IMPACT ASSESSMENT STUDY

ON

TOILETS CONSTRUCTED IN GOVT. SCHOOLS OF ANDHRA PRADESH UNDER THE

SWACHH BHARAT SWACHH VIDYALAY ABHIYAN OF POWER FINANCE CORPORATION LIMTED.

March 2020

Submitted to:

POWER FINANCE CORPORATION LIMITED

INDO-GERMAN INSTITUTE OF ADVANCED TECHNOLOGY

(An Indo German Technical Cooperaiton)

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Impact Assessment Study
on
Toilets constructed in
Govt. Schools of Andhra Pradesh under
"Swachh Bharat Swachh Vidyalay Abhiyan" of PFC

Ref No.: **IGIAT/PFC/IMPACT REPORT/2020/01**

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Authorized Sign

Director – IGIAT . Date

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ANNEXURE

S. No.	Description	No.
1	Book let of Original questionnaire formats duly filled and signed by school authorities	Vol - 1
2	Book let consisting Photographs of all the 572 schools during the impact study	Vol - 2

1.0 ACKNOWLEDGEMENTS

We express our sincere thanks to **Power Finance Corporation Limited, New Delhi** for providing us with the opportunity to conduct Impact Assessment Study on the Toilets constructed in Government Schools of Andhra Pradesh under "Swachh Bharat Swachh Vidyalay Abhiyan". We also express our humble gratitude to Shri R. Murahari, Executive Director-CSR,PFC for his valuable inputs for the outcome of this report.

The report has been formulated based on findings of field surveys, which were conducted in 13 Districts of Andhra Pradesh where, these toilets were constructed in the Government Schools under Swachh Bharat Swachh Vidyalay Abhiyan of Power Finance Corporation Ltd., New Delhi.

These toilets were constructed mainly to benefit the students pursuing their academic studies in Primary, Upper Primary and High School levels of Government Schools and inculcate hygienic standards among the beneficiary group.

I would like to gratefully acknowledge the time and generous assistance provided by various levels of government officials and school staff including the office of the respective School Principals, school students (the beneficiaries) and other community members. Their assistance and participation is very much appreciated.

Finally we hope that this report enables in contributing further financial assistance particularly in the rural areas for the enhancement of other necessary infrastructure, provision of water supply and proper drainages & disposal system towards the better outcome of the Abhiyan.

Once again we extend our sincere gratitude and thanks to **Power Finance Corporation Limited, New Delhi** for their initiative and support provided in this Swachh Bharat Swachh Vidyalay Abhiyan.

B Vinod Kumar
Director, IGIAT

2.0 EXECUTIVE SUMMARY

The "Swachh Bharat Swachh Vidyalay Abhiyan" project by Power Finance Corporation in Government Schools of Andhra Pradesh began in 2014.

A project to conduct **"Impact Assessment Study on the Toilets constructed in Govt. Schools of 13 districts in Andhra Pradesh"** was awarded to Indo German Institute of Advanced Technology, Visakhapatnam through LOA No. 02:14:CSR&SD:SBSV_Impact Study, dated 9th Oct. 2019. The study was initiated on 7th Jan. 2020 on completion of necessary instructions mentioned in LOA.

The first phase of the study was conducted during 7th - 9th January 2020 and 22nd – 25th January 2020 in the Districts of Visakhapatnam, Vizianagaram, Srikakulam and East Godavari of Zone 1.

Subsequently, the second phase of the study was initiated from 29th January 2020 in the Districts of West Godavari, Krishna & Guntur of Zone 2, Prakasam, Nellore & Chittoor of Zone 3 & Kadapa, Anantapur & Kurnool of Zone 4 and concluded on 18th Feb. 2020.

During the study, a total number of 572 schools in 230 blocks within the 13 districts of Andhra Pradesh comprising of Zone 1, 2, 3 and 4.

The objective of the study was to understand the outcomes of the project through physical verification of infrastructure and collection of feedback from the beneficiaries for the constructed toilets by the following measures such as its utilization, quality of construction, hygienic conditions, increase in the attendance after construction of toilets and the reach of the message within the students and the society under the "Swachh Bharat Swachh Vidyalay Abhiyan".

Further, the study was to provide a qualitative and quantitative assessment and analysis of the processes and results of the project as per project objectives. The technique used in the data collection included physical verification of the constructed toilets, its utilization, available facilities, hygienic conditions and interaction with the students and Staff members of the School.

The study concluded that the implementation of the project was quite effective and it was observed that the framework was set in time lines, geographical distribution covering almost all parts of the respective District (blocks in East, West, North and South region of the district). The overall impact of the programme was found to be satisfactory and the impact of the programme has enhanced the social conditions by large in terms of hygienic standards both at School and Society levels. This Abhiyan has brought a lot of transformation within the ideology of the school children, subsequently, has made an impact on the strength of the school, allowing participation of more number of girl child and enhanced the hygienic standards within the students of the school. In parallel this initiative enlightened the citizens of the Society towards importance of usage of toilets and construction of the same within their household.

3.0 INTRODUCTION

The "Swachh Bharat Swachh Vidyalay Abhiyan" Project was designed to construct toilets in Govt. of Schools of Andhra Pradesh State to meet the basic need of the students studying in Govt. Schools and to enhance the hygienic conditions within these schools. Most of the students studying in the Govt. Schools belongs to the disadvantaged group of the Society especially from Below Poverty Line, who have been forced to drop out of schools largely by circumstances beyond their own control.

The objective of the project, therefore, was to provide hygienic sanitation conditions to the school going children for both male and female candidates to minimize the school dropouts and illness caused due to the then existing sanitation conditions at Govt. Schools.

The time given to this assessment study was limited to 45 days. The study tried to capture the essence of project impacts within the given period. This report is the outcome of the stud, enabling to draw lessons from the project to enable Power Finance Corporation at the national level to provide options for the future development of "Swachh Bharat Swachh Vidyalay Abhiyan" and to identify areas where the improvement would be necessary to enhance its impact.

4.0 BACKGROUND

There are a large number of young adolescents in remote and rural areas in our country who do not complete their school education, mainly due to imbalanced economic development and the disparities in the infrastructure, hygienic and sanitation facilities in the educational system.

The "Swachh Bharat Swachh Vidyalay Abhiyan" project initiated by Govt. of India and assisted by PFC provided opportunities for school children to gain healthy environment and reaching basic facilities like proper class rooms, curriculum, teaching staff and much more important absolute hygienic facilities within their schools not only in urban but also available in rural and remote hamlets, where these facilities are hardly available.

Power Finance Corporation under its CSR activity contributed towards construction of toilets across the country under this abhiyan and to analyse the impact of their contribution towards the society under "Swachh Bharat Swachh Vidyalay Abhiyan" awarded IGIAT to conduct "Impact Assessment Study on the Toilets constructed in Govt. Schools in Andhra Pradesh" through LOA No. 02:14:CSR&SD:SBSV_Impact Study, dated 9th Oct. 2019.

5.0 OBJECTIVES OF THE PROJECT

- The key objective of the project was to ensure that every school in Andhra Pradesh has a set of functioning and well maintained hygienic sanitation facilities.
- Hygienic sanitation in schools refers to a combination of technical and human development components that are necessary to produce a healthy school environment and to develop appropriate health and hygienic behaviours.
- The technical components include hand washing, toilet and cleanliness facilities in school compound for the use of children and teachers.
- School sanitation and hygiene depends on a process of capacity enhancement of teachers, community members and educational administrators.
- Sanitation and hygiene in school aims to make a visible impact on the health and hygiene of children through improvement in their health and hygiene practices and also of their families and communities.
- The aim of the project was also to ensure that every parent make their child attend the school and has access to proper hygienic sanitation facilities during pursuance of formal education.

5.1 Purpose of the impact assessment

To assess the extent to which:

- It has enabled school children to continue their education through formal means
- Participation of children, especially girls participated in formal education with the facilities provided for hygienic sanitation
- The benefit of sanitation and hygiene to school children and its implications within their family members and community

6.0 METHODOLOGY OF THE STUDY

6.1 QUALITATIVE ASSESSMENT:

The assessment was based on open-ended questionnaire designed to target the school administration, school students (beneficiaries), cleaning staff and the community

The questions that were prepared for stakeholders, namely school staff, children and community

to understand knowledge gained by the target group on issues related to:

- Quality of construction of toilet
- Benefit of water sanitation and hygiene
- Operation and maintenance
- Behavior change activities
- Enhanced capacities

In order to make it easy for the surveyor and the beneficiaries and to get an even feedback for analysis, a structured QUESTIONAIRE was prepared and was used at all the schools to get the data from the interaction with the beneficiaries. The questionnaires were duly signed by the school administration after completion of the survey for authentication purpose. Please find below the questionnaire used for the survey purpose.

Interactions were held with a smaller group of male and especially girls students to obtain greater insight into their personal experiences and the manner in which the project had influenced their attitude towards the schools. Questions were designed to raise basic issues of the assessment. Qualitative data was supplemented with quantitative data on the construction of the toilets, over view on the attendance of the children and facilities provided in line of water, cleanliness and accessibility of the toilets.

Documentation of group discussions was done through photographs and written notes, the facilities were photographed for documentation purpose.

IMPACT STUDY ON
CONSTRUCTION OF TOILETS CONSTRUCTED IN GOVT. SCHOOLS OF ANDHRA PRADESH UNDER SWACHH BHARAT SWACHH VIDYALAY ABHIYAN OF M/S POWER FINANCE CORPORATION, NEW DELHI

Basic Information

- District : Block : Village:
- Name of the school: .....
- School Code: ..... School Description: Only Girls/ Only Boys/Co-education
- Type of the Toilet: Boys: Conventional / Prefabricated
  Girls: Conventional / Prefabricated
- Number of Toilets Available: Boys: Urinals: Lavatory: Hand Wash:
  Girls: Urinals: Lavatory: Hand Wash:

Functional Status:

- Number of Toilets in working condition: Boys: Urinals: Lavatory: Hand Wash:
  Girls: Urinals: Lavatory: Hand Wash:
- Availability of Water in Toilets: Boys: Urinals: Lavatory: Hand Wash:
  Girls: Urinals: Lavatory: Hand Wash:
- Source of water : Bore-well / Hand-pump / Public Water Supply
- Remarks if any: _____

Establishment of facility:	Dissatisfied	Least Satisfied	Satisfied	Well satisfied	Most Satisfied
• Quality of construction:	1	2	3	4	5
• Quality of Plumbing work:	1	2	3	4	5
• Quality of Electrical work:	1	2	3	4	5

Disposal facilities

- Construction of Septic Tank / Soak Pit — Septic Tank (Yes/No) Soak Pit (Yes/No)
- Capacity of the septic tank is sufficient? — Yes/No
- Sewer drain connected to — open sewer drain / UGD / Not available / on land

Maintenance of Toilets

- Availability of sufficient water facility — Nil / Partial / Moderate / Adequate
- Availability of cleaning staff — Nil / On Request / Regular
- Hygienic Standards — Nil / Can be better / Moderate / Good
- Cleaning of Septic tank/Soak Pit — Never / Not Required / Not Available

Affordability

Do you agree that your school needs a major upgrade to be able to maintain the toilets more effectively in the areas of?

- Cleaning Items procurement
- Water supply infrastructure
- Electricity supply
- Cleaning staff availability

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IMPACT STUDY ON
CONSTRUCTION OF TOILETS CONSTRUCTED IN GOVT. SCHOOLS OF ANDHRA PRADESH UNDER SWACHH BHARAT SWACHH VIDYALAY ABHIYAN OF M/S POWER FINANCE CORPORATION, NEW DELHI

POWER FINANCE CORPORATION LIMITED

Socio Impact Assessment

- Has your school become cleaner after implementation of toilet facility:
  1. No Impact 2. Somewhat Cleaner 3. Quite Clean
  Your scale of rating between 1 to 5 .....
- Have these toilets made an impact in the increase of school attendance - Boys
  1. No Impact 2. Somewhat better 3. Enhanced
  Your scale of rating between 1 to 5 .....
- Have these toilets made an impact in the increase of school attendance - Girls
  2. No Impact 2. Somewhat better 3. Enhanced
  Your scale of rating between 1 to 5 .....
- Has the change of attitude and civic sense orientation observed within students
  1. No Impact 2. Somewhat better 3. Enhanced
  Your scale of rating between 1 to 5 .....
- Has this practice brought any development in social behaviour of the students
  1. No Impact 2. Somewhat better 3. Enhanced
  Your scale of rating between 1 to 5 .....
- Has implementation of these toilets helped in spreading the message of usage of toilets and sense of Swachhtha within other family members of student
  1. No Impact 2. Somewhat better 3. Enhanced
  Your scale of rating between 1 to 5 .....
- Has implementation of these toilets helped in spreading the message of usage of toilets and sense of hygiene within other citizens of the Village
  1. No Impact 2. Somewhat better 3. Enhanced
  Your scale of rating between 1 to 5 .....

Any other Remarks: .....

.....

.....

Date: **Signature of School Principal**

Check-List:

1) Snapshots of School Name Board
2) Interaction with Principal/Head Master
3) Interaction with staff
4) Interaction with students
5) Snapshots of Toilet covering all aspects (Urinals, Lavatory, Hand-Wash, Water supply connections)
6) Snapshot of Septic Tank/Soak pit

Information Collected By:

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Photo 001: Format of Questionnaire used for the Survey

6.2 QUANTITATIVE ASSESSMENT:

Keeping in view the extent of area to be covered in specified time of 45 days along with the report preparation, the following methodology was adopted to cover schools from maximum number of Blocks in each district to get an even feedback across the state of Andhra Pradesh..

The main purpose of the survey was to carry out qualitative and quantitative analysis of parameters as per project objectives. The study aimed to cover the entire geographical locations in the 13 districts of Andhra Pradesh where the toilets were constructed, since to cover entire 7,827 would take more time, it was decided to cover 480 schools randomly out of 7,827 toilets. Random method was used to select 30-40 toilets in each district covering all the geographical spread of the district i. e. Each, West, North and South directions. Subsequently the 13 districts were divided into 4 zones comprising of 3 to 4 districts in each zone

Three teams consisting of two surveyors from each team were assigned the four zones with specified target to cover all the geographical locations of 13 districts. The number of toilets to be covered in each district were calculated based on the number of toilets constructed utilising PFC CSR funds in each district simultaneously. The selection of number of toilets is as given in the table below:

TABLE SHOWING DISTRICT/MANDAL WISE GIVEN BY PFC

S.No	District	Zone	No.of Toilets	No.of Mandals	Total No.of Toilets in Zone	Target per zone
1	Srikakulam	1	595	37	2069	120
2	Vizianagaram		1284	34		
3	East Godavari		123	23		
4	Visakhapatnam		67	21		
5	West Godavari	2	181	12	1553	120
6	Guntur		894	52		
7	Krishna		478	43		
8	Prakasham	3	926	58	1610	120
9	Nellore		292	23		
10	Chittoor		392	53		
11	Kadapa	4	493	84	2595	120
12	Ananthapur		1746	64		
13	Kurnool		356	41		
		Total	**7827**	**545**		**480**

Table 001: Details of no. of Districts & Blocks of the Survey

TABLE SHOWING DISTRICT/MANDAL WISE DONE BY IGIAT

S.No	District	Zone	No.of Toilets	No.of Blocks	PFC Target per zone	Target per zone done by IGIAT
1	Srikakulam	1	49	21	120	197
2	Vizianagaram		116	21		
3	East Godavari		23	11		
4	Visakhapatnam		9	4		
5	West Godavari	2	15	8	120	127
6	Guntur		71	26		
7	Krishna		41	24		
8	Prakasham	3	70	24	120	122
9	Nellore		22	12		
10	Chittoor		30	27		
11	Kadapa	4	31	15	120	126
12	Ananthapur		73	26		
13	Kurnool		22	11		
		Total	**572**	**230**	**480**	**572**

Table 002: Details of no. of Districts & Blocks covered in survey

Based on the above distribution each team was assigned the particular task to complete the survey within 25 days.

- Team one comprising of Mr. G. Nagaraju & Mr. Teja covered a total distance of 5036 km in 23 days to cover 228 schools in 78 Blocks of 5 districts.

Districts	Schools	Blocks	No. of Days Travelled	Total Kms
Vizianagaram	81	13	7	1402
Krishna	41	24	4	997
Prakasam	70	24	7	1462
Kurnool	22	11	3	710
Ananthapur	14	6	2	465
	228	**78**	**23**	**5036**

Table 003: Details of Schools, Blocks, Time & Distance covered by Survey Team-1

Photo 002: Survey Team-1 interacting with School Management & Students

- Team two comprising of Mr. Kesavarao & Mr. Bhaskar Srinivas covered a total distance of 4483 km in 19 days to cover 134 schools in 78 Blocks of 5 districts.

Districts	Schools	Blocks	No. of Days Travelled	Total Kms
Srikakulam	20	17	3	913
East Godavari	23	11	3	757
West Godavari	15	8	3	522
Chittoor	30	27	5	1447
Ananthapur	46	15	5	844
	134	**78**	**19**	**4483**

Table-004: Details of Schools, Blocks, Time & Distance covered by Survey Team-2

Photo 003: Survey Team-2 interacting with School Management & Students

- Team three comprising of Mr. B. Madhusudhan & Mr. Murali covered a total distance of 5173 km in 22 days to cover 210 schools in 74 Blocks of 7 disricts.

Districts	Schools	Blocks	No. of Days Travelled	Total Kms
Srikakulam	29	4	3	588
Vizianagaram	35	8	3	835
Guntur	71	26	6	1480
Nellore	22	12	3	756
Kadapa	31	15	4	838
Ananthapur	13	5	2	466
Visakhapatnam	9	4	1	210
	210	**74**	**22**	**5173**

Table-005: Details of Schools, Blocks, Time & Distance covered by Survey Team-3




Photo 004: Survey Team-3 Interacting with School Management & Students

Based on the above methodology the first phase of the study was conducted during 7th - 9th January 2020 and 22nd – 25th January 2020 in the Districts of Visakhapatnam, Vizianagaram, Srikakulam and East Godavari of Zone 1.

Subsequently, the second phase of the study was initiated from 29th January 2020 in the Districts of West Godavari, Krishna & Guntur of Zone 2, Prakasam, Nellore & Chittoor of Zone 3 & Kadapa, Anantapur & Kurnool of Zone 4 and concluded on 18th Feb. 2020.

Photographs of toilets constructed in conventional model:






Photo 005: Sample photo of Toilet constructed in conventional method

Photographs of toilets constructed in prefabricated model:

Photo 006: Sample photo of Prefabricated Toilet

Water Facility




Photo 007: Sample photo showing available water facility for usage

Some of the photographs about maintenance of toilets




Photo 008: Sample photo showing maintenance of Toilets

Disposal Facilities available in schools

Photo 009: Sample photo showing disposal of sewage from toilets

7.0 OUTLINE OF MAIN ACTIVITIES

The first phase of the study was conducted during 7th - 9th January 2020 and 22nd – 25th January 2020 in the Districts of Visakhapatnam, Vizianagaram, Srikakulam and East Godavari of Zone 1.

Subsequently, the second phase of the study was initiated from 29th January 2020 in the Districts of West Godavari, Krishna & Guntur of Zone 2, Prakasam, Nellore & Chittoor of Zone 3 & Kadapa, Anantapuram & Kurnool of Zone 4 and concluded on 18th Feb. 2020.

Out of the 7827 toilets constructed in Government schools in 545 Blocks in 13 districts of Andhra Pradesh, a total of 572 schools from 230 Blocks have been covered for the collection of data to be utilized in the study for Impact of Toilet construction on the society as a whole. 7.5 % schools have been covered from 43% of Blocks in the 13 districts of Andhra Pradesh.

7.1 Geographical Distribution ZONE-1

The Zone-1 consists of four districts as given in the below table, out of 115 Blocks in the four districts comprising of 2069 toilets 197 toilets have been covered from 57 Blocks. 10% of the toilets were covered while keeping the main objective of covering the entire district the 49.5 % of Blocks were covered from the four districts.

S. No	District	Blocks covered/District	No. of Schools / Toilets Covered
1	Srikakulam	21	49
2	Vizianagaram	21	116
3	Visakhapatnam	4	9
4	East Godavari	11	23
	Total	**57**	**197**

Table 006: Data showing Blocks and schools covered in Zone-1

7.1.1 Srikakulam District:

Below is the district map of Srikakulam showing the schools covered under their respective Blocks, for clear understating the Blocks have been higligthened on the map for easy reference. A total of 49 schools were covered in 21 Blocks of this districts, a total of 21 Blocks

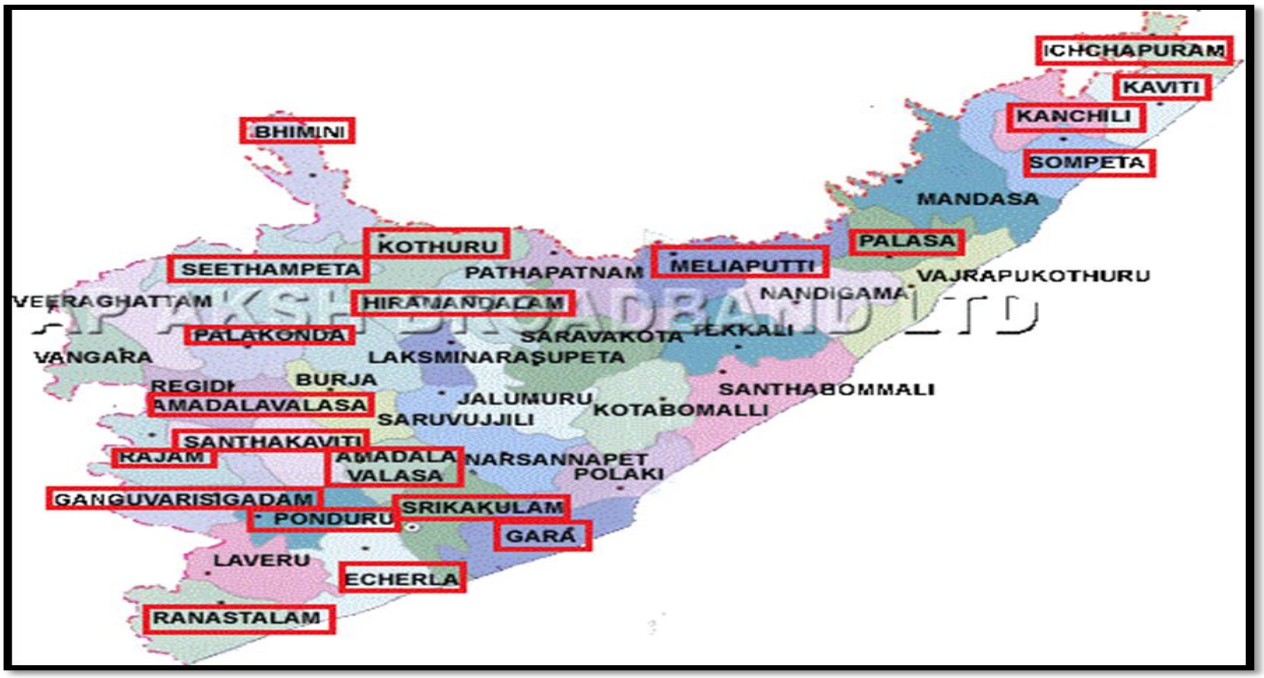


Photo 010: District map of Srikakulam showing Blocks covered

7.1.2 Vizianagaram District:

Below is the district map of Vizianagaram showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 116 schools were covered in 21 Blocks of this districts.

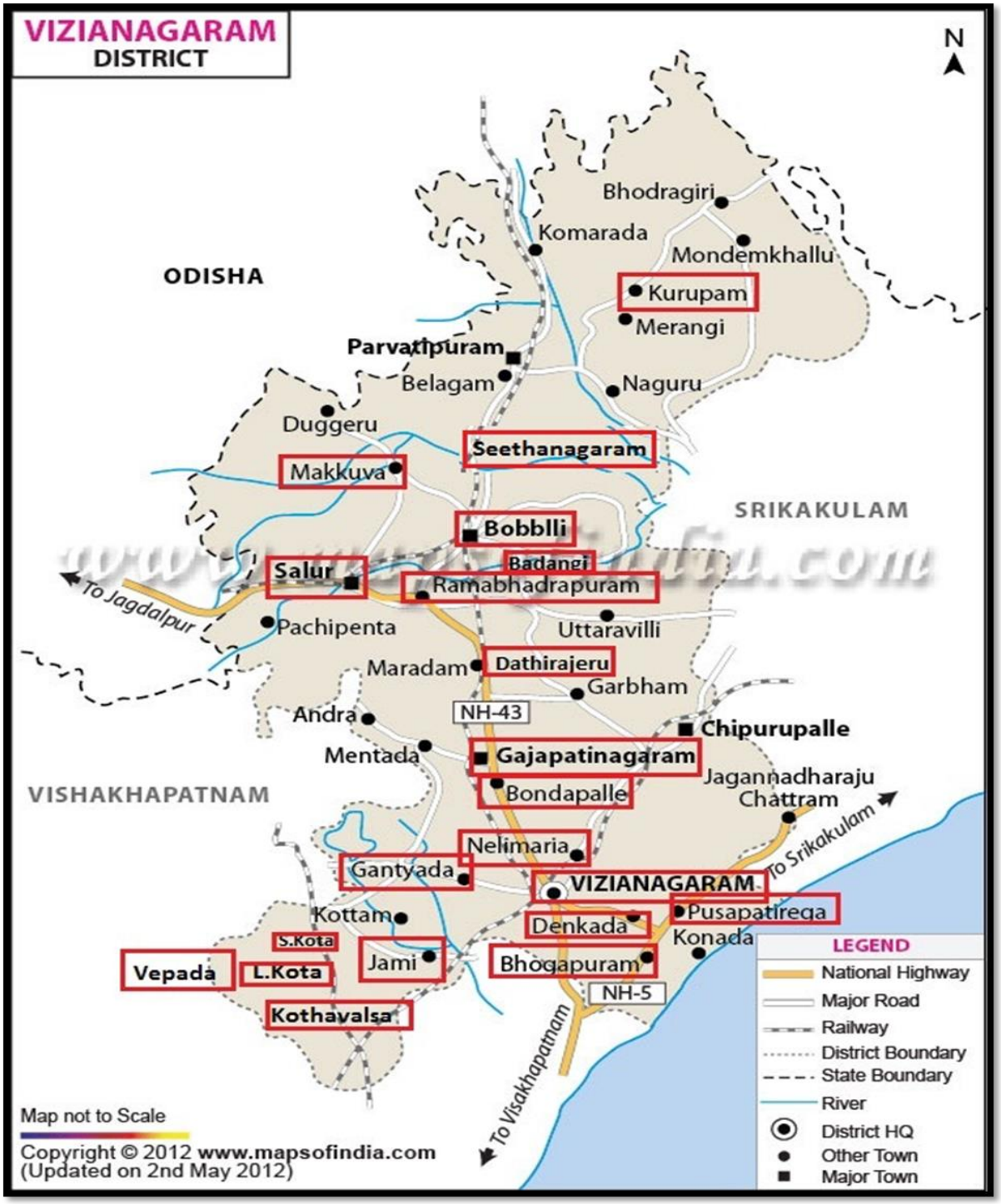


Photo 011: District map of Vizianagaram showing Schools & Blocks covered

7.1.3 Visakhapatnam District:

Below is the district map of Visakhapatnam district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 9 schools were covered in 4 Blocks of this districts.

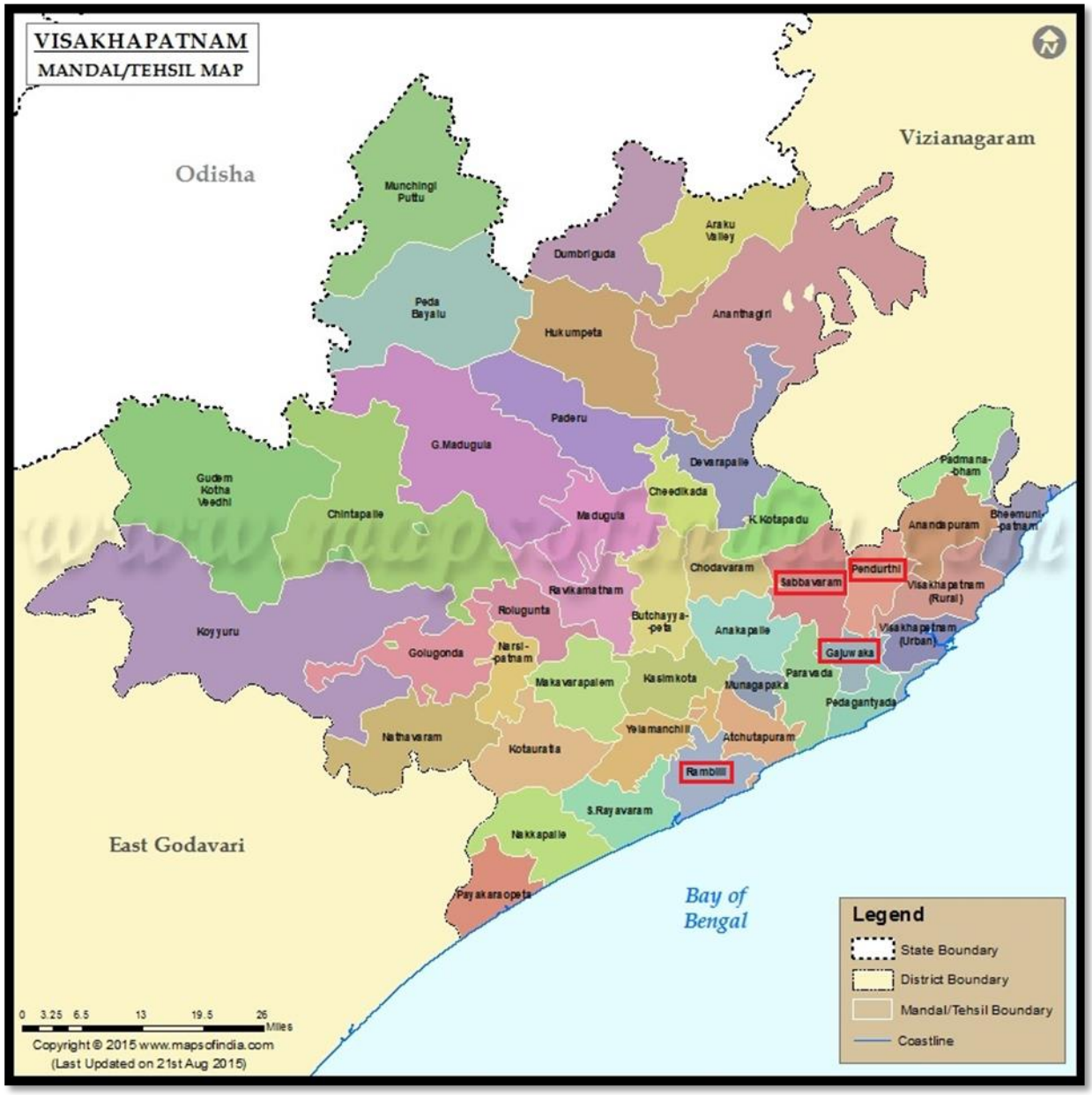


Photo 012: District map of Visakhapatnam showing Schools & Blocks Covered

7.1.4 East Godavari District:

Below is the district map of East Godavari district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 23 schools were covered in 11 Blocks of this districts.

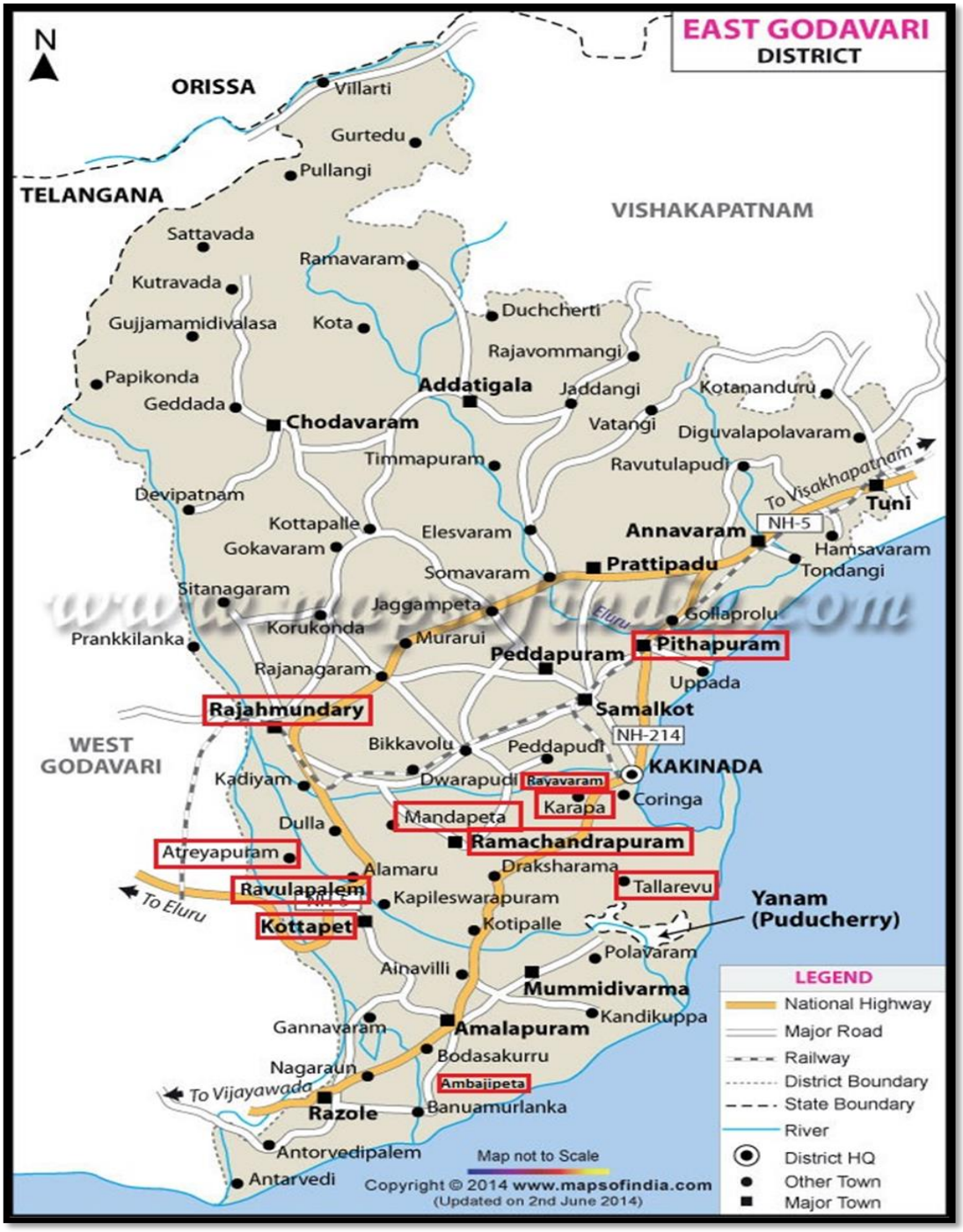


Photo 013: District map of Visakhapatnam showing Schools & Blocks Covered

7.2 Geographical Distribution ZONE-2

The Zone-2 consists of three districts as given in the below table, out of 107 Blocks in the three districts comprising of 1553 toilets 127 toilets have been covered from 58 Blocks. 9% of the toilets were covered while keeping the main objective of covering the entire district the 54.2 % of Blocks were covered from the three districts.

S. No	District	No. of Blocks Covered	No. of Schools / Toilets Covered
1	West Godavari	8	15
2	Guntur	26	71
3	Krishna	24	41
	Total	**58**	**127**

Table 007: Data showing Blocks and Schools covered in Zone-2

7.2.1 West Godavari District:

Below is the district map of East Godavari district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 15 schools were covered in 8 Blocks of this districts.

Photo 014: District map of West Godavari showing Schools & Blocks Covered

7.2.2 Guntur District:

Below is the district map of Guntur district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 71 schools were covered in 26 Blocks of this districts.

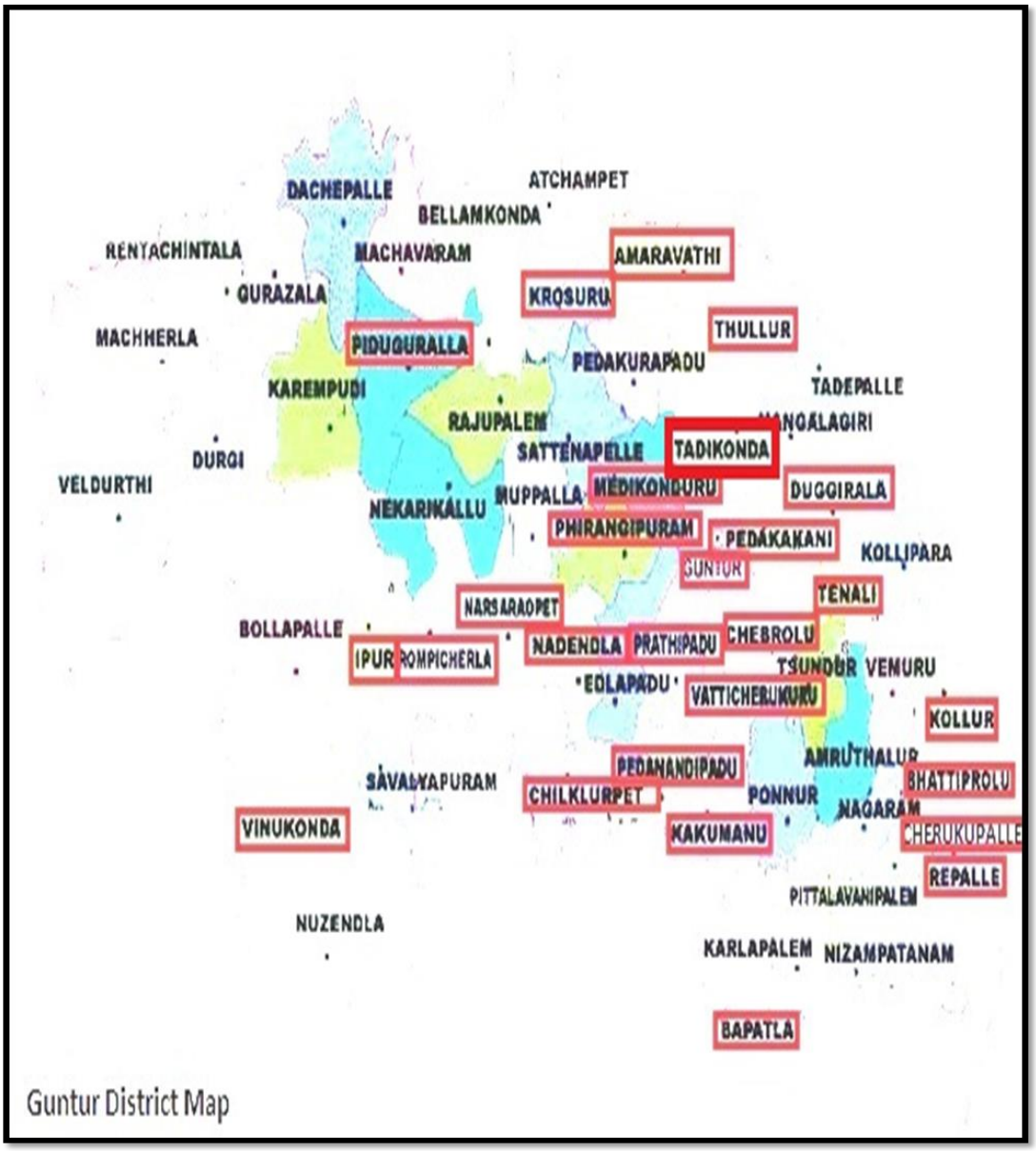


Photo 015: District map of Guntur showing Schools & Blocks Covered

7.2.3 District Map of Krishna District:

Below is the district map of Krishna district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 42 schools were covered in 24 Blocks of this districts.

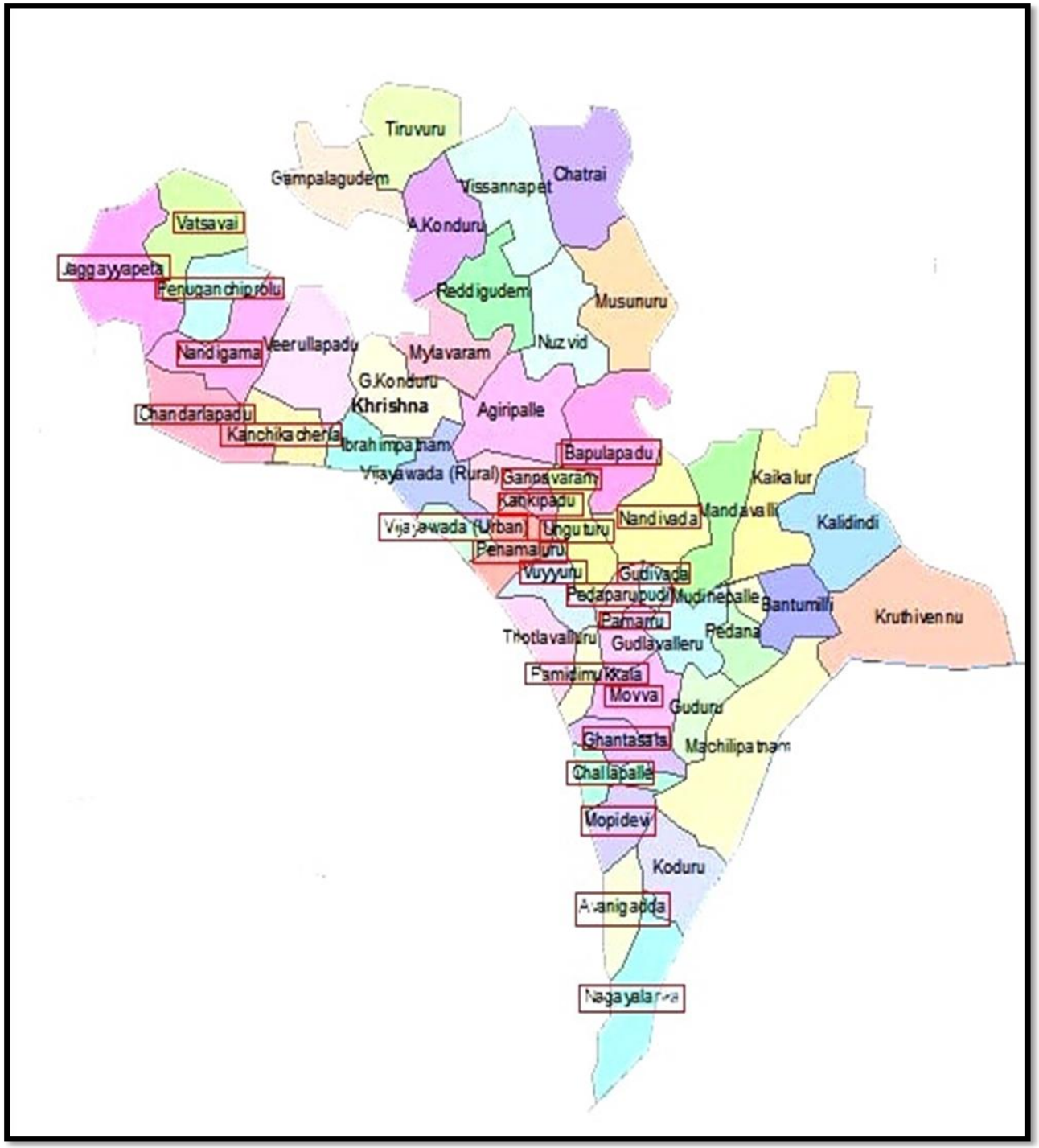


Photo 016: District map of Krishna showing Schools & Blocks covered

7.3 Geographical Distribution ZONE-3

The Zone-3 consists of three districts as given in the below table, out of 134 Blocks in the three districts comprising of 1610 toilets 122 toilets have been covered from 63 Blocks. 7.5% of the toilets were covered while keeping the main objective of covering the entire district 47% of Blocks were covered from the three districts.

S. No	District	No. of Blocks Covered	No. of Schools / Toilets Covered
1	Prakasam	24	70
2	Nellore	12	22
3	Chittoor	27	30
	Total	**63**	**122**

Table 008: Data showing Blocks and Schools covered in Zone-3

7.3.1 Prakasam District:

Below is the district map of Prakasam district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 70 schools were covered in 24 Blocks of this districts.

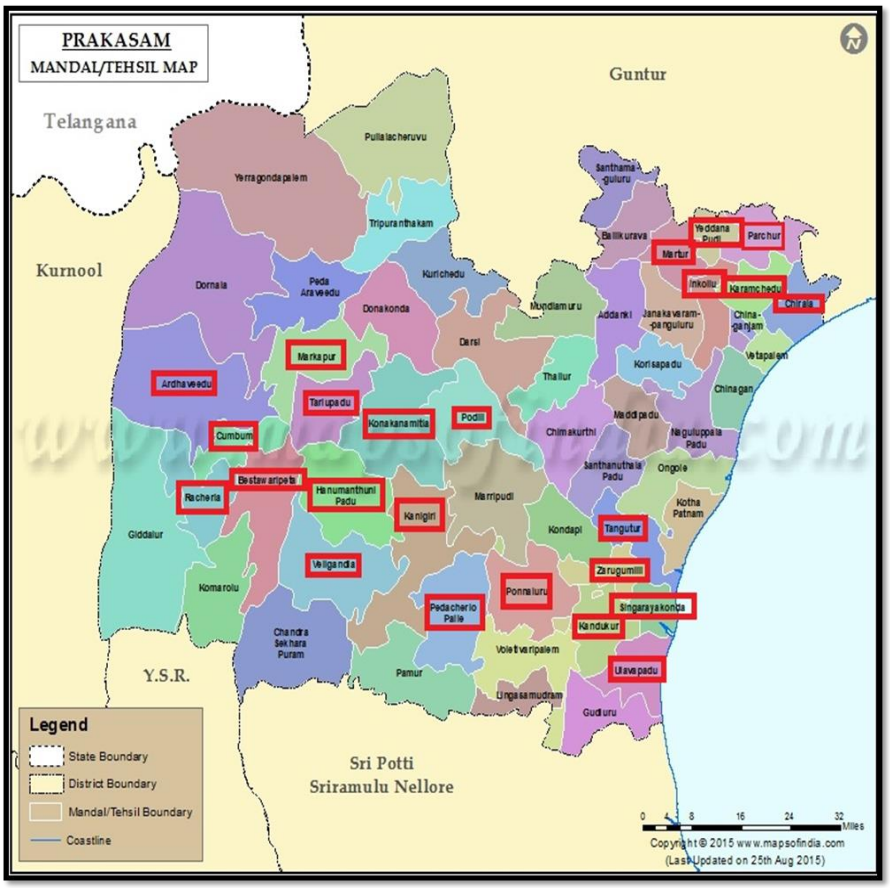


Photo 017: District map of Prakasam showing Schools & Blocks covered

7.3.2 Potti Sriramulu Nellore District:

Below is the district map of Potti Sriramulu Nellore district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 30 schools were covered in 27 Blocks of this districts.

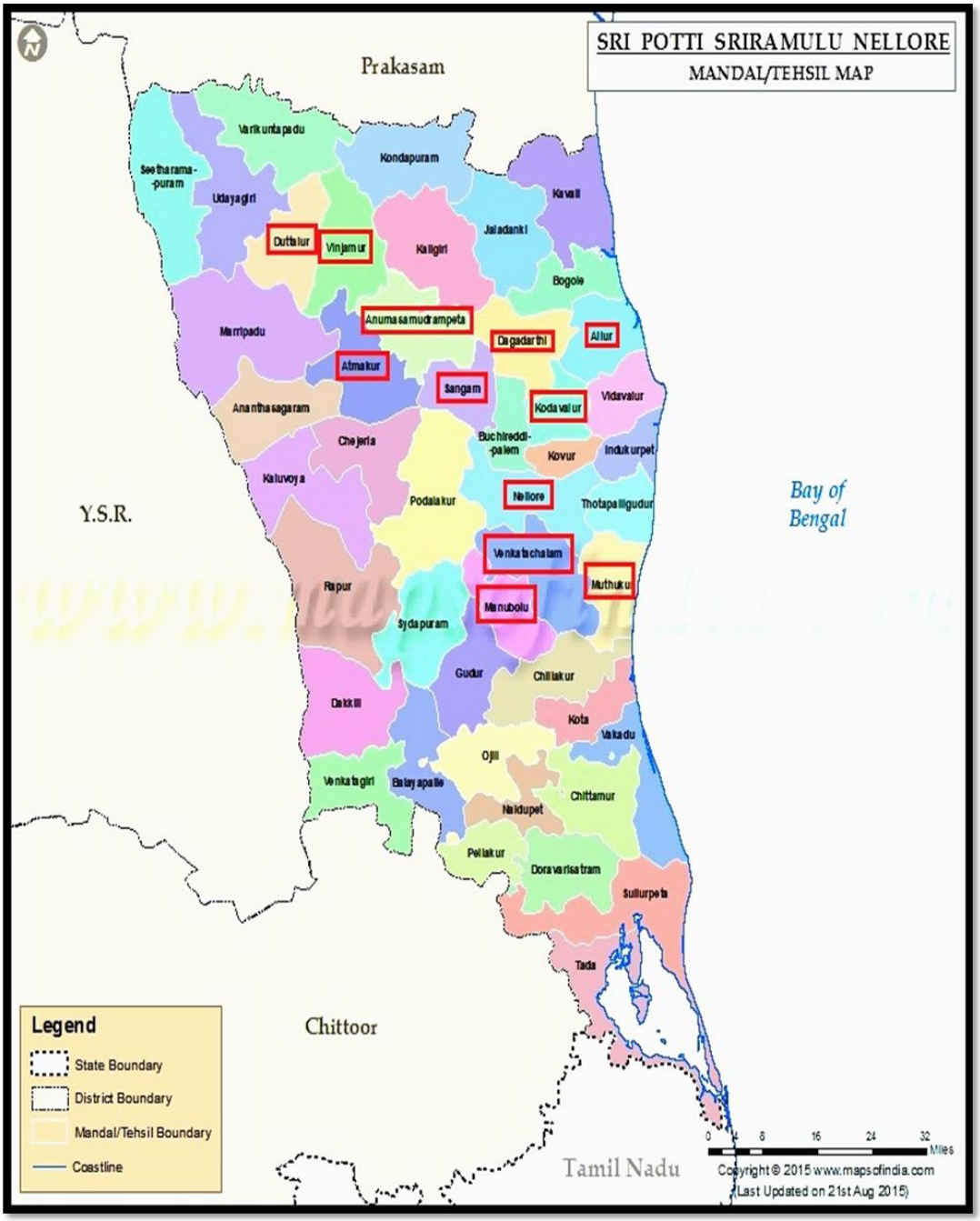
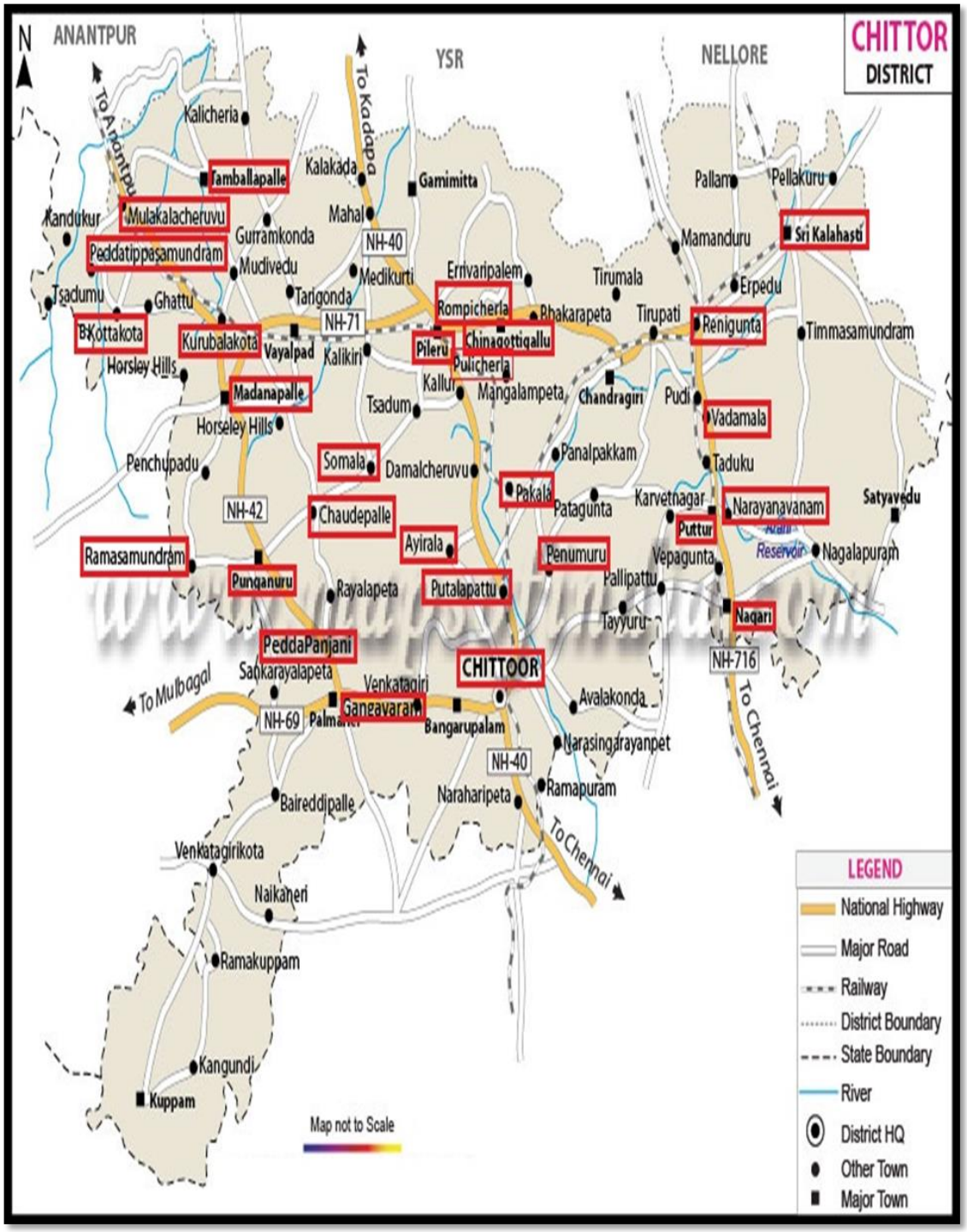


Photo 018: District map of Potti Sriramulu Nellore showing Schools & Blocks Covered

7.3.3 Chittoor District:

Below is the district map of Chittoor district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 30 schools were covered in 27 Blocks of this districts.



Photograph 019: District map of Chittoor showing Schools & Blocks covered

7.4 Geographical Distribution - Zone 4

The Zone-4 consists of three districts as given in the below table, out of 189 Blocks in the three districts comprising of 2595 toilets 126 toilets have been covered from 52 Blocks. 5.5% of the toilets were covered while keeping the main objective of covering the entire district 27% of Blocks were covered from the three districts.

S. No	District	No. of Blocks Covered	No. of Schools / Toilets Covered
1	Kadapa	15	31
2	Anantapur	26	73
3	Kurnool	11	22
	Total	**52**	**126**

Table 009: Data showing Blocks and Schools covered in Zone-4

7.4.1 YSR Kadapa District:

Below is the district map of Kadapa district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 31 schools were covered in 15 Blocks of this districts.

Photo 020: District map of YSR Kadapa showing Schools & Blocks Covered

7.4.2 Anantapur District:

Below is the district map of Anatapur district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 73 schools were covered in 26 Blocks of this districts

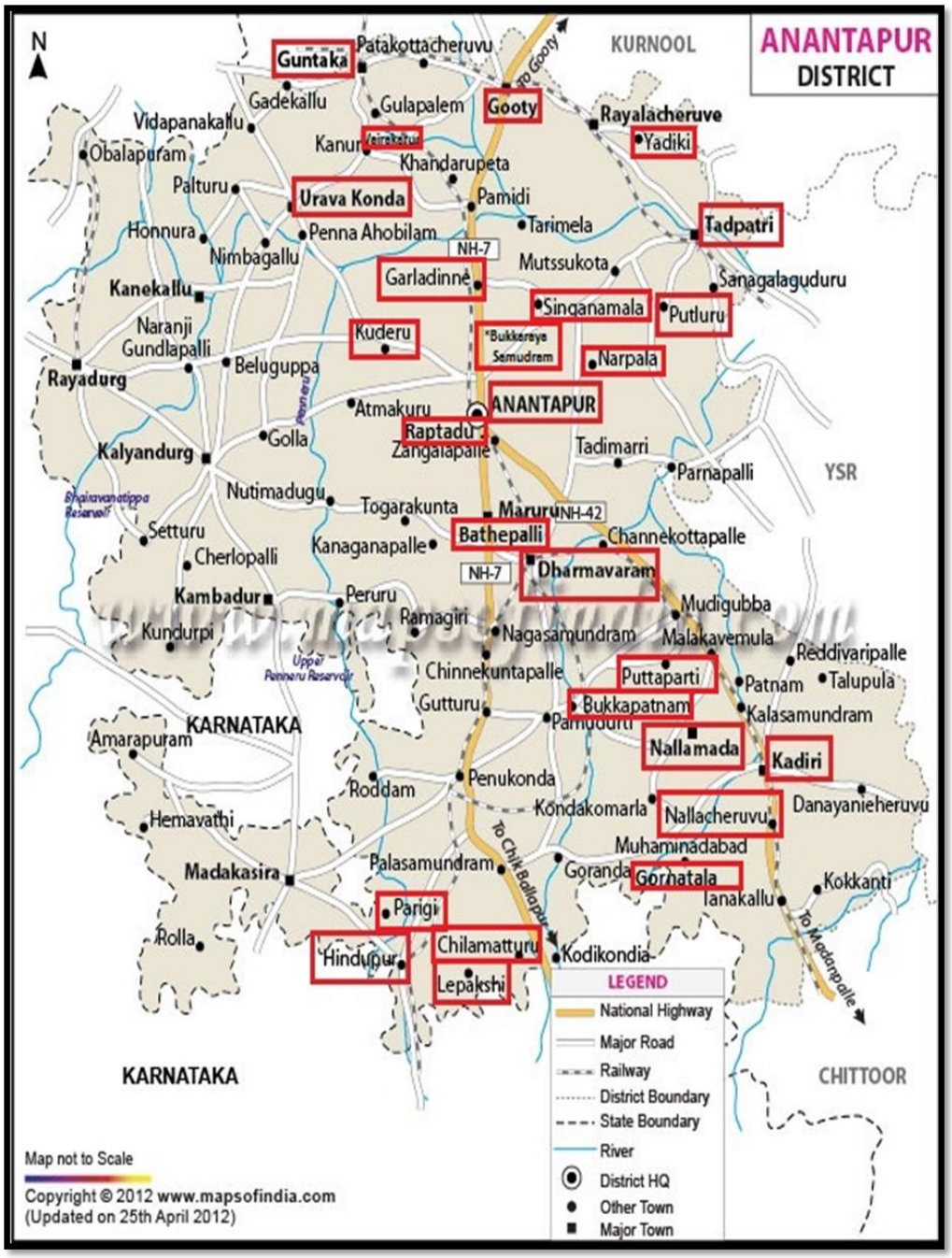


Photo 021: District map of Anantapur showing Schools & Blocks covered

7.4.3 Kurnool District:

Below is the district map of Kurnool district showing the schools covered under their respective Blocks, for clear understating the Blocks have been high lightened on the map for easy reference. A total of 22 schools were covered in 11 Blocks of this districts

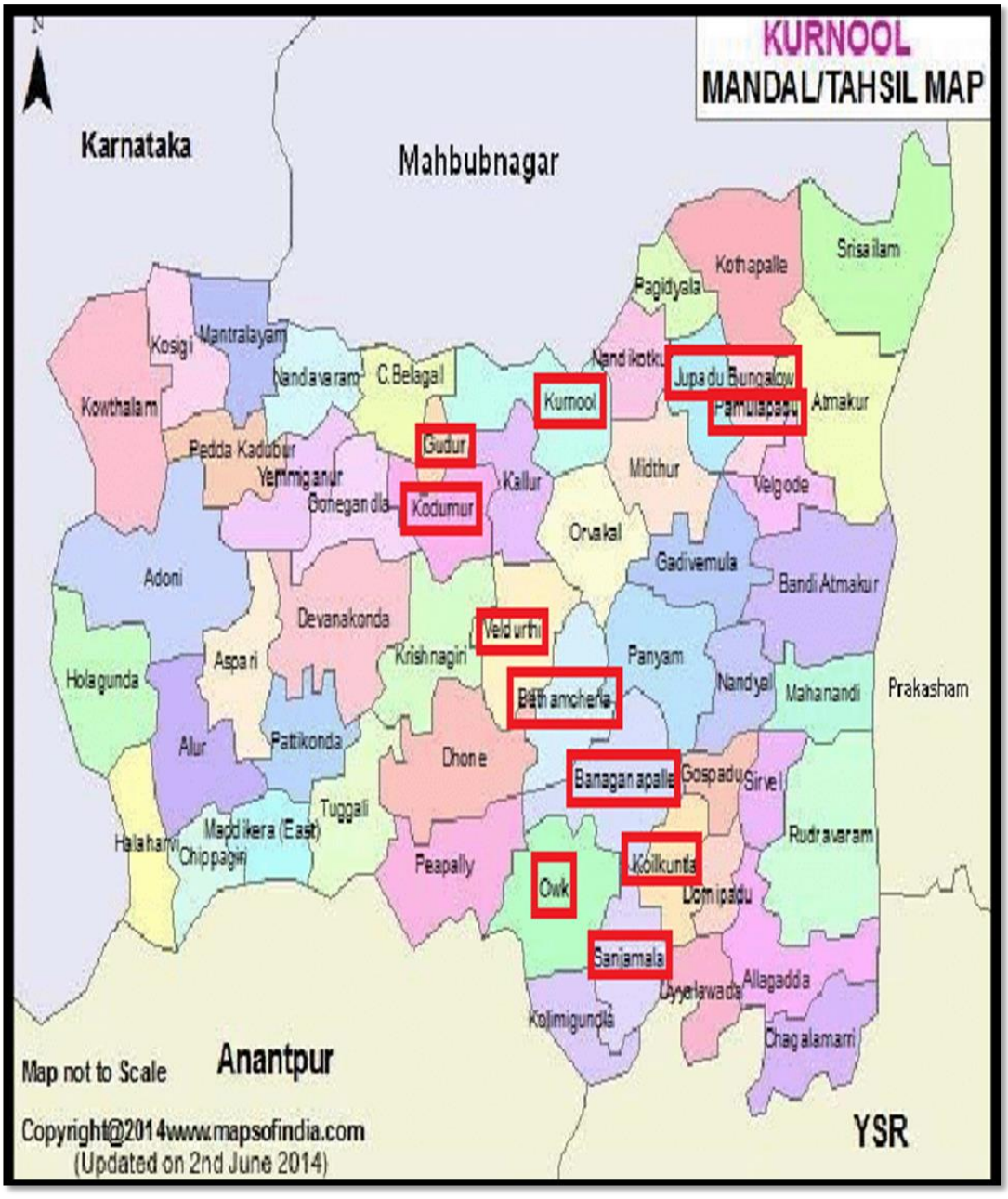


Photo 022: District map of Kurnool showing Schools & Blocks covered

8.0 FEEDBACK FROM STAKEHOLDERS/BENEFICIARIES ON PROJECT ACTIVITIES

Based on the objective of the study the questionnaire has been framed to collect the feedback to analyse the objective of the programme has been fulfilled or not. Hence to get the data from the beneficiaries the techno-social aspects have been taken into consideration which includes the structure stability, disposal of human waste system availability and its functioning, maintenance of the toilets (of course this is not part of PFC scope, but was considered to know the impact of the study post construction and handing over to school authorities). Even the affordability of maintenance has also been taken into consideration to know or to suggest the sponsorer about the consideration of maintenance in their new projects. The main aspect covering the social impact of the project on the immediate beneficiaries and their effect on the secondary beneficiaries i.e., their families and in their nearby villages has also been considered to map the requirement of the projects further.
The feedback collected from the beneficiaries of the 572 schools visited by our team have elaborated on the following as given below:

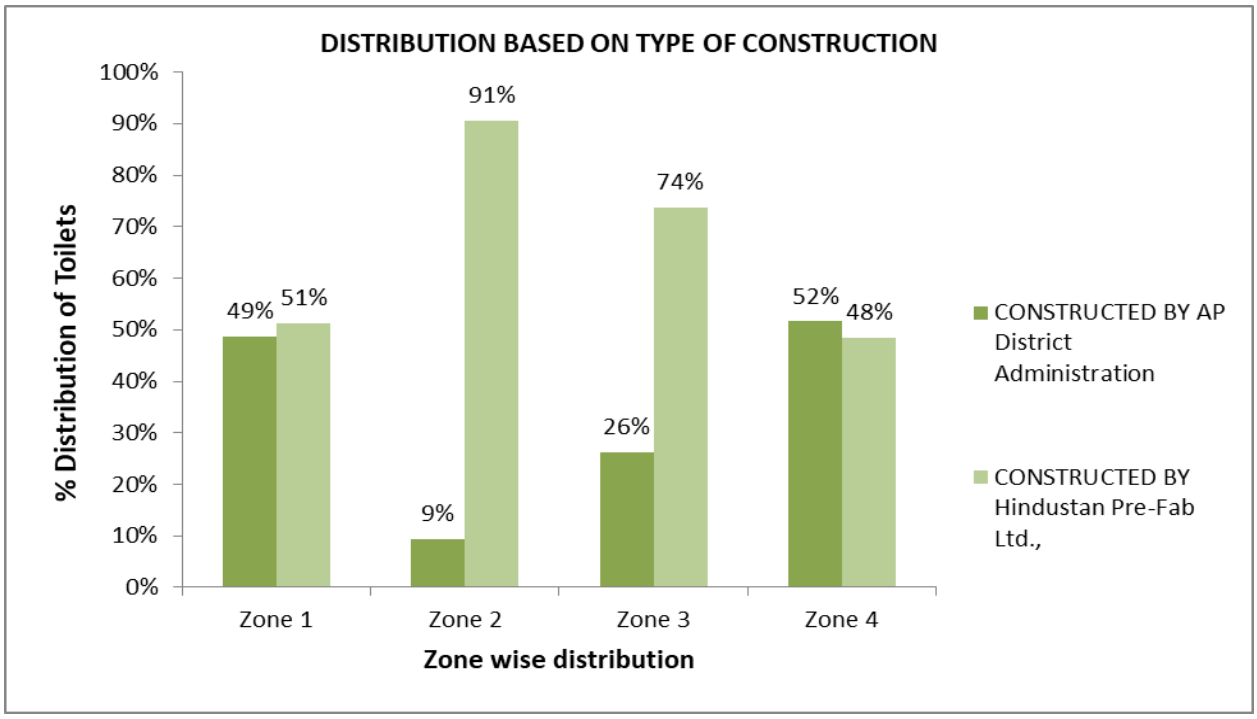
8.1 ESTABLISHMENT OF TOILET FACILITY

8.1.1 Civil Structure for Conventional & Prefabricated Toilets

Out of the 572 schools surveyed a total of 205 toilets have been constructed by conventional method and were taken up by District Administration of Andhra Pradesh and 367 toilets have been constructed by Hindustan Pre-Fab Ltd. Below is the table indicting the share between conventional and prefabricated toilets which indicates 35.8 % are conventional toilets and 64.2% are prefabricated toilets

S.No	Zones	CONSTRUCTED BY	
		AP District Administration	Hindustan Pre-Fab Ltd.,
1	**Zone 1**	96	101
2	**Zone 2**	12	115
3	**Zone 3**	32	90
4	**Zone 4**	65	61
	TOTAL	**205**	**367**

Table 010: Type of toilet construction among the schools surveyed



Graph 001: Distribution of toilets based on type of Construction

8.1.2 Quality of Construction

The below parameters were considered and feedback on the them have been taken into account for analysing the quality of construction

- Separate toilets for boys and girls with one unit generally having one toilet + 3 urinals.
- Hand wash facilities were provided at all the toilet facilities of the school.
- Doors with child friendly latch
- Floor with adequate slope and maintainable durable finish
- Partition between urinals with adequate squatting area
- Opening for natural light and ventilation

Parameters Considered for Conventional Toilets

- The design, space, quality of construction due to concrete slab and brick walls along with tiled floor seems to be durable convenient and satisfied by the users and school administration.
- The disposable facilities were much more preferred thorough septic tank than soak pit method.

Parameters Considered for Prefabricated Toilets

- The constructions of pre-fabricated toilets were observed well satisfied by the user and the school management.
- The prefabricated toilets were found to be easy to establish, convenient in maintenance and less occupancy of space.

Based on the feedback from the above parameters the quality of construction has been rated on the scale from Dissatisfied, less Satisfied, satisfied, well satisfied and Most satisfied as given below in the table and graph, the table indicates the quantitative analysis i.e., number of schools responded among the surveyed and the graph indicates the qualitative analysis i.e., percentage weightage among the parameters surveyed.

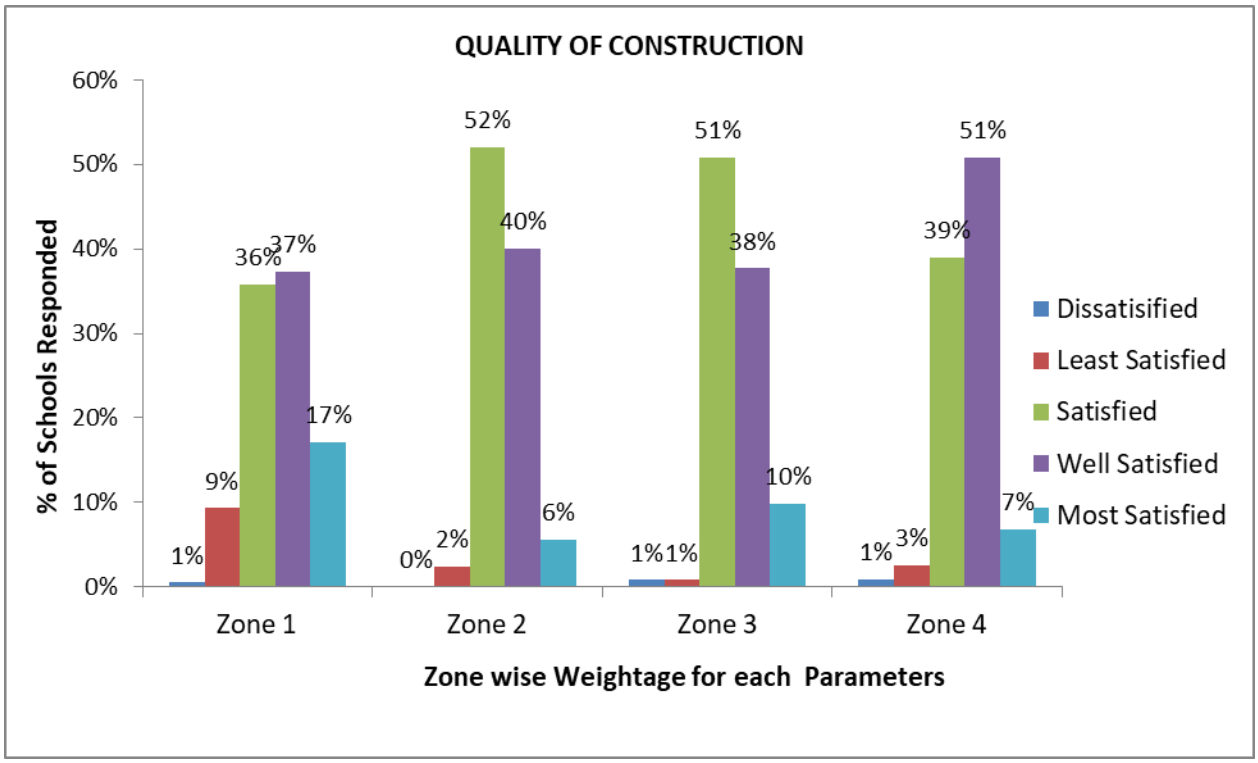
QUANTITATIVE IMPACT ASSESSSMENT FOR THE QUALITY OF CONSTRUCTION OF TOILETS						
S.No	**Question**	**Zone wise**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Quality of Construction**	**Zone 1**	197	193	4	98%
		Zone 2	127	125	2	98%
		Zone 3	122	122	0	100%
		Zone 4	126	118	8	94%
		Total	**572**	**558**	**14**	**98%**

Table 011: Quantitative Impact Assessment for the Quality of Construction of Toilets

QUALITATIVE IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTION						
S.No	**Question**	**Zone wise**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			No. Responded	**No. Responded**	**No. Responded**	**No. Responded**
1	**Quality of Construction**	**Dissatisfied**	1	0	1	1
		Least Satisfied	18	3	1	3
		Satisfied	69	65	62	46
		Well Satisfied	72	50	46	60
		Most Satisfied	33	7	12	8
		Total	**193**	**125**	**122**	**118**

Table 012 : Qualitative Impact Assessment for the Quality of Construction of Toilets

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 558 among the 572 surveyed, hence the analysis has been done for 558 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded i.e., **558**.



Graph 002: Feedback on weightage on parameters for Quality of Construction of Toilets

- Majority of these toilets were found to be fully constructed and operational in good condition.
- Both Conventional and Pre-fabricated constructed toilets were found to be sustainable due to its model of construction, cost effective and easy to maintain in day-to-day life activities apparently user friendly at school level.
- The study indicated the that 44% of management of the school and the school children **were satisfied and 41% well satisfied** with a remark of more than 85% falling under satisfied and well satisfied category and 10% under most satisfied category, where as they were hardly only 1 remarks @ **1% (very negligible)** on the dissatisfied parameters. The zone wise statistics are mentioned in percentage of each school of every zone.

In overall perspective the construction activity taken up was more satifies with 95% of the schools surveyed expressed that they are very happy with the type of construction undertaken.

8.1.3 Quality of Plumbing Work

Based on the feedback from the above parameters the quality of plumbing work has been rated on the scale from Dissatisfied, less Satisfied, satisfied, well satisfied and Most satisfied as given below in the table and graph, the table indicates the quantitative analysis i.e., number of schools responded among the surveyed and the graph indicates the qualitative analysis i.e., percentage weightage among the parameters surveyed.

- Facilities like water connection connected in each and every toilet were found mostly in prefabricated model of toilets.
- Whereas the conventional toilets were found to be mixed of well-connected water facilities. The plumbing works were found to be incomplete at some of the schools and the students in these schools had to depend on well water or from the nearest source of water.

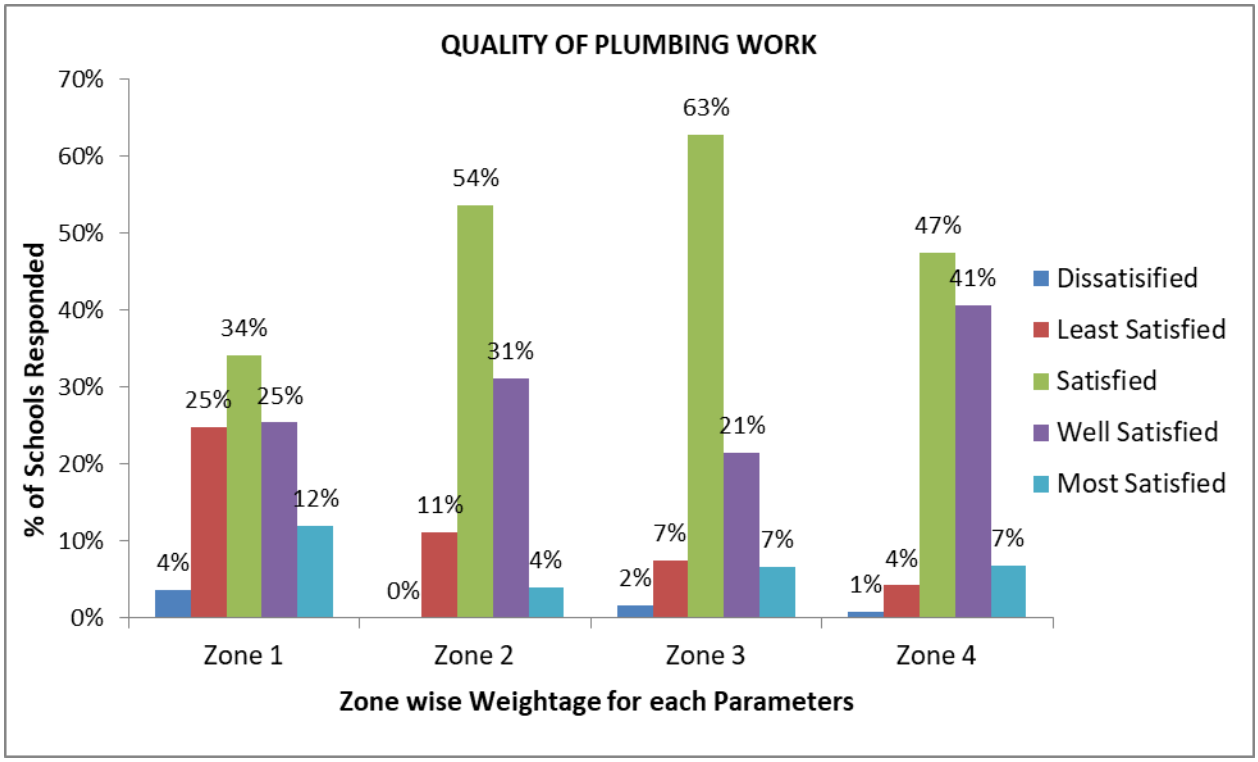
QUANTITATIVE IMPACT ASSESSSMENT FOR THE QUALITY OF PLUMBING WORK OF TOILETS						
S.No	**Question Asked**	**Zone Wise**	**No of Schools Surveyed**	**No of Schools Responded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Quality of Plumbing Work**	**Zone 1**	197	193	4	98%
		Zone 2	127	125	2	98%
		Zone 3	122	121	1	99%
		Zone 4	126	118	8	94%
		Total	**572**	**557**	**15**	97%

Table 013 : Quantitative Impact Assessment for the Quality of Plumbing works of Toilets

QUALITATIVE IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS						
S.No	**Question Asked**	**Zone Wise**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			No. Responded	**No. Responded**	**No. Responded**	**No. Responded**
1	**Quality of Plumbing Work**	**Dissatisfied**	7	0	2	1
		Least Satisfied	48	14	9	5
		Satisfied	66	67	76	56
		Well Satisfied	49	39	26	48
		Most Satisfied	23	5	8	8
		Total	**193**	**125**	**121**	**118**

Table 014 : Qualitative Impact Assessment for the Quality of Plumbing works of Toilets

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 557 among the 572 surveyed, hence the analysis has been done for 557 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded i.e., **557**.



Graph 3: Feedback on Quality of Plumbing of both conventional & Prefabricated Toilets surveyed

- Majority of these prefabricated toilets were well connected with water throught he plumbing work and found to be operational in good condition.
- But the Conventional ttoilets were not so satisfactory coming to the plumbing work as many have been found to be disconnected with water connectivity and had to depend on outsource water.
- The study indicated the that 50% of management of the school and the school children **were satisfied and 30% well satisfied** with a remark of more than 80% falling under satisfied and well satisfied category and 14% under least satisfied and dissatisfied category, where as they were hardly only 7**% (very negligible)** on the Most dissatisfied parameters. The zone wise statistics are mentioned in percentage of each school of every zone.

In overall perspective the quality of plumbing taken up was well in the prefabricated toilets rather than in conventional toilets, the 14% below the less & dissatisfied were mainly from the conventional toilets, but overall picture shows from the schools surveyed expressed that they 80% are very happy with the type of plumbing work undertaken.

8.2 ESTABLISHMENT OF TOILET FACILITY

8.2.1 Availability of Septic tank / Soak pit

Based on the feedback from the above parameters the availability of disposal facility in terms of septic tank or soak pit and both combined has been computed as given below in the table and graph, the table indicates the quantitative analysis i.e., number of schools responded among the surveyed and the graph indicates the qualitative analysis i.e., availability of the disposal facility.

It has been observed from that some schools in Zone -1 have both septic tank followed by soak pit for the disposal of the treated sewage. Hence the total number in qualitative analysis of zone-1 has increased from 197 to 202, which indicated that 5 schools in the above zone have both the facilities for disposal.

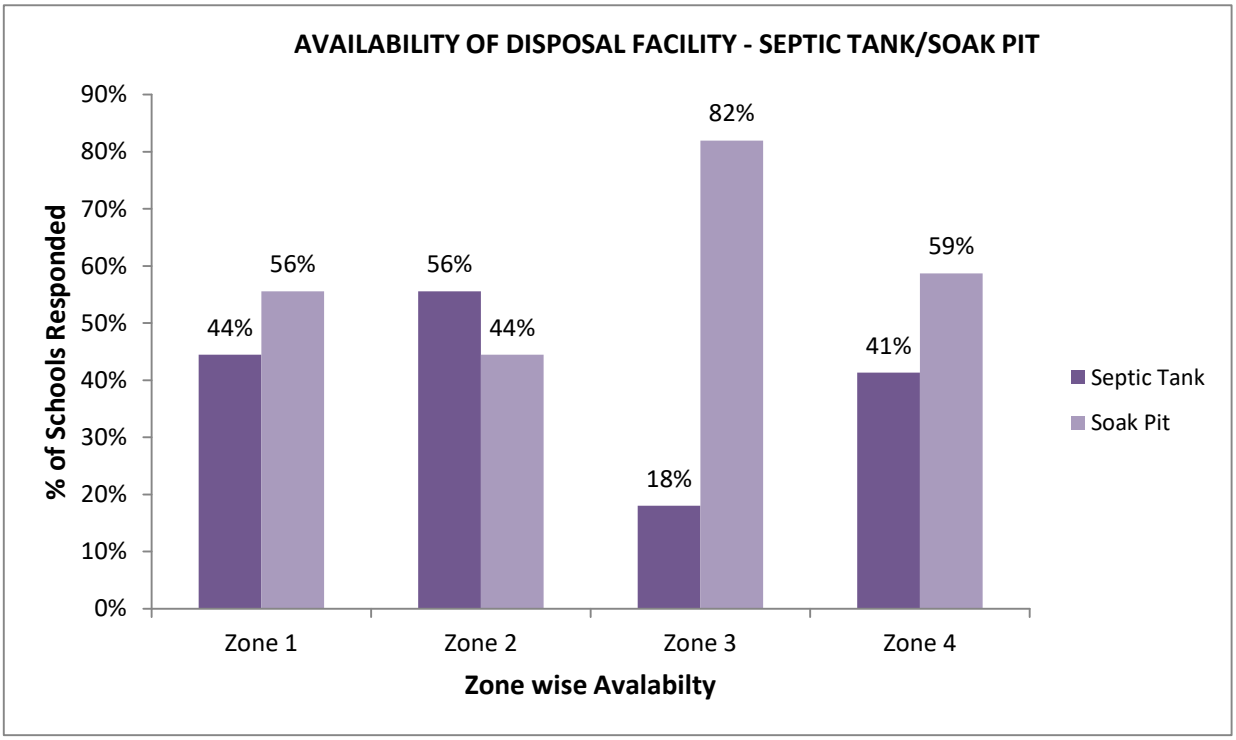
QUANTITATIVE IMPACT ASSESSSMENT FOR THE CONSTRUCTION OF SEPTIC TANK / SOAK PIT						
S.No	**Question Asked**	**Zone Wise**	**No of Schools Surveyed**	**No of Schools Responded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Construction of Septic Tank / Soak Pit**	**Zone 1**	197	194	3	98%
		Zone 2	127	126	1	99%
		Zone 3	122	122	0	100%
		Zone 4	126	121	5	96%
		Total	**572**	**563**	**9**	98%

Table 015: Quantitative Impact Assessment for the Construction of Septic Tank / Soak Pit

QUALITATIVE IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED							
S.No	**Question Asked**	**Item**	**Availability**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
				Schools Responded	**Schools Responded**	**Schools Responded**	**Schools Responded**
1	**Construction of Septic Tank / Soak Pit**	**Septic Tank**	**Yes**	92	70	22	50
			No	0	0	0	0
		Soak Pit	**Yes**	115	56	100	71
			No	0	0	0	0
		Total		**207**	**126**	**122**	**121**

Table 016: Qualitative Impact Assessment based on Statistics of each question asked

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 563 among the 572 surveyed, hence the analysis has been done for 563 responded schools considering it as 100%.



Graph 004: Graph indicating the comparison between availability of disposal system (Soak pit versus septic tank)

In overall perspective the availabilty of the diposal facility is found to be 100% in all zones except in zone-3 as thte constructed units have been dimantles due to expansion in schools building or the municipal/panchayat road ectension otherwise it was found that all the schools have been facilitated with the propoer hygenis disposla system under this project and the overall result was most satisfied from the beneficiaries.

8.2.2 Capacity of the Septic Tank

The survey conducted for the sufficiency of the capacity of disposal system has revealed that all the facilities are been constructed keeping the design for future expansion hence the Septic tanks and soak pits have been functioning above the designed performance and till date they have never required to empty the tanks as only the treated liquid is being discharged out of the tanks.

8.2.3 Sewer Drain Connectivity

The following questioned wasn't answered by 99% of the respondents as they have never faced a disposal problem ever since the operation of the toilets started. Since the majority of the toilets have been constructed in rural area where the sewer lines system is mostly absent the outlet of soak pit/septic tank is being let to nearby drains are to agriculture fields.

8.3 MAINTENANCE OF TOILETS

8.3.1 Availability of Water Facility

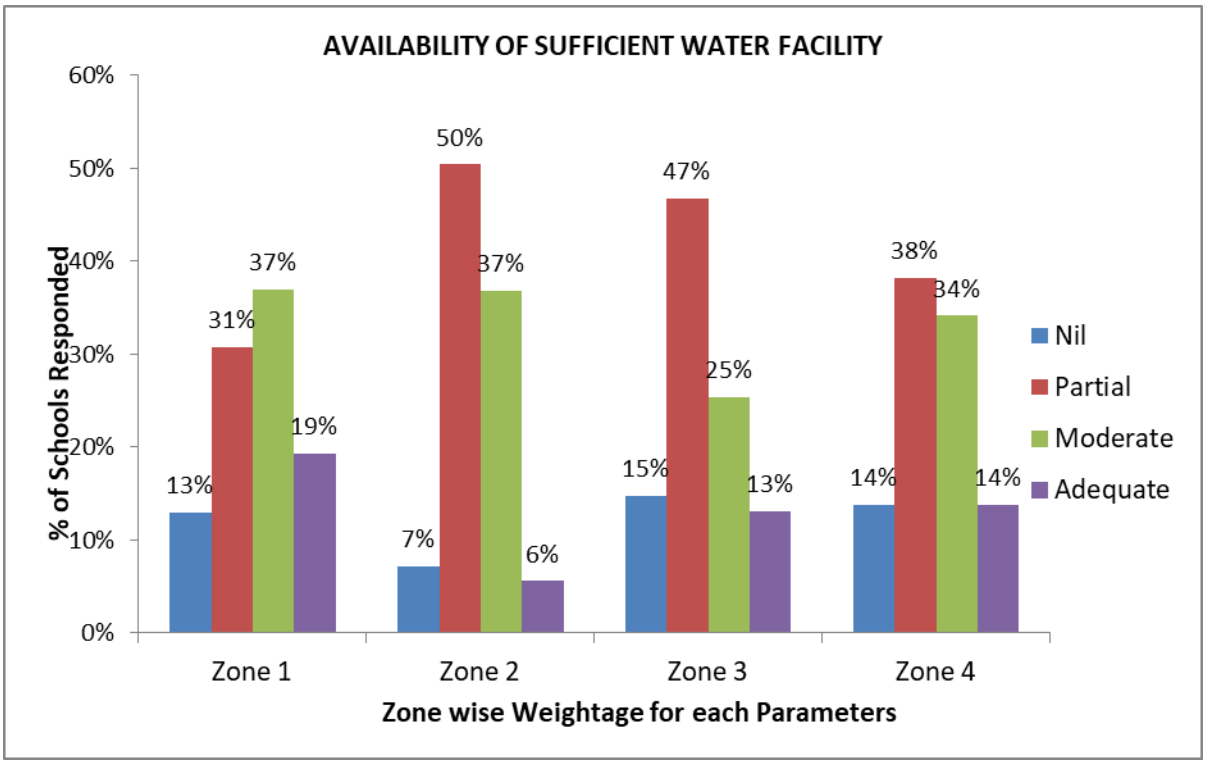
Based on the feedback from the above parameters the availability of water facility ratings have been done on the scale of Nil, Partial, Moderate and Adequate given below in the table and graph, the table indicates the quantitative analysis i.e., number of schools responded among the surveyed and the graph indicates the qualitative analysis i.e., availability of the water facility.

IMPACT ASSESSSMENT FOR THE AVAILABILITY OF SUFFICIENT WATER FACILITY						
S.No	**Question Asked**	**Zone Wise**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Availability of sufficient water facility**	**Zone 1**	197	192	5	97%
		Zone 2	127	125	2	98%
		Zone 3	122	122	0	100%
		Zone 4	126	123	3	98%
		Total	**572**	**562**	**10**	98%

Table 017: Quantitative Impact Assessment for the Availability of Sufficient Water Facility

IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
S.No	**Question Asked**	**Zone Wise**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			Schools Responded	**Schools Responded**	**Schools Responded**	**Schools Responded**
1	**Availability of sufficient water facility**	**Nil**	25	9	18	17
		Partial	59	63	57	47
		Moderate	71	46	31	42
		Adequate	37	7	16	17
		Total	**192**	**125**	**122**	**123**

Table 018: Qualitative Impact Assessment based on Statistic of each Question Asked



Graph 005: Availability of Sufficient Water Facility

- Most of the schools have well connected water facility with good plumbing connections.
- A few schools in the Zone III & IV had problems with water facility due to lack of public water facility, overhead tank connectivity or provision of bore wells. These schools were found to be in self-dwelling water facility by the users.
- The statistics collected from the study indicates that water facilities with moderate or adequate availability in more than 46 % of the schools and the remaining schools either have water facility but lack in connection facilities or due to water scarcity at few places which can be scaled on an average to 12%.

8.3.2 Hygienic Standards

Based on the feedback on improved hygienic standards the ratings have been done on the scale from Nil, Can be Better, Moderate and Good as given below in the table and graph, the table indicates the quantitative analysis i.e., number of schools responded among the surveyed and the graph indicates the qualitative analysis i.e., availability of the disposal facility

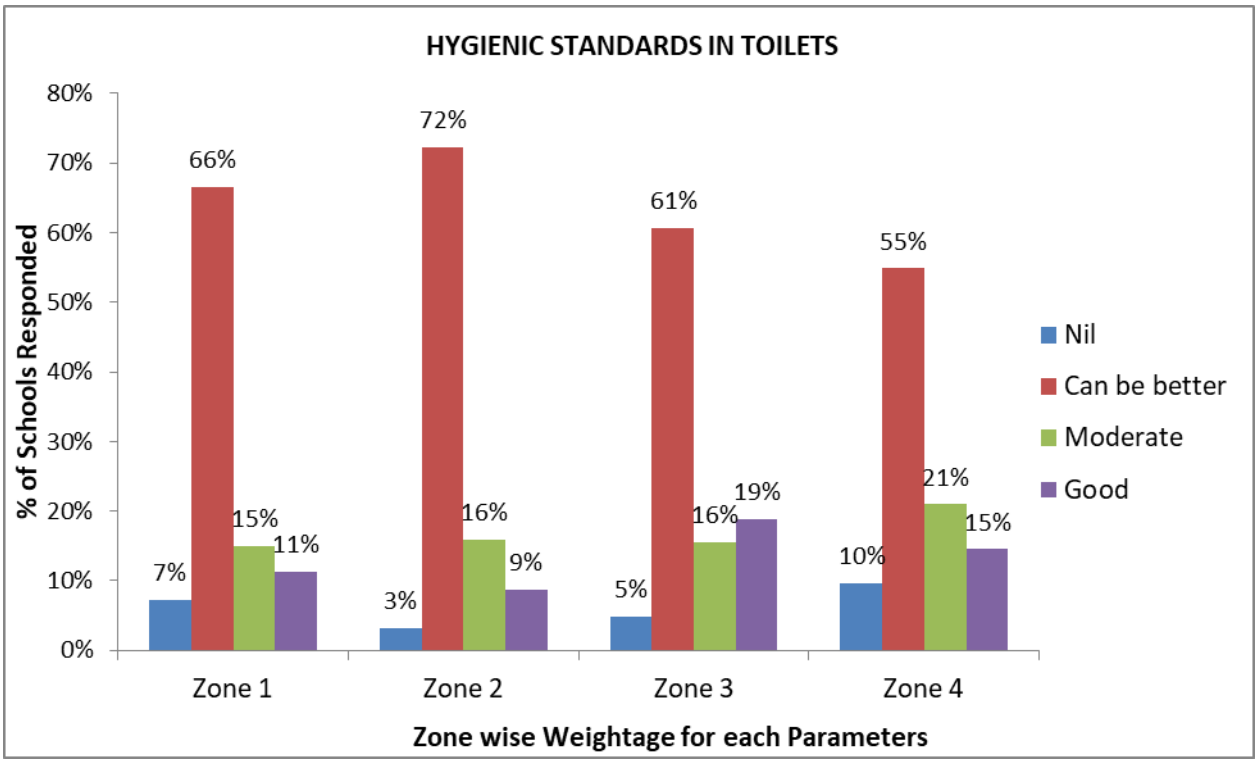
QUANTITATIVE IMPACT ASSESSSMENT FOR THE HYGIENIC STANDARDS						
S.No	**Question Asked**	**Zone Wise**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Hygienic Standards**	**Zone 1**	197	194	3	98%
		Zone 2	127	126	1	99%
		Zone 3	122	122	0	100%
		Zone 4	126	124	2	98%
		Total	**572**	**566**	**6**	99%

Table 019: Quantitative Impact Assessment for the Hygienic Standards

QUALITATIVE IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
S.No	**Question Asked**	Zone Wise	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			No. Responded	**No. Responded**	**No. Responded**	**No. Responded**
1	**Hygienic Standards**	**Nil**	14	4	6	12
		Can be better	129	91	74	68
		Moderate	29	20	19	26
		Good	22	11	23	18
		Total	**194**	**126**	**122**	**124**

Table 020: Qualitative Impact Assessment based on the Statistics of each question asked

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 566 among the 572 surveyed, hence the analysis has been done for 566 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded.



Graph 006: Hygienic Standards of Toilets

- Provision of projects at school levels has brought in some sense of social discipline in the behaviour of the present generation.

- But the study indicated that though the usage of toilet facility has increased drastically in recent years but some gaps are identified when compared to the hygienic conditions in these toilets.

- The statistics shows that majority of the schools have marked improvement in hygienic conditions and the average 30% of the overall schools are satisfied with the current hygienic standards and 64 % have indicated that they can do better in maintain the hygienic standards.

8.4 AFFORDABILITY

Based on the feedback for quality of plumbing the ratings have been done on the scale from Dissatisfied, less Satisfied, satisfied, well satisfied and Most satisfied as given below

- All these schools were found to be self-sustained in terms of cleaning material purchase and salaries to maintenance staff.
- As it is observed that there has been an irregular funding from the Government, therefore, the school management strongly recommended for this provision to be regularized on month on month basis for a better maintenance of the toilets.

- The study observed that 48% of the total schools expressed their requirements in terms of financial support for cleaning items procurement for better hygienic conditions.
- 19% of the total schools expressed their requirements in terms of financial support for water supply infrastructure.
- 32% of the total schools expressed their requirements in terms of financial support for availability of cleaning staff on day-to-day regular basis.
- However, almost none of the schools demanded in terms of support for electricity.

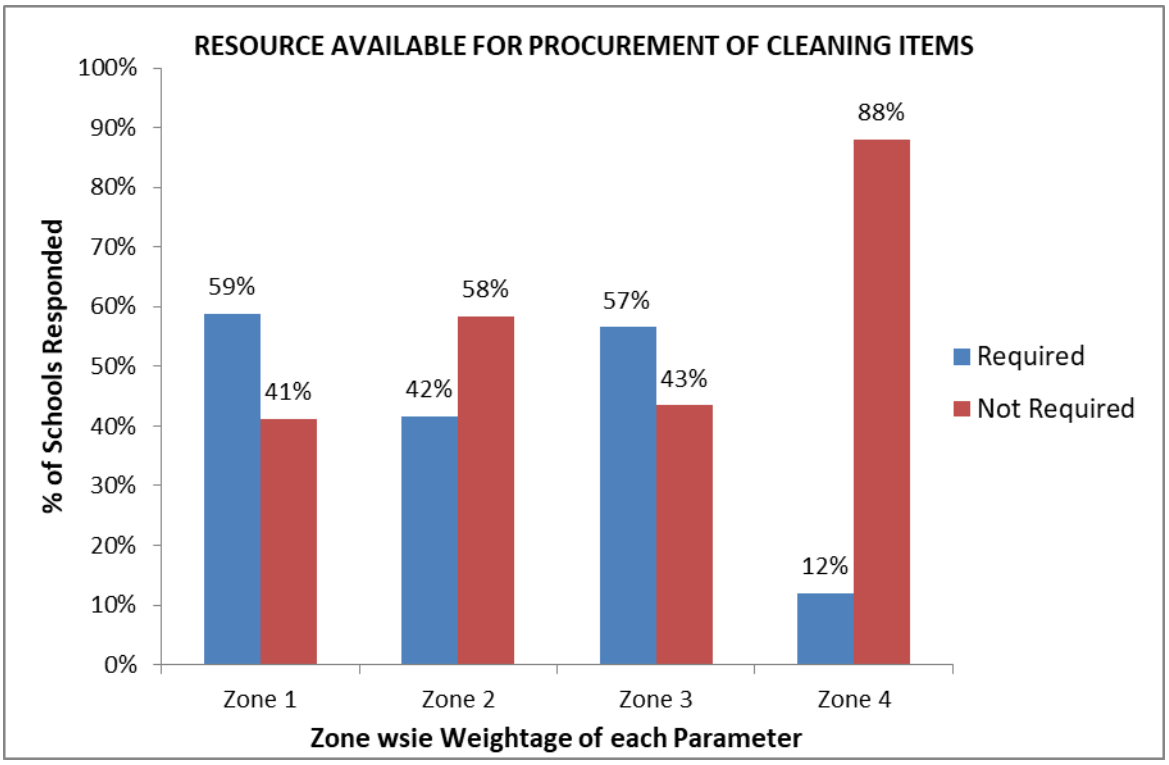
8.4.1 Cleaning Items Procurement

QUANTITATIVE IMPACT ASSESSSMENT FOR THE AFFORDABILITY-PROCUREMENT						
S.No	**Question Asked**	**Zone wise**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Do you agree that your school needs a major upgrade to be able to maintain the toilets more effectively in the areas of Cleaning Items Procurement**	**Zone 1**	197	197	0	100.0%
		Zone 2	127	125	2	98.4%
		Zone 3	122	122	0	100.0%
		Zone 4	126	126	0	100.0%
		Total	**572**	**570**	**2**	99.7%

Table 021: Quantitative Impact Assessment for the Affordability-Procurement

QUALITATIVE IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED-PROCUREMENT						
S.No	**Question Asked**	**Zone Wise**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			No. Responded	**No. Responded**	**No. Responded**	**No. Responded**
1	**Procurement of Cleaning items**	**Required**	116	52	69	15
		Not Required	81	73	53	111
		Total	**197**	**125**	**122**	**126**

Table 022: Qualitative Impact Assessment based on Statistics of each question asked



Graph 007: Availability of Resource for Procurement of Cleaning Items

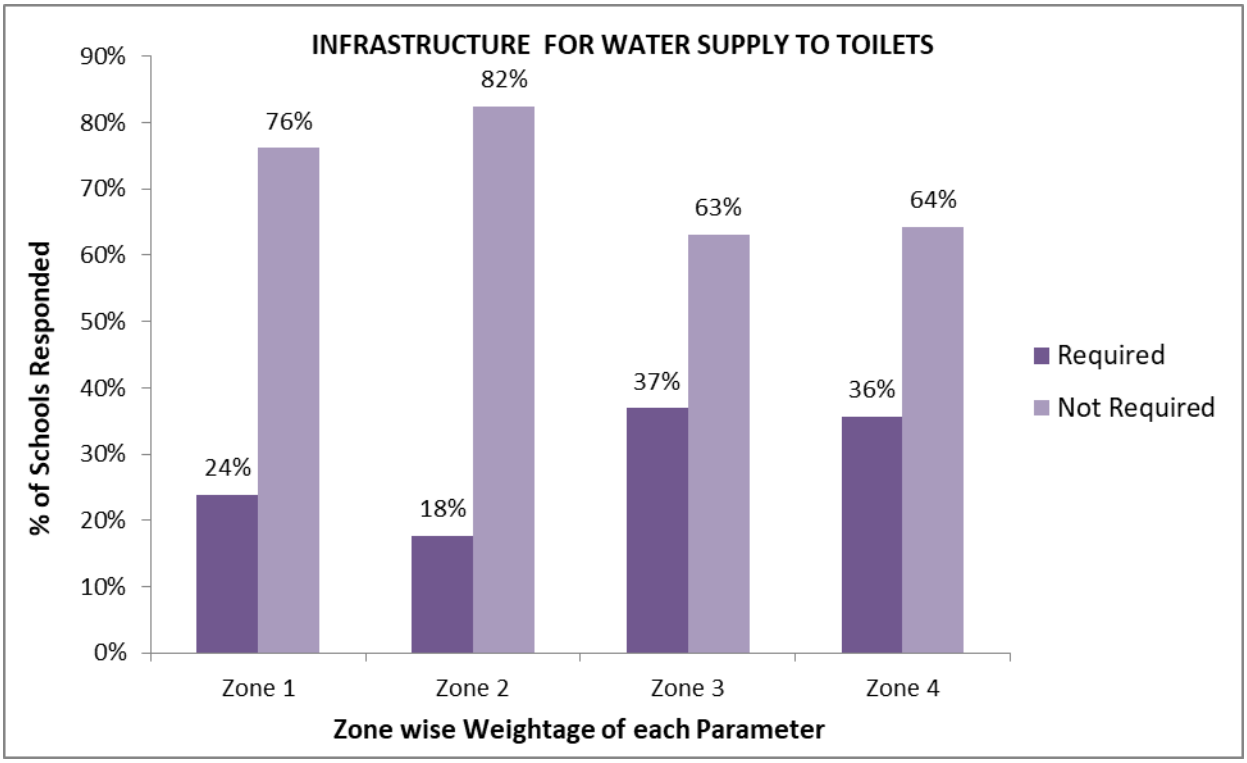
8.4.2 Water Supply Infrastructure

QUANTITATIVE IMPACT ASSESSSMENT FOR THE AFFORDABILITY-WATER SUPPLY INFRASTRUCTURE						
S.No	**Question Asked**	**Zone wise**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Do you agree that your school needs a major upgrade to be able to maintain the toilets more effectively in the areas of Water Supply Infrastructure**	**Zone 1**	197	197	0	100.00%
		Zone 2	127	125	2	98.43%
		Zone 3	122	122	0	100.00%
		Zone 4	126	126	0	100.00%
		Total	**572**	**570**	**2**	99.65%

Table 023: Quantitative Impact Assessment for the Affordability-Water Supply Infrastructure

QUALITATIVE IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
S.No	**Question Asked**	**Zone wise**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			No. Responded	**No. Responded**	**No. Responded**	**No. Responded**
1	**Water Supply Infrastructure**	**Required**	47	22	45	45
		Not Required	150	103	77	81
		Total	**197**	**125**	**122**	**126**

Table 024: Qualitative Impact Assessment based on Statistics of each question asked



Graph 008: Infrastructure for Water Supply to Toilets

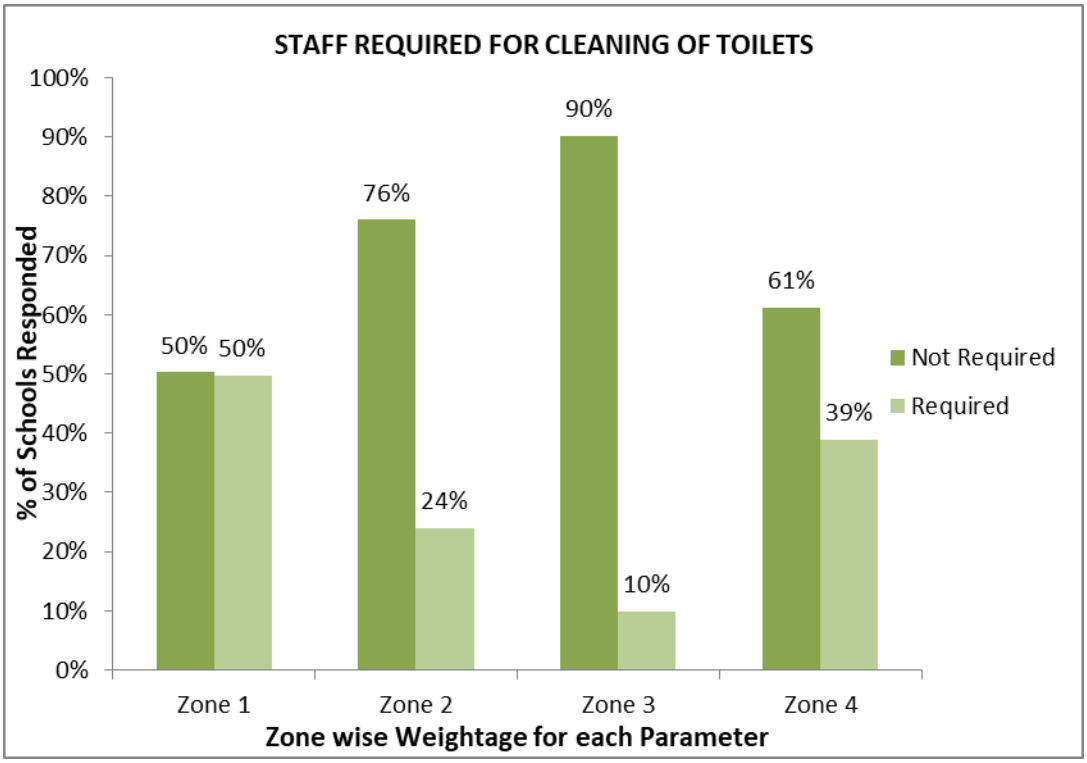
8.4.3 Cleaning Staff Availability

QUANTITATIVE IMPACT ASSESSSMENT FOR THE AFFORDABILITY						
S.No	**Question Asked**	**Zone wise**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Do you agree that your school needs a major upgrade to be able to maintain the toilets more effectively in the areas of Cleaning Staff Availability**	**Zone 1**	197	197	0	100.00%
		Zone 2	127	125	2	98.43%
		Zone 3	122	122	0	100.00%
		Zone 4	126	126	0	100.00%
		Total	**572**	**570**	**2**	99.65%

Table 025: Quantitative Impact Assessment for the Affordability-Cleaning Staff Availability

QUALITATIVE IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
S.No	**Question Asked**	**Zone wise**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			No. Responded	**No. Responded**	**No. Responded**	**No. Responded**
	Cleaning Staff Availability	**Not Required**	99	95	110	77
		Required	98	30	12	49
		Total	**197**	**125**	**122**	**126**

Table 026: Qualitative Impact Assessment based on Statistics of each question asked



Graph 009: Requirement of Staff for Cleaning of Toilets

8.5: SOCIO IMPACT ASSESSMENT

To understand the post-implications of the "Swachh Bharat Swachh Vidyalay Abhiyan" within the Social Environment comprising not only of the school population covered but also among the societies situated within the vicinity of these schools, a study was organized by the survey team with a questionnaire covering several parameters required to assess the socio impact.

The study revealed that social transformations were observed along with appreciations and recommendations from all corners of the society i. e. from students, school management & staff and also the other citizens of the respective villages. The feedback on the above parameters form the beneficiaries have been analysed on percentage basis and have been compared within the zones the representation has been displayed in various formats for each parameters as elaborated under each section below:

8.5.1: Improvement of School Cleanliness upon Implementation of Toilet Facility:

Based on the feedback from the above parameter the assessment towards improvement of school cleanliness was done by scaling the improvement in the categories of Partial Improvement, Good Improvement and Drastic Improvement as given below in the table & graph. The table indicates the quantitative analysis whereas the table & graph indicates the qualitative analysis.

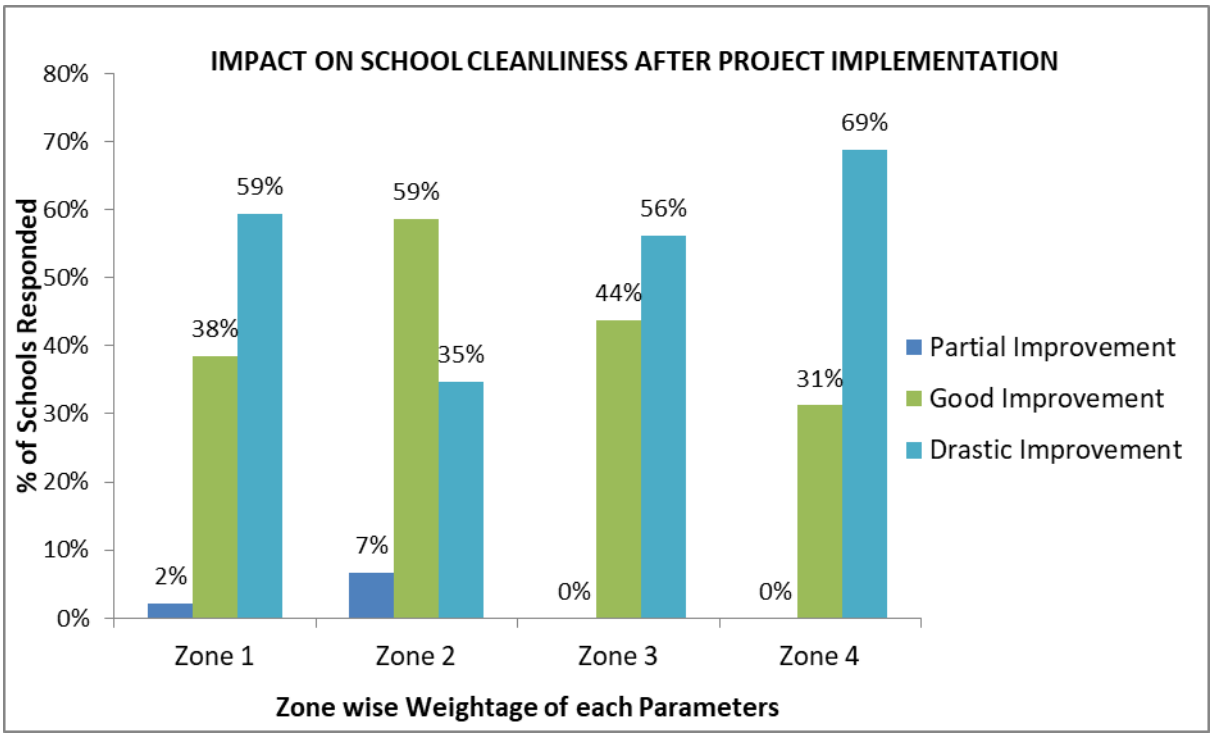
QUANTITATIVE IMPACT ON SCHOOL CLEANLINESS AFTER PROJECT IMPLEMENTATION						
S.No	**Question Asked**	**Zone Wise**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Has the school become cleaner after implementation of toilet facility**	**Zone 1**	197	182	15	92%
		Zone 2	127	121	6	95%
		Zone 3	122	105	17	86%
		Zone 4	126	112	14	89%
		Total	**572**	**520**	**52**	91%

Table 027 : Quantitative Impact On School Cleanliness After Project Implementation

QUALITATIVE IMPACT ASSESSMENT BASED ON STATISTIC OF EACH QUESTION						
S.No	**Question Asked**	**Zone wise**	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**
			No. Responded	**No. Responded**	**No. Responded**	**No. Responded**
1	**Has the school become cleaner after implementation of toilet facility**	**Partial Improvement**	4	8	0	0
		Good Improvement	70	71	46	35
		Drastic Improvement	108	42	59	77
		Total	**182**	**121**	**105**	**112**

Table 028: Qualitative Impact Assessment Based On Statistic Of Each Question

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 520 among the 572 surveyed, hence the analysis has been done for 520 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded.



Graph 010: Quantitative Impact On School Cleanliness After Project Implementation

The Study based on the survey conducted reveals that:

- The cleanliness in schools and awareness about cleanliness has shown good improvement among school children.
- Around 95% improvements in the school cleanliness conditions have been observed either good or drastically from the survey conducted in sample of 520 schools.

The overall impact shows that a 55% Drastic Improvement & 43% good Improvement in the school cleanliness. Total accounting to 98% which shows a good outcome of the project implemented.

8.5.2: Impact on Attendance of School on Availability of Toilets–Boys

Based on the feedbacks, the assessment towards improvement of school attendance on availability of toilet facility within the school premises was done. The assessment was conducted separately for boys and girls analysing on the parameter scale of Partial Improvement, Good Improvement and Drastic Improvement as given below in the table & graph. The study of boy's category has been provided below with the table indicating quantitative analysis whereas another table & graph indicating the qualitative analysis.

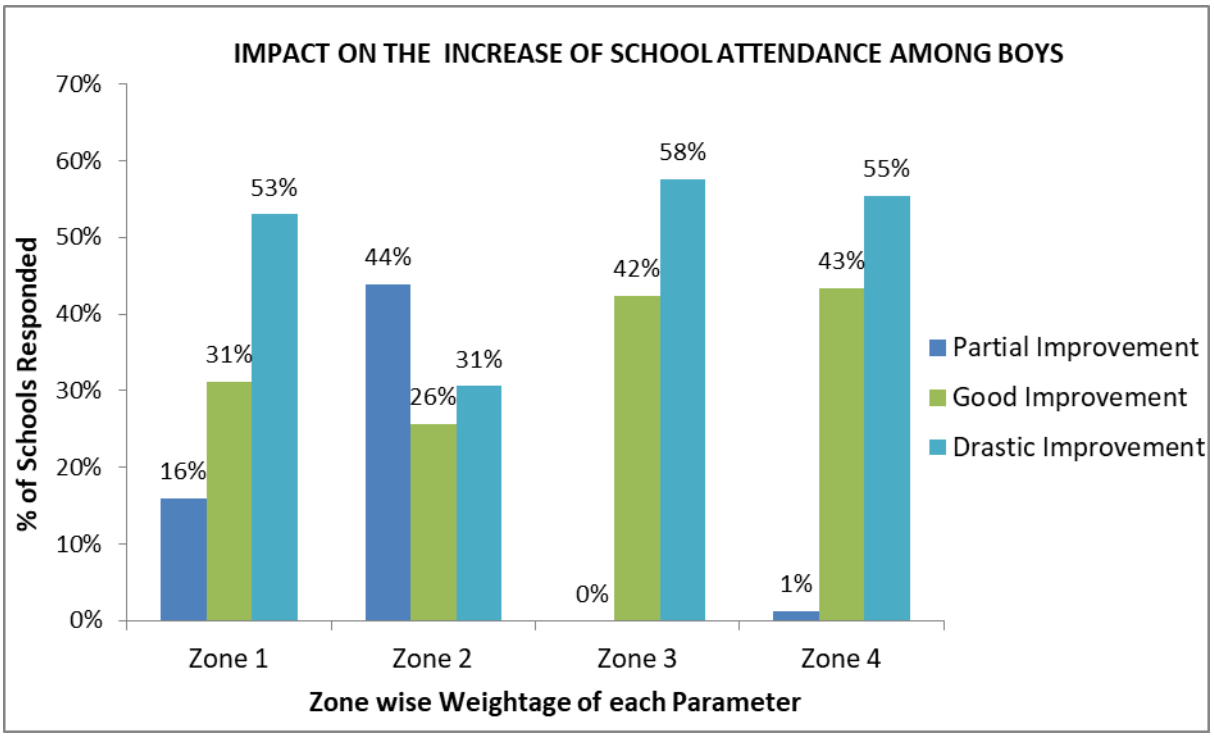
IMPACT ON THE INCREASE OF SCHOOL ATTENDANCE AMONG BOYS						
S.No	**Question Asked**	**ZONE**	**No of Schools Surveyed**	**No of Schools Responded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Have these toilets made an impact in the increase of school attendance - Boys**	**Zone 1**	197	151	46	76.65%
		Zone 2	127	121	6	95.28%
		Zone 3	122	92	30	75.41%
		Zone 4	126	83	43	65.87%
		Total	**572**	**447**	**125**	78.15%

Table 029 : Quantitative Impact on the Increase of School Attendance among Boys

IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
			Zone 1	**Zone 2**	**Zone 3**	**Zone 4**
S.No	**Question Asked**	**Zone wise**	**No. Responded**	**No. Responded**	**No. Responded**	**No. Responded**
1	**Have these toilets made an impact in the increase of school attendance – Boys**	**Partial Improvement**	24	53	0	1
		Good Improvement	47	31	39	36
		Drastic Improvement	80	37	53	46
		Total	**151**	**121**	**92**	**83**

Table 030 : Qualitative Impact on the Increase of School Attendance among Boys

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 447 among the 572 surveyed, hence the analysis has been done for 447 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded.



Graph 011: Quantitative Impact on the Increase of School Attendance among Boys

The Study based on the survey conducted reveals that:

- A reasonable growth in attendance of the students has been observed among all the Zones covered under the impact study, whereas, few schools in Zone-2 @ 44% had also responded with remarks that indicated that not much difference was observed within the boys schools.
- Around 36% good improvement and 49% drastic improvement has been observed due to the implementation of the projects among the boys students out of the sample survey conducted in the 447 schools.
- The increase in the attendance of schools is on account of reduced illness from the earlier unhygienic conditions due to open defecation

The overall attendance in boys has increased considerably among the schools due to the implementation of the project.

8.5.3: Impact on Increase of School Attendance among Girls

Emphasised study was conducted during the survey on the impact of the attendance of the girl students on construction of toilets at their respective schools. The feedbacks were collected from the schools based on the ratings done on the scale from Partial Improvement, Good improvement and Improved drastically as mentioned in the below tables and graph:

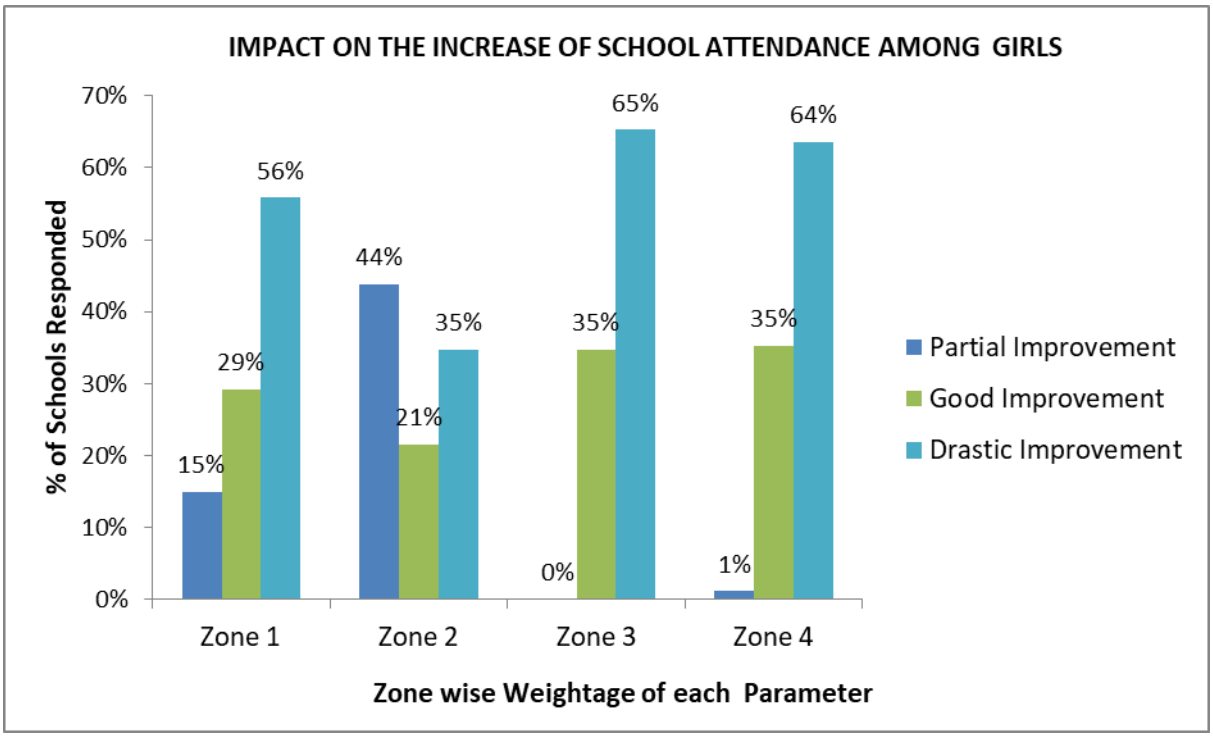
IMPACT ON THE INCREASE OF SCHOOL ATTENDANCE AMONG GIRLS						
S.No	**Question Asked**	**ZONE**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	Have these toilets made an impact in the increase of school attendance - Girls	**Zone 1**	197	154	43	78.17%
		Zone 2	127	121	6	95.28%
		Zone 3	122	95	27	77.87%
		Zone 4	126	88	38	69.84%
		Total	**572**	**458**	114	80.07%

Table 031 : Quantitative Impact on the Increase of School Attendance among Girls

IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
			Zone 1	**Zone 2**	**Zone 3**	**Zone 4**
Sl.No	**Question Asked**		**No. Responded**	**No. Responded**	**No. Responded**	**No. Responded**
1	**Have these toilets made an impact in the increase of school attendance - Girls**	**Partial Improvement**	23	53	0	1
		Good Improvement	45	26	33	31
		Drastic Improvement	86	42	62	56
		Total	**154**	**121**	**95**	**88**

Table 032 : Qualitative Impact on the Increase of School Attendance among Girls

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 458 among the 572 surveyed, hence the analysis has been done for 458 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded.



Graph 012: Quantitative Impact on the Increase of School Attendance among Girls

The Study based on the survey conducted reveals that:

- Privilege of toilets to the Girl students was appreciated both by the management and students of the school. Majority of schools observed increase in strength of school attendance especially Girl students.
- Around **85% improvement** in the girls student attendance have been observed throughout the four zones which clearly shows the positive influence and social security of girl students to attend the school.
- Around 30% good improvement and 55% drastic improvement has been observed due to the implementation of the projects among the boys students out of the sample survey conducted in the 458 schools. **A 10% more attendance than boy's students has been observed in the girl students.**
- Reason for the girls attendance is due to availability of toilets, which was a major cause of their absenteeism for the schools.

8.5.4 Impact on Change of Attitude and Civic Sense Orientation among Students

Based on the feedback for civic sense enhancement the ratings have been done on the scale from Partial Improvement, Good improvement and Improved drastically as given below in the graph. This study was included to understand the adoption of hygienic and civic sense among the students and to assess the sustainability of these civic practices. The statistical representation is as below:

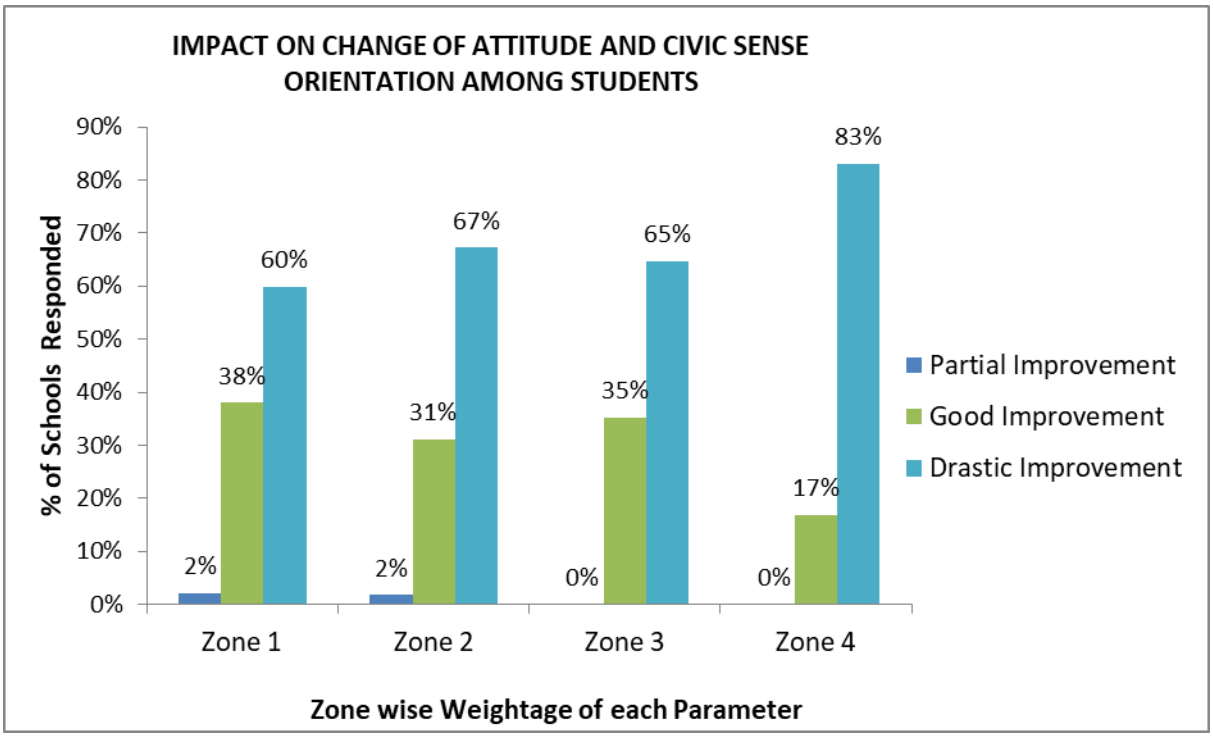
IMPACT ON CHANGE OF ATTITUDE & CIVIC SENSE ORIENTATION AMONG STUDENTS						
S.No	**Question Asked**	**ZONE**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Has the change of attitude and civic sense orientation observed within students**	**Zone 1**	197	187	10	94.92%
		Zone 2	127	116	11	91.34%
		Zone 3	122	105	17	86.07%
		Zone 4	126	124	2	98.41%
		Total	**572**	**532**	40	93.01%

Table 033: Quantitative Impact on Change of Attitude & Civic Sense Orientation among Students

IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
			Zone 1	**Zone 2**	**Zone 3**	**Zone 4**
Sl.No	**Question Asked**		**No. Responded**	**No. Responded**	**No. Responded**	**No. Responded**
2	**Has the change of attitude and civic sense orientation observed within students**	**Partial Improvement**	4	2	0	0
		Good Improvement	71	36	37	21
		Drastic Improvement	112	78	68	103
		Total	**187**	**116**	**105**	**124**

Table 034: Qualitative Impact on Change of Attitude & Civic Sense Orientation among Students

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 532 among the 572 surveyed, hence the analysis has been done for 532 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded.



Graph 013: Quantitative Impact on change of attitude & civic sense orientation among students

The Study based on the survey conducted reveals that:

- The hygienic and sanitation levels increased not only in the schools, but development was also observed among the citizens of the surrounding villages. This programme has also encouraged citizens to develop and construct toilet facility within their residential compounds.
- It is observed that around 69**%** of the total feedbacks has shown drastic improvement in the change of attitude and development of civic sense within the students.
- A very negligible amount of schools i.e., approximately 1 to 2% observed partial development in civic & hygienic standards within their pupils.

8.5.5 IMPACT ON DEVELOPMENT IN SOCIAL BEHAVIOUR AMONG STUDENTS

Evaluation of social behavior among the students was among the main objectives of this study and mission. Based upon the feedback collected from the schools during the survey, development in social behavior was assessed considering the three parameters of Partial Development, Good Development and Drastic Development. The observations are drawn in tables and graphs as below:

\

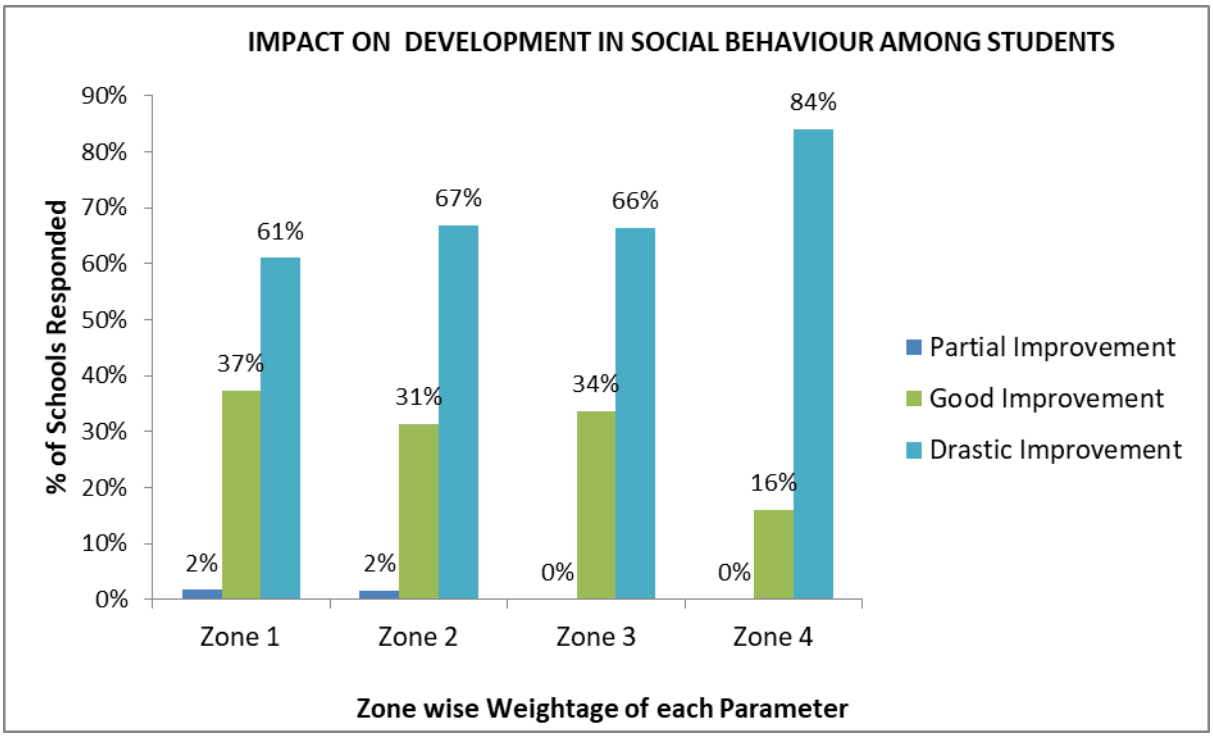
IMPACT ON DEVELOPMENT IN SOCIAL BEHAVIOUR AMONG STUDENTS						
S.No	**Question Asked**	**ZONE**	**No of Schools Surveyed**	**No of Schools Responded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Has this practice brought any development in social behaviour of the students**	**Zone 1**	197	177	20	89.85%
		Zone 2	127	121	6	95.28%
		Zone 3	122	104	18	85.25%
		Zone 4	126	125	1	99.21%
		Total	**572**	**527**	45	92.13%

Table 035: Quantitative Impact on Development in Social Behaviour among Students

IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
			Zone 1	**Zone 2**	**Zone 3**	**Zone 4**
Sl.No	**Question Asked**		**No. Responded**	**No. Responded**	**No. Responded**	**No. Responded**
1	**Has this practice brought any development in social behaviour of the students**	**Partial Improvement**	3	2	0	0
		Good Improvement	66	38	35	20
		Drastic Improvement	108	81	69	105
		Total	**177**	**121**	**104**	**125**

Table 036: Qualitative Impact on Development in Social Behaviour among Students

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 527 among the 572 surveyed, hence the analysis has been done for 527 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded.



Graph 014: Quantitative Impact on Development in Social Behaviour among Students

The Study based on the survey conducted reveals that:

- Overall the survey revealed that a remarkable transformation has been observed within the students in their social behavioral approach. Ultimately this development was also observed in individual families and subsequently within the communities.
- Around **70% drastic improvement** in the social behavior have been observed from the survey conducted in sample of 527 schools.
- The implementation of projects and its uses have enlightened the students the need of the toilets in community also and increased their level of involvement in the society for setup of common facilities in their societies.
- The implementation of project also increased the self confidence in the male & female students and also their concentration in studies, cultural and sports activities.

8.5.6 IMPACT ON THE SPREAD OF SWACHHATHA MESSAGE AMONG STUDENT FAMILY MEMBERS

Based on the feedback from the set parameters, the assessment towards spread of message within the family members regarding the benefits of usage of toilets and development of sense of swachhatha was done by scaling the improvement in the categories of Partial Improvement, Good Improvement and Drastic Improvement as given below in the table & graph. The table indicates the quantitative analysis whereas the table & graph indicates the qualitative analysis.

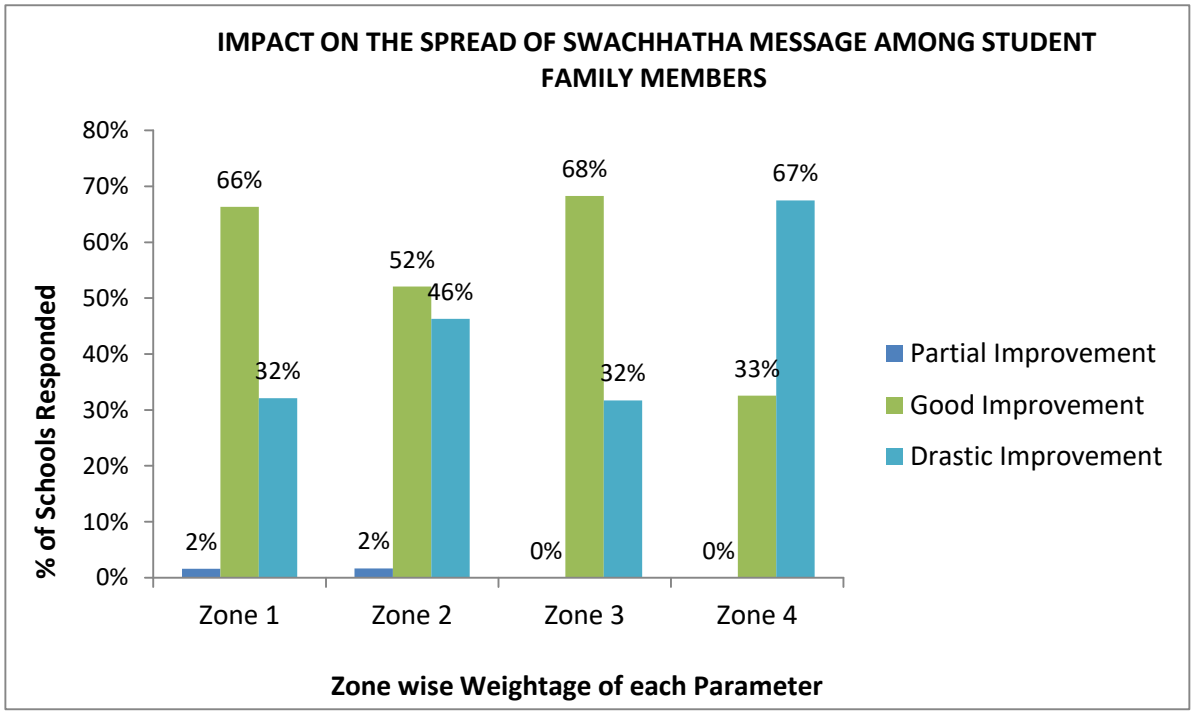
IMPACT ON THE SPREAD OF SWACHHATHA MESSAGE AMONG STUDENT FAMILY MEMBERS						
S.No	**Question Asked**	**ZONE**	**No of Schools Surveyed**	**No of Schools Repsonded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Has implementation of these toilets helped in spreading the message of usage of toilets and sense of Swachhtha within other family members of student**	**Zone 1**	197	187	10	94.92%
		Zone 2	127	121	6	95.28%
		Zone 3	122	104	18	85.25%
		Zone 4	126	126	0	100.00%
		Total	**572**	**538**	34	94.06%

Table 037: Quantitative Impact on the Spread of Message of Usage of Toilets & Sense of Swachhatha within Other Family Members of Students

IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
			Zone 1	**Zone 2**	**Zone 3**	**Zone 4**
Sl.No	**Question Asked**		**No. Responded**	**No. Responded**	**No. Responded**	**No. Responded**
1	**Has implementation of these toilets helped in spreading the message of usage of toilets and sense of Swachhtha within other family members of student**	**Partial Improvement**	3	2	0	0
		Good Improvement	124	63	71	41
		Drastic Improvement	60	56	33	85
		Total	**187**	**121**	**104**	**126**

Table 038: Qualiitative Impact on the Spread of Message of Usage of Toilets & Sense of Swachhatha within Other Family Members of Students

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 538 among the 572 surveyed, hence the analysis has been done for 538 responded schools considering it as 100%. The percentage weightage has been calculated only for the schools responded.



Graph 015: Quantitative Impact on the Spread of Message of Usage of Toilets & Sense of Swachhatha within other Family Members of Students

The Study based on the survey conducted reveals that:

- The construction of toilets in schools has brought in responsible social changes within the students and their family members.
- Around 54% good improvement has been seen in spreading the message among family members have been observed from the survey conducted in sample of 538 schools.
- The students have also educated their family about the importance of hygienic conditions and use of toilets rather than open defection.

8.5.7 IMPACT ON THE SPREAD OF HYGIENE MESSAGE AMONG CITIZENS OF VILLAGE

The basic objective of inculcating social behavioural change within the students was to build a strong foundation towards a hygienic and society with strong civic sense. Based on the feedback from the set parameters, the assessment towards spread of message within the society regarding the benefits of usage of toilets and development of sense of hygeine was done by scaling the improvement in the categories of Partial Improvement, Good Improvement and Drastic Improvement as given below in the table & graph. The table indicates the quantitative analysis whereas the table & graph indicates the qualitative analysis.

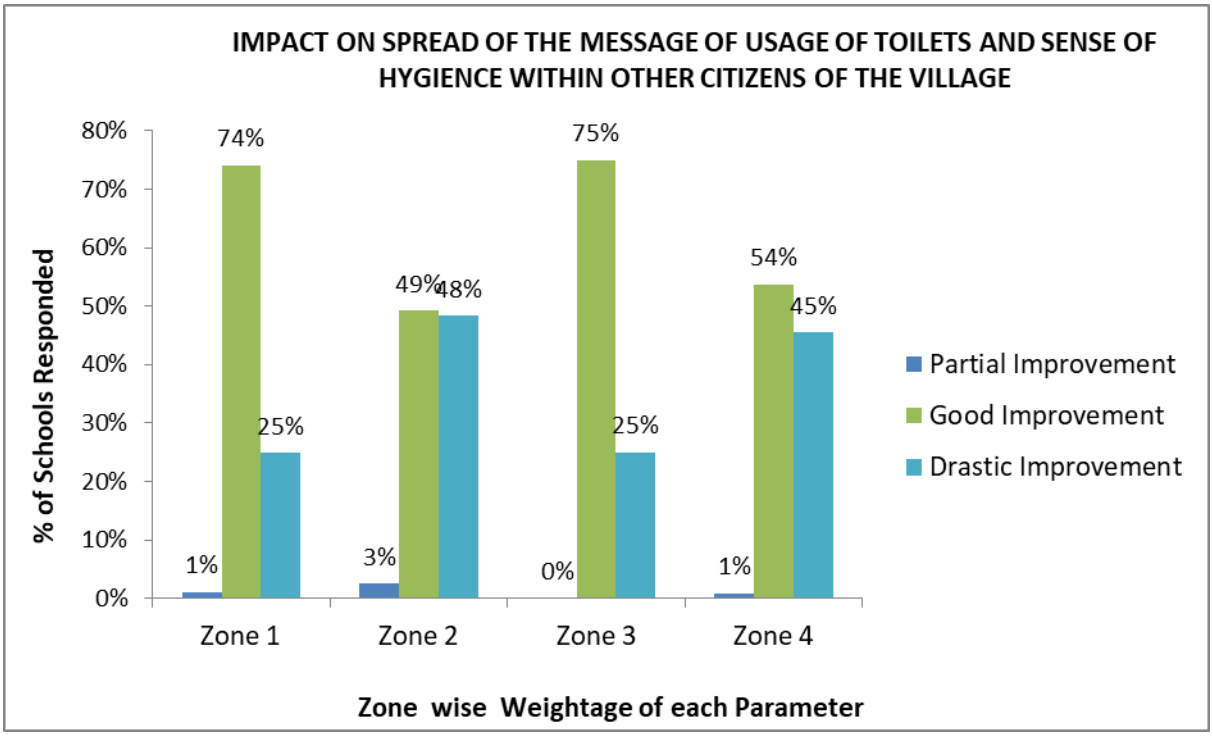
IMPACT ON SPREAD OF HYGIENE MESSAGE AMONG CITIZENS OF VILLAGE						
S.No	**Question Asked**	**ZONE**	**No of Schools Surveyed**	**No of Schools Responded**	**No of Schools Not Responded**	**% of Schools Responded**
1	**Has implementation of these toilets helped in spreading the message of usage of toilets and sense of hygiene within other citizens of the Village**	**Zone 1**	197	185	12	93.91%
		Zone 2	127	120	7	94.49%
		Zone 3	122	104	18	85.25%
		Zone 4	126	121	5	96.03%
		Total	**572**	**530**	42	92.66%

Table 039: Quantitative Impact on the Spread of Message of Usage of Toilets & Sense of Hygiene within Other Citizens of Village

IMPACT ASSESSEMENT BASED ON STATISTICS OF EACH QUESTIONS ASKED						
			Zone 1	**Zone 2**	**Zone 3**	**Zone 4**
Sl.No	**Question Asked**		**No. Responded**	**No. Responded**	**No. Responded**	**No. Responded**
1	**Has implementation of these toilets helped in spreading the message of usage of toilets and sense of hygiene within other citizens of the Village**	**Partial Improvement**	2	3	0	1
		Good Improvement	137	59	78	65
		Drastic Improvement	46	58	26	55
		Total	**185**	**120**	**104**	**121**

Table 040: Qualitative Impact on the Spread of Message of Usage of Toilets & Sense of Hygiene within Other Citizens of Village

Based on the Quantitative and Qualitative survey the total schools responded for the above question were 530 among the 572 surveyed, hence the analysis has been done for 530 responded schools considering it as 100%. The percentage has been calculated only for the schools responded i.e., **530**.



Graph 016: Quantitative Impact on the Spread of Message of Usage of Toilets & Sense of Hygiene Within other Citizens of Village

The Study based on the survey conducted reveals that:

- The objective of the Swachhatha Mission has been successful by large and the social transformation in terms of hygienic standards has increased within our society.
- Around **63% good improvement** has been seen in spreading the message among family members have been observed from the survey conducted in sample of 530 schools.
- The students have also educated their family about the importance of hygienic conditions and use of toilets and subsequently this message has made an impact on the other citizens of the village.

11.0 OUTCOMES OF THE STUDY

11.1 Success of the project

- The outcomes of the project was validated based upon the study made in 572 schools across the state where toilets were constructed by Power Finance Corporation with the support of AP District Administration & Hindustan Pre-Fab Ltd., under Conventional & Pre-Fabricated models respectively.

- The methodology adopted for the study based on quantitative analysis and subsequently qualitative analysis from the defined parameters including quality of construction, facilities associated for the maintenance of the toilets, its impact on the students of the school and its implications on the society.

- Overall during the study it was observed that most of the toilets were effectively put in use and the students were actively participating in usage of the facility.
    - More than 95% of the toilets were found to be functional.
    - Water resources and plumbing facilities were found to be well connected.
    - The disposable facilities of these toilets were found to be well in place and hygienically maintained.
    - School management were found to cautious enough and actively involved in maintaining the hygienic standards of these toilets.

- Overall transformation was observed through socio behavioural changes within the students, insight of the school management. Subsequently transformations carried to the family members which ultimately put together made an impact in the socio conditions of the society.

  Hereby it is concluded that the initiative driven by Power Finance Corporation under the "Swachh Bharat Swachh Vidyalay Abhiyan brought a successful outcome beyond the anticipated levels.