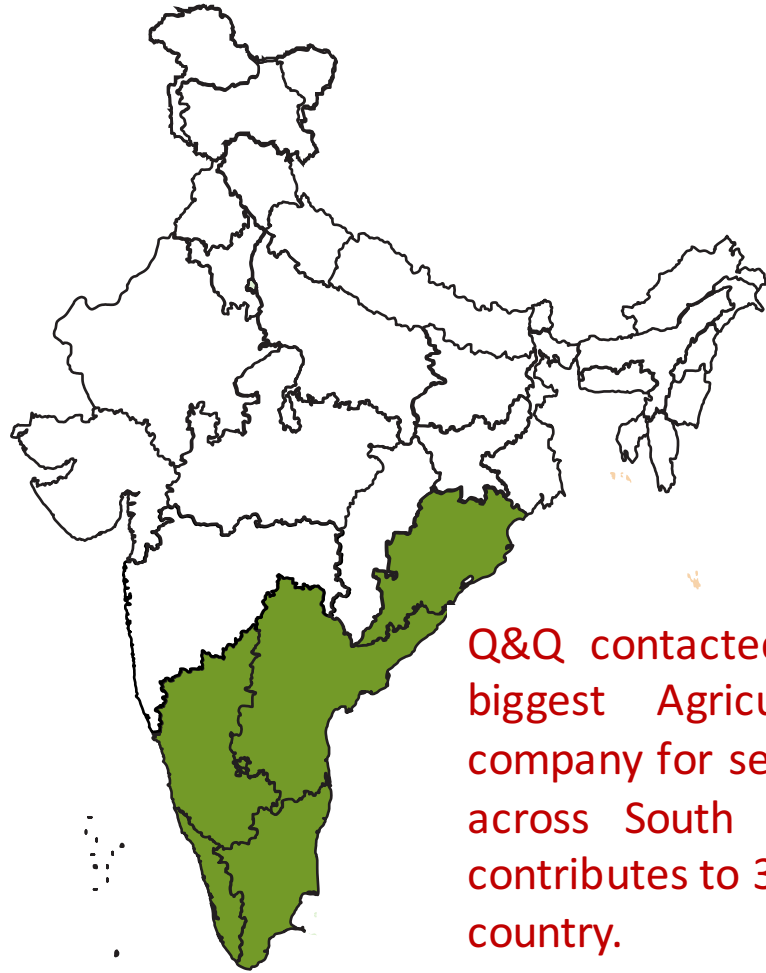
WHY Q&Q??

- 🌿 Q&Q has been engaged in Agriculture based MR since 2004.
- 🌿 Client base includes major agri input companies both national and multi national.
- 🌿 **Only MR firm in India** with large pool of agri qualified professionals.
- 🌿 An Indian company with in depth knowledge of complex Indian farming scenario.
- 🌿 Have presence across the length and width of the country along with language proficiency in major Indian languages.

NEED FOR A DEDICATED FARMER PANEL



Understanding Mammoth Task of the Panel



Q&Q contacted by one of the India's biggest Agriculture input producing company for setting up the farmer panel across South India as a pilot which contributes to 36% pesticide usage in the country.

BUSINESS OBJECTIVES

- In-depth understanding of the market – crop pattern including crop shifts, agri input usage and reasons thereof.
- Competition Brand Tracking
- Understanding market share (by volume and value) of the pesticide brands consumed in the area.
- Timing the promotional campaigns for various products in the portfolio.
- Understand the issues with regards to resistance development against pesticides.
- Identifying incorrect usage of the pesticides

Width and Depth of Panel in Pilot Stage

Farmer Panel spread across –

 **5** states

 **80** Territories

 **62** Districts

 **6400** farmers

 **4** physical visits to each farmer along with 8-10 tele calls, depending on crop duration

 **35** qualifier crops (Kharif crops– i.e. crops that are sowed and harvested in Kharif –June to Nov)

 **1** crop season (Kharif)

Sample Coverage :

State	Number of Territories	Farmers empaneled /Territory	Total Sample
AP	31	80	2480
Karnataka	20	80	1600
Telangana	15	80	1200
Tamilnadu	13	80	1040
Kerala	1	80	80
Total	80		6400

Manpower Involved (OPERATIONS TEAM): Operations team headed by one Project Operations In-charge

State	No. of Interviewers	No. of Supervisors	State Operations Manager	Operations Team/State
AP	31	6	1	38
Karnataka	20	4	1	25
Telangana	15	3	1	19
Tamilnadu	13	3	1	18
Kerala	1			
Total	80	16	4	100

Methodology of Setting up Panel



Identifying territory boundaries

Territories based on client's marketing structure

Few combinations –
 1 territory = 1 district
 1 territory = >1 district
 1 Territory = ½ or 1/3rd district

Each territory mapped on physical map of state and boundaries drawn



Recruitment of Operations team members

1 investigator recruited per territory

Each investigator have 80 farmers in his panel

Investigators recruited from current team + fresh recruitments

For 5 investigators, 1 supervisor assigned

Investigator - 3 years of experience in Agri MR
 Supervisor - 4 yrs experience



Designing Research tools and Software

A total of 11 QNRs designed to capture entire cropping season
 Diary for farmer to write his daily farming practice

Software designing –
 • Development of tablet based APP
 • Development of online web based portal

Procurement of Tablets/ SIMS and APP download

Dry run of APP for testing



Training of the team

3 level trainings organized –
 1. Training of research team + Operations head
 2. Training of State Operations Manager + Supervisors
 3. Training of investigators

First two trainings organized at HO (MUMBAI) – Training by Project in-charge

Investigator trainings organized for a batch of 15-20 investigator each across 5 locations –
 • AP – 2 locations
 • KAR / TEL / TN – 1 location each
 Training by State Operations manager



Recruitment of Panel

Recruitment started immediately after training along with Diary placement

Farmers recruited based on criteria set by client

Not more than 2-3 farmers recruited per village

10-15% buffer recruited over and above sample of 80/territory

Before final recruitment, back checks by supervisor to ensure right recruitment

Initial back checks done by research team

Calendar of Events

← APR-MAY →

Preparatory phase

- Development of Questionnaires, software
- Chalking out territories boundaries
- Recruitment of team
- Logistics Planning

← JUNE →

- Team Training
- Recruitment of Farmers

← JULY →

- Recruitment of Farmers
- 1st data collection visit
- Follow up call to empaneled farmer

← AUG - SEP →

- 2nd Data Collection visit
- Follow up calls
- Collection of secondary data from government
- Prelim report to client

← OCT - NOV →

- 3rd Data Collection visit
- Follow up calls

← DEC →

- Final Data collection visit

← NOV - JAN →

- Data analysis and reporting

Uniqueness of Panel by Q&Q



Largest farmer panel in India constituting 21000 farmers across 20 states and 160 districts



Not crop specific, covers all the crops grown by the farmer for commercial purpose. Each farmer in our panel has 2-3 crops on an average.



Empaneled farmer **visited** at least **4 times** in the entire season and not at the end of season



Multiple telecalls for health check – reducing drop outs



First farmer panel in India to **use technology (Tablets + web portal)** to collect information



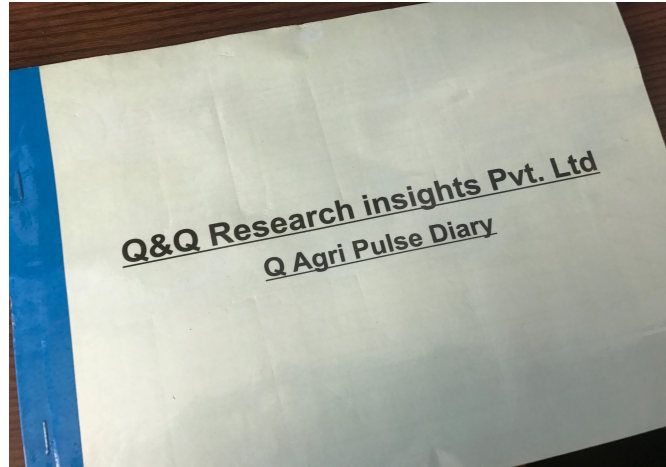
Two times reporting to client – aiding them to decide on marketing plan for oncoming crop stage



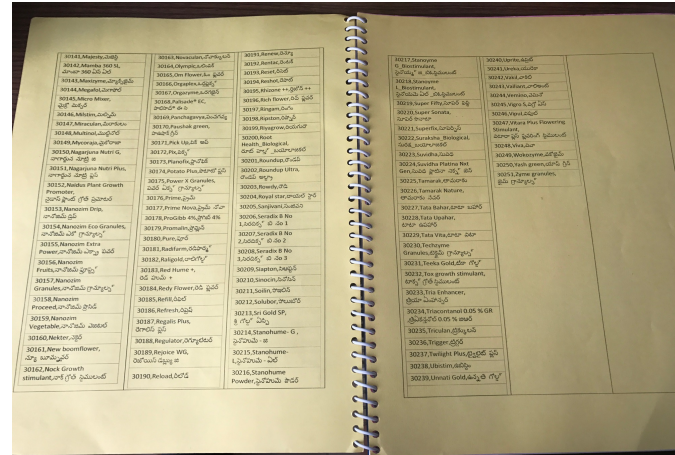
Farmers maintaining diary – noting down farming operation/activity carried out by him by date for all crops grown -
No information loss

Quick Glance through Software Used

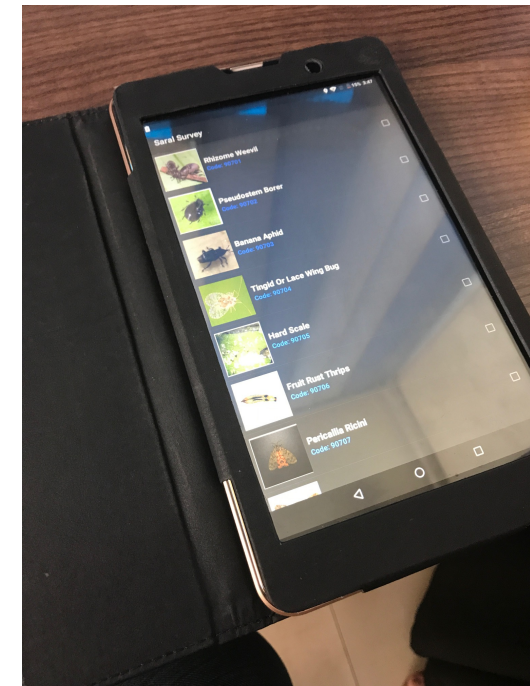
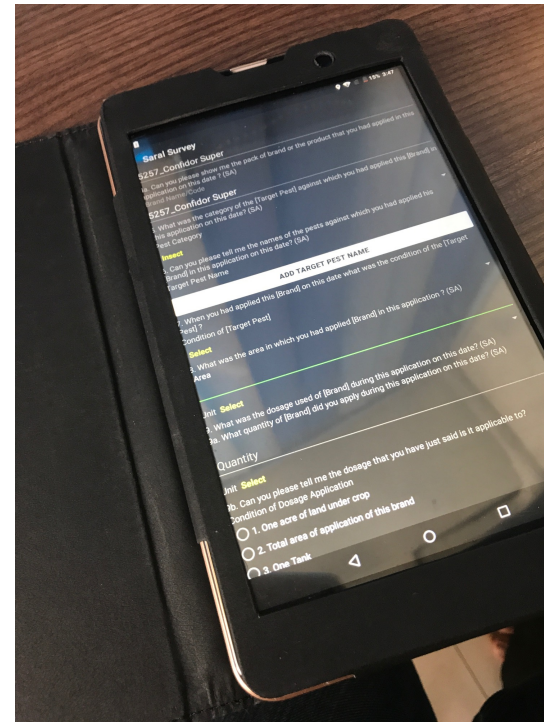
1 Farmer Dairy (placed with the farmer, to note down day to day farming activities)



2 Brand Code Books (given to investigator to locate brand names and enter by code in the tabs)



3 Tablets used for the study



Instructions for Filling the Diary

1. Entries in the diary has to be done daily.
2. Entries should be made in the diary, including, insecticides and growth regulators that are applied in farm.
3. Product application details done in the separate crop on the same day has to be entered separately on two different rows.
4. For the same date the farmer can have separate application that has separate entries to be done by entering same date in two separate rows.
5. All the pesticides used in a single acre to be entered as single entry, one product as main brand, and other products as mixing brands.
6. In case of application, check option which is applicable.

ID	Date of Application	Name of Crop	Name of Application	Product Type	Product Brand	Dosage	Unit (liters/ml)	Target Pest	Area Used	No. of rows used	Capacity of Tank (liters of water)	
1			1. Broadcast	Main Brand								
			2. Through Sprayer	Mixing Brand								
			3. Through Sprayer	Mixing Brand								
			4. Drenching	Mixing Brand								
2			1. Broadcast	Main Brand								
			2. Through Sprayer	Mixing Brand								
			3. Through Drip	Mixing Brand								
			4. Drenching	Mixing Brand								
3			1. Broadcast	Main Brand								
			2. Through Sprayer	Mixing Brand								
			3. Through Drip	Mixing Brand								
			4. Drenching	Mixing Brand								
4			1. Broadcast	Main Brand								
			2. Through Sprayer	Mixing Brand								
			3. Through Drip	Mixing Brand								
			4. Drenching	Mixing Brand								

1. RICE

10000	10001	10002	10003	10004	10005	10006	10007	10008	10009	10010	10011	10012	10013	10014	10015	10016	10017	10018	10019	10020
10000	10001	10002	10003	10004	10005	10006	10007	10008	10009	10010	10011	10012	10013	10014	10015	10016	10017	10018	10019	10020
10021	10022	10023	10024	10025	10026	10027	10028	10029	10030	10031	10032	10033	10034	10035	10036	10037	10038	10039	10040	10041
10042	10043	10044	10045	10046	10047	10048	10049	10050	10051	10052	10053	10054	10055	10056	10057	10058	10059	10060	10061	10062
10063	10064	10065	10066	10067	10068	10069	10070	10071	10072	10073	10074	10075	10076	10077	10078	10079	10080	10081	10082	10083
10084	10085	10086	10087	10088	10089	10090	10091	10092	10093	10094	10095	10096	10097	10098	10099	10100	10101	10102	10103	10104
10105	10106	10107	10108	10109	10110	10111	10112	10113	10114	10115	10116	10117	10118	10119	10120	10121	10122	10123	10124	10125
10126	10127	10128	10129	10130	10131	10132	10133	10134	10135	10136	10137	10138	10139	10140	10141	10142	10143	10144	10145	10146
10147	10148	10149	10150	10151	10152	10153	10154	10155	10156	10157	10158	10159	10160	10161	10162	10163	10164	10165	10166	10167
10168	10169	10170	10171	10172	10173	10174	10175	10176	10177	10178	10179	10180	10181	10182	10183	10184	10185	10186	10187	10188
10189	10190	10191	10192	10193	10194	10195	10196	10197	10198	10199	10200	10201	10202	10203	10204	10205	10206	10207	10208	10209
10210	10211	10212	10213	10214	10215	10216	10217	10218	10219	10220	10221	10222	10223	10224	10225	10226	10227	10228	10229	10230
10231	10232	10233	10234	10235	10236	10237	10238	10239	10240	10241	10242	10243	10244	10245	10246	10247	10248	10249	10250	10251
10252	10253	10254	10255	10256	10257	10258	10259	10260	10261	10262	10263	10264	10265	10266	10267	10268	10269	10270	10271	10272
10273	10274	10275	10276	10277	10278	10279	10280	10281	10282	10283	10284	10285	10286	10287	10288	10289	10290	10291	10292	10293
10294	10295	10296	10297	10298	10299	10300	10301	10302	10303	10304	10305	10306	10307	10308	10309	10310	10311	10312	10313	10314
10315	10316	10317	10318	10319	10320	10321	10322	10323	10324	10325	10326	10327	10328	10329	10330	10331	10332	10333	10334	10335
10336	10337	10338	10339	10340	10341	10342	10343	10344	10345	10346	10347	10348	10349	10350	10351	10352	10353	10354	10355	10356
10357	10358	10359	10360	10361	10362	10363	10364	10365	10366	10367	10368	10369	10370	10371	10372	10373	10374	10375	10376	10377
10378	10379	10380	10381	10382	10383	10384	10385	10386	10387	10388	10389	10390	10391	10392	10393	10394	10395	10396	10397	10398
10399	10400	10401	10402	10403	10404	10405	10406	10407	10408	10409	10410	10411	10412	10413	10414	10415	10416	10417	10418	10419
10420	10421	10422	10423	10424	10425	10426	10427	10428	10429	10430	10431	10432	10433	10434	10435	10436	10437	10438	10439	10440
10441	10442	10443	10444	10445	10446	10447	10448	10449	10450	10451	10452	10453	10454	10455	10456	10457	10458	10459	10460	10461
10462	10463	10464	10465	10466	10467	10468	10469	10470	10471	10472	10473	10474	10475	10476	10477	10478	10479	10480	10481	10482
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10777	10778	10779	10780	10781	10782	10783	10784	10785	10786	10787	10788	10789	10790	10791	10792	10793	10794	10795	10796	10797
10798	10799	10800	10801	10802	10803	10804	10805	10806	10807	10808	10809	10810	10811	10812	10813	10814	10815	10816	10817	10818
10819	10820	10821	10822	10823	10824	10825	10826	10827	10828	10829	10830	10831	10832	10833	10834	10835	10836	10837	10838	10839
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10861	10862	10863	10864	10865	10866	10867	10868	10869	10870	10871	10872	10873	10874	10875	10876	10877	10878	10879	10880	10881
10882	10883	10884	10885	10886	10887	10888	10889	10890	10891	10892	10893									

Quick Glance through Software Used

To ensure greater accuracy and precision the entire panel data is being managed on a Software designed specifically for the panel.

4 Complete details of all the farmers at one go- List of all the recruited farmers as well as terminated farmers can be viewed at one go in each of the territory

Terminated Status	Farmer ID	Status	District	Taluk	Region	Name	Address	Village	Village
NO	INDVAL1807	Active	Mysuru	Mysuru	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi
NO	INDVAL1802	Active	Mysuru	Mysuru	South Coastal	Chinnababu	Chinnababalu	chinnababu	chinnababu
NO	A7701840	Active Proden	Chikita	Tripura	South Coastal	Mudhavanababu	Madhavanababu	madhavanababu	madhavanababu
NO	A7701841	Active Proden	Chikita	Tripura	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi
NO	A7701804	Active Proden	Chikita	Tripura	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi
NO	TH04C1824	Terminated	Mysuru	Mysuru	South Coastal	Ramanarayana	patyilambadi	patyilambadi	patyilambadi
NO	A7701803	Active Proden	Chikita	Tripura	South Coastal	Rajuswamy	handhinadiga	handhinadiga	handhinadiga
NO	A7701802	Active Proden	Nalanda	Shakti	South Coastal	Chinnababu	Chinnababu	chinnababu	chinnababu
NO	A7701812	Active Proden	Nalanda	Shakti	South Coastal	Chinnababu	Chinnababu	chinnababu	chinnababu
NO	A7701805	Active Proden	Chikita	Tripura	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi
NO	A7701878	Active Proden	Nalanda	Shakti	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi
NO	A7701873	Active Proden	Nalanda	Shakti	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi
NO	A7701872	Active Proden	Nalanda	Shakti	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi
NO	A7701843	Active Proden	Nalanda	Shakti	South Coastal	Indrababu	gannurthipudi	indrababu	gannurthipudi

Farmer ID	Farmer Name	Finished	Assigned	Unassigned	Total
KADBG12610	ngappa c suraman	Spray 1, Screener 1, Bottle Purc...			Spray 1, Screener 1, Bottle Purchase 1, Seed 1
KARA13361	venuh	Screener 1			Screener 1
KARA13362	mahadevappa	Screener 1			Screener 1
KARA13364	arpappa	Screener 1			Screener 1
TNCAL13160	shahar	Screener 1			Screener 1
KABAG11541	mallappa yanikanawode	Spray 1, Screener 1, Bottle Purc...			Spray 1, Screener 1, Bottle Purchase 1, Seed 1
KABAG11543	kabeedu	Spray 1, Screener 1, Bottle Purc...			Spray 1, Screener 1, Bottle Purchase 1, Seed 1
KARA13360	shannappa	Screener 1			Screener 1
TNVL03708	njanthan s/o kunjithapatham	Screener 1	Seed 1, Spray 1, Bottle Purchas...		Spray 1, Screener 1, Bottle Purchase 1, Seed 1
TNMA02622	devamandhi	Screener 1	Seed 1, Spray 1, Bottle Purchas...		Spray 1, Screener 1, Bottle Purchase 1, Seed 1
APELL04050	chashok	Screener 1	Seed 1, Spray 1, Bottle Purchas...		Spray 1, Screener 1, Bottle Purchase 1, Seed 1
TNTRI13374	NAGARAJAN S/O RAMASAMY	Screener 1			Screener 1
TNVL05734	Ravi s/o ngappal	Screener 1	Seed 1, Spray 1, Bottle Purchas...		Spray 1, Screener 1, Bottle Purchase 1, Seed 1
TNCAL13149	karunakaran	Screener 1	Seed 1, Spray 1, Bottle Purchas...		Spray 1, Screener 1, Bottle Purchase 1, Seed 1
KARA13358	basswanji	Screener 1			Screener 1
KARA13357	ramayya	Screener 1			Screener 1

5 Tracking of details captured from each respondent- Software keeps a track of number questionnaires canvassed to each of the respondent and number of questionnaires pending; thereby ensuring that no information is missed from any of the farmer

Quick Glance through Software Used

6

Viewing of the QNR near LIVE – As soon as the data is submitted, all the QNRs are viewable for scrutiny and backcheck. Researchers are able to check data within 24 hours of collection

karab Sereal Survey Powered By CloZ

Device Approval | Design | Device | Manage Task | Summary Data | Geo | Settings | HI QQR1_HO

Screener Data

All Tasks

- Seed Tasks
- Spray Tasks
- Bottle Purchase Tasks
- Pest Tasks
- Promotional Tasks
- Harvest Tasks
- Nutrition Tasks
- Cost of Cultivation Tasks

Seed Form

A. Crop Name
Ans. Rice

1. Please let me know how many varieties of this crop did you use/plan to use in this Kharif season 2017 ?
No. of Varieties of this Crop : 1 [See Details](#)

Seed Information

1a What all Varieties of this crop do you grow?
Ans. 103101_BPT-3291

2 Which of the following seed characteristics or traits apply to this variety?
Ans. OPV/Research Variety

3 How much area did you plant or plan to plant in this Kharif season of 2017 for this variety?
Ans. Seed Area: : 1
Seed Unit: : Acre

3a Unit of area?
Ans. Acre

karab Sereal Survey Powered By CloZ

Device Approval | Design | Device | Manage Task | Summary Data | Geo | Settings | HI QQR1_HO

Screener Data

All Tasks

- Seed Tasks
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- Bottle Purchase Tasks
- Pest Tasks
- Promotional Tasks
- Harvest Tasks
- Nutrition Tasks
- Cost of Cultivation Tasks

Edit Report Data

ID KADAV00274	State Karnataka	District No Data	Territory Davangere
CBU South Central	Name of the Respondent basavanagouda	Address basavanagouda	Taluka Name davanagere
Village mudahadadi	Mobile No. 7760053352	Tab ID KA071	Data Sent Time 20-09-2017 01:52 PM
Data Received Time 20-09-2017 01:52 PM	A. Name of Crop Rice	B. Carried out any application or not Yes	Q1. CROP1_Q1_Application Date 5/8/2017
Q2. CROP1_Q2_No of Application 1	CROP1_Q2A_Application No. 1 1	CROP1_Q3_Category Pesticide	CROP1_Q4_Brand Name/Code 5373_Ferterra
Other Brand_Name No Data	CROP1_Q4A_Brand Name/Code mentioned on the pack 5373_Ferterra	Other Brand_Name No Data	CROP1_Q5_Pest Category Insect
CROP1_Q6_Pest 1 90324_Leaf Folder	CROP1_Q6_Pest 2 No Data	CROP1_Q6_Pest 3 No Data	CROP1_Q6_Pest 4 No Data
CROP1_Q6_Pest Others No Data	CROP1_Q6_Pest Others name No Data	CROP1_Q7_Condition I had applied [brand] even before the appearance of pest	CROP1_Q8_Area Applied 1
CROP1_Q8_Area Applied Unit Acre	CROP1_Q9_Dosage 4	CROP1_Q9A_Dosage Unit kg	CROP1_Q9b_dosage applicable to One acre of land under crop
CROP1_Q9C_No of Tanks No Data	CROP1_Q10_Method of Application Broadcast	CROP1_Q11_Volume of Water No Data	CROP1_Q11A_Condition of Water Application -1
CROP1_Q11B_No of tanks used in one acre No Data	CROP1_Q11C_Tanks Capacity No Data	CROP1_Q14815_Target Pest Name 1 90324_Leaf Folder	CROP1_Q14_Duration of Control_1 5

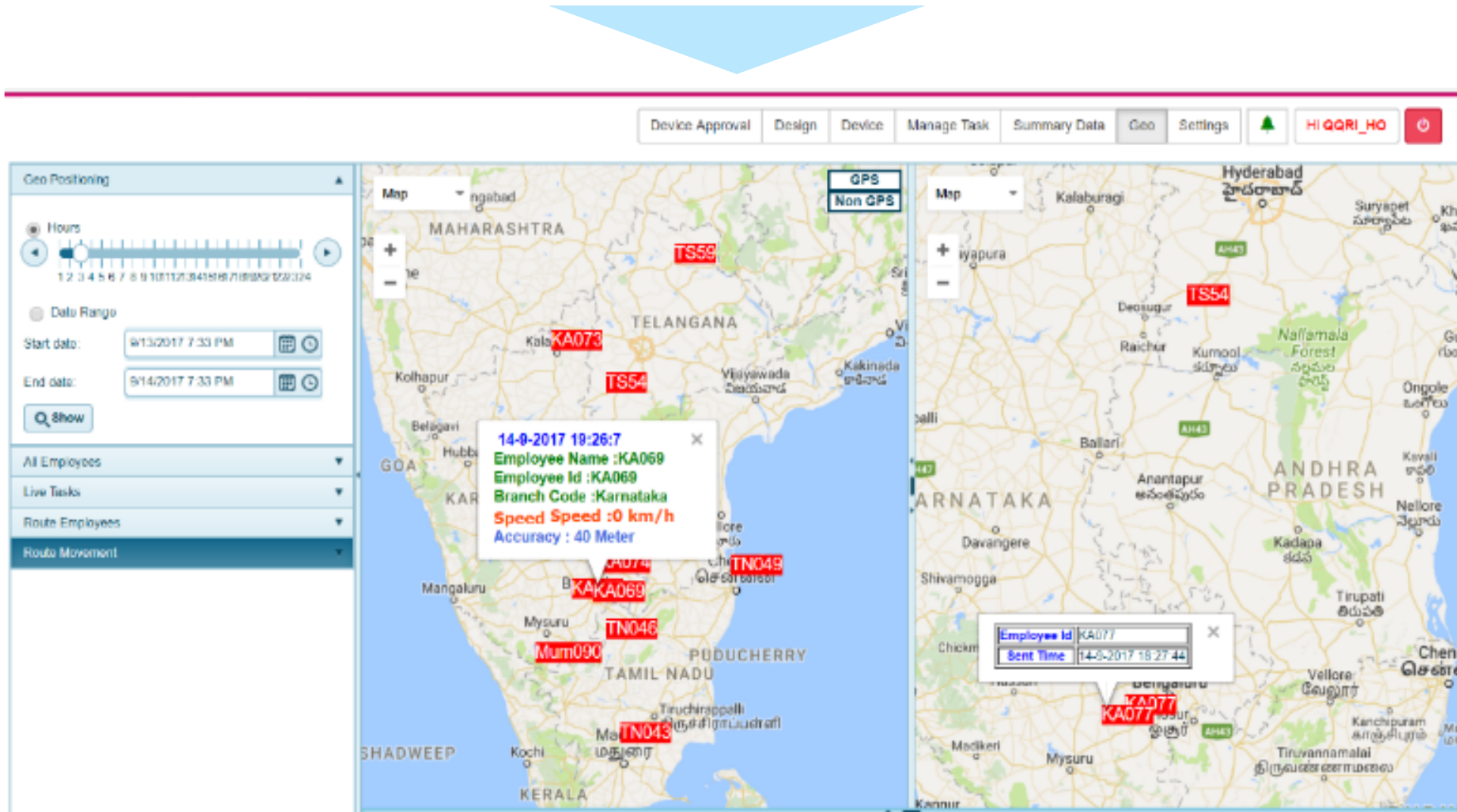
7

EDITING OF QNR – Once the QNR is submitted our quality team is able to view the data and get it backchecked. If there is any discrepancy in the data, it can be edited on the software immediately

Features of Software

8

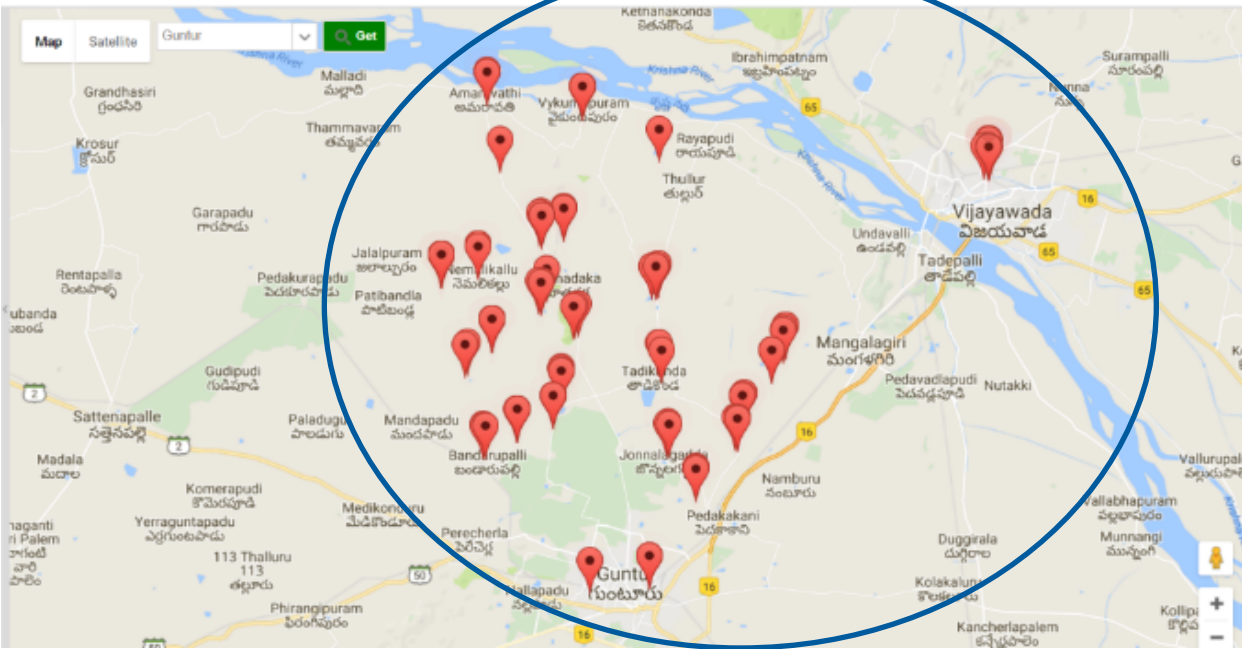
Real time Geo-tagging of the Investigators- Helps in tracking the investigators in the field through tabs, thus ensuring the authenticity of the data collected



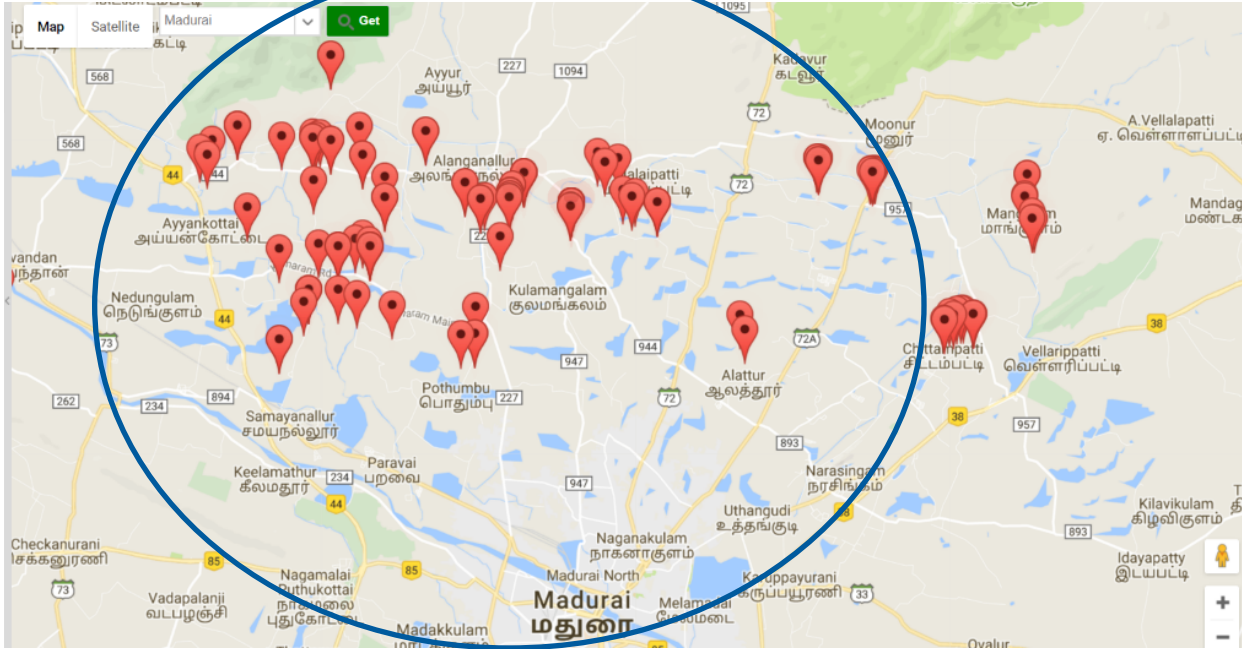
Features of Software

9

Real time Geo-tagging of the recruited Farmers- Helps in tracking the geographical spread of the recruited farmers in each territory



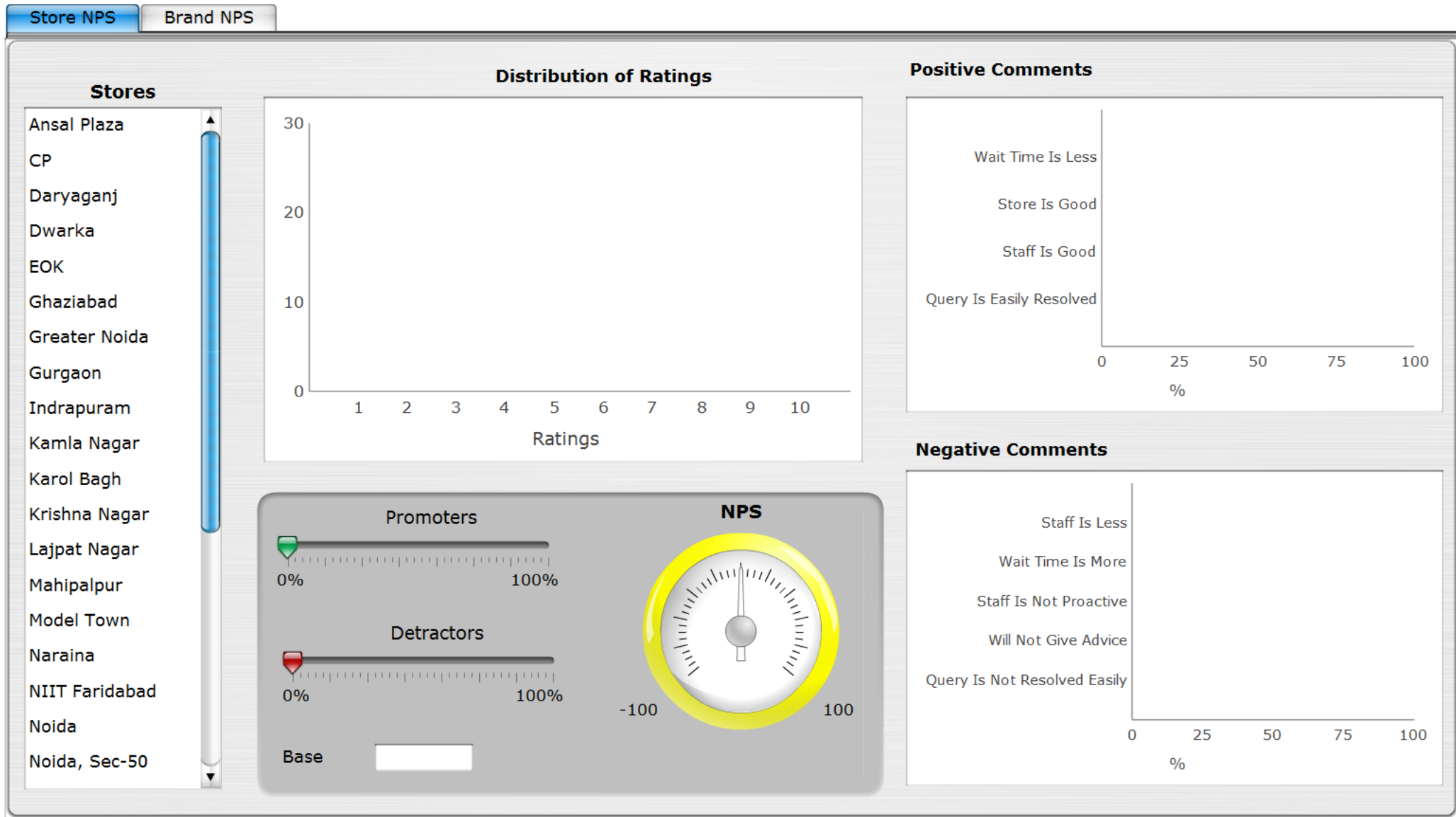
Recruitment of Farmers in Guntur Territory



Recruitment of Farmers in Madurai Rural Territory



Reporting of Data



1. Enter the query

	Total	18-24 Years	25-29 Years	30-34 Years	35-44 Years	45-54 Years	55-90 Years
Weighted Base	6166	1125	1625	1191	1707	472	46
Single	16.1	40.9	20.0	7.9	4.4	6.0	21.4
Married	81.1	57.9	78.7	89.6	91.8	85.7	70.4
Divorced	2.8	1.3	1.3	2.5	3.8	8.3	8.2






2. Analyzed tables of the query- can switch type of output needed i.e. %, average, counts etc.

3. Output of the tables in form of graphs (editable graphs)



Challenges Faced

Key Challenges

-  **Finding an ideal software partner** – it was difficult task for us to find a software partner, who would understand the nuisance of market research along with agriculture/ or having worked in rural India.
-  **Software development** – Ensuring all the eventualities are taken care of as in case anything is missed and the app has to be re-installed in the tablet – investigator will not be able to do so in field (given limited internet connection in rural India)
-  **Recruitment of investigators having knowledge of local dialects** – Within the state, there are several dialects of the language spoken by farmer with different accents – hence investigator had to be from the area who can understand these dialects.
-  **Collection of information for all the crops grown by farmer** - On an avg. each farmer is growing 2-3 crops and each crop has a different cropping calendar. Keeping a track on what is happening to each crop at a given point of time is a mammoth task. Thus ensuring farmer's engagement for a period of 6 months for all the crops that he grows is a challenge.
-  Ensuring regular Diary filling by farmer, for each crop, which means farmers could have 4 crops, and he would need to fill in dairies for each of 4 crops separately. This a mammoth task for any respondent, and incentive cannot be the sole motivator.



Training of the team - Multiple trainings had to be planned at multiple locations and at different interval of time. Minimum 2 trainings conducted with a set of investigator – one before the start of the study and second mid term training.



Getting data from government sources – this is a very difficult task, since not all data is recorded in a disciplined manner. Further government sources are not willing to share this data very easily. Government websites could have data which is as old as 2-3 years.



Future Scope of Panel

