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A Study on Real-Time Governance Society with Special Reference to Andhra Pradesh

Vijaya Bharathi. G^1 and Sudhakar. P^2

ABSTRACT

Andhra Pradesh is the pioneering state in launching the new service system of Real-Time Governance Society (RTGS) which measures the effectiveness of the services delivered. One of the major issues of governance in India is increasing inefficiency in the delivery of public services at the pace of rising expectations from the public. Implementing an effective system of good governance is only the way to increase the efficiency of service delivery with regard to the opportunities in both social and economic activities which ultimately helps to reduce the poverty. The emphasis, therefore, comes to the major factors in good governance viz, inefficient public service delivery, corruption, delay in services, random and skewed welfare distribution due to lack of proper information. The Andhra Pradesh government has taken a lead by creating a real-time dashboard that measures the effectiveness of the services delivered in the state. Real-time governance is an attempt by the government to improve the delivery of services in a responsible manner through data analytics, beneficiary feedback, project monitoring and process re-engineering of welfare provisions. Hence, the present study made an attempt to know the importance of Real-Time governance and to identify the perceptions of beneficiaries regarding RTGS. To analyze the impact of RTGS, both primary and secondary sources were used to gather the data. Primary data is collected through the primary sources of students, employees, farmers and women by using the structured questionnaire and the secondary data is gathered from Government reports on socio-economic surveys and websites concerned.

Keywords: Real-time governance, Andhra Pradesh, governance, public services.

I. Introduction

Real-Time Governance Society is the most powerful and intellectual initiative introduced with the main aim of engaging and including the citizens in the decision making policy. RTGS of Andhra Pradesh is the biggest Real-Time Control Room in Asia. At first, the RTGS is formed on 6th September 2017 and started its operations in India by the state of Andhra Pradesh from

¹ Author is an Associate Professor, Department of Commerce, Yogi Vemana University, Kadapa, Andhra Pradesh, India.

² Author is a Research Scholar, Department of Commerce, Yogi Vemana University, Kadapa, Andhra Pradesh, India.

26th Nov 2017 with a motto of "People First" to ensure the satisfaction of citizens in overall governance and the service delivery system. It functions as a new institutional framework devised by the Government of Andhra Pradesh to bring positive changes in governance, public administration and management leveraging the tools of e-Governance, and electronic communication through technological applications for Real-Time grievance redressal. The major thematic areas of RTGS services are Spandana, People Hub, Land Hub, CFMS, and cloud hub to achieve transparency, accountability, and to make the public service delivery system more effective. RTGS helps the government to monitor all the schemes, keep vigilance on people and demand accountability from officials.

The idea behind institutionalizing the RTGS is the usage of electronic communication and technology to deploy an efficient system of e-governance in the state of Andhra Pradesh. It has 13 District centres and one State centre for reporting. Data from Andhra Pradesh regarding the weather forecasting and early warning research centre, drones, machine learning systems, biometric systems and other surveillance systems are collected and reported via the RTGS system in real-time.

(A) Backdrop

Real-Time Governance Society (RTGS) is an e-governance initiative of chief minister N. Chandrababu Naidu of the state of Andhra Pradesh in India. It was formed on 6th September 2017 and the Real-Time Governance department directly reports to the chief minister. The idea behind institutionalizing the system of Real-Time Governance Society (RTGS) is to use electronic communication and technology to deploy an efficient system of e-governance in the state of Andhra Pradesh. It has 13 district centres and 1 state centre for reporting. Data from Andhra Pradesh weather forecasting and early warning research centre, drones, machine learning systems, biometric systems and other surveillance systems are collected and reported via the RTGS system in real-time.

(B) Methodology

In order to accomplish the objectives, the present study is mainly based on both primary and secondary sources of information. The primary data has been collected mainly from an extensive field survey of the sample units. To obtain primary information, the personal interview has been conducted through well-designed questionnaires especially prepared in view of the objectives of the study. The secondary data is mainly collected from published and unpublished works on the related topics. Census reports, economic surveys, journals, newspapers were major sources for secondary information. The study was conducted in the

cities of Kadapa and Anantapur District of A.P with a sample size of 150 respondents. The data has collected from the students, employees, farmers and women by using the structured questionnaire. The scale was taken for the studies are having knowledge, no knowledge, Not responding. The subsequent analysis focused on the perceptions of beneficiaries regarding RTGS services. A convenient sampling method is employed. Statistical analyses were performed by using the Percentage method, Mean and Standard Deviation. SPSS was used to analyse the data.

II. CONCEPTUAL FRAMEWORK OF RTGS

The Real-Time Governance Society plays an important role in Andhra Pradesh. There is a positive impact of real-time governance in Andhra Pradesh. It can be revealed from the following:

- RTGS is connected to the "Spandana 1100" call centre. Therefore, once issues are reported by citizens at the call centre, they are entered into the database of the government and the start/end response time is calculated. The government is also able to understand how various issues are solved and time-taken to do it. It is also known as Parishkara Vedika and Grievances Redressal to solve four broad categories of grievances. They are Individual grievances, Community grievances, financial grievances, on-Financial grievances.
- RTGS launched a number of Apps with the objective of active engagement of citizenseach aimed to provide a platform for two-way communications between the citizen and
 the Government. The government of Andhra Pradesh through RTGS collects RealTime feedback from citizens on the quality of services they have availed.
- RTGS initiates satisfaction surveys and feedback from citizens is shared with the Chief Minister's office regularly to the respective secretaries/HOD of the department. Based on the feedback the concerned departments can undertake corrective measures so as to improve citizen satisfaction in the delivery of services.
- RTGS through its incidents and events monitoring activity can alert the state authority to take immediate action against the situation.
- RTGS as a part of its project monitoring activity can monitor by installing CCTV cams
 in case of high ended infrastructure projects like polavaram and other important
 projects. it enables to completion of the project without delay.
- RTGS has entered into a collaboration with ISRO to provide weather forecasting and

- early disaster warning services like agro-advisories, sea-state forecasting, thunderbolts, lightning, cyclones monitoring etc.,
- RTGS can also forecast the events like cyclones and depressions. It has succeeded in predicting and sending alerts to local administration regarding cyclones like Titli and Phethai. The Aware team of Real-Time Governance Society (RTGS) correctly predicted the course of Cyclone Titli accurately predicting its landfall on the coast of Srikakulam-above Kalingpatnam. Cyclone Titli made its landfall in the Pallesarathi village of Vajrapukothuru Mandal on the intervening night of Oct 10-11-2018.

Similarly, from the experience of Cyclone Titli, RTGS was able to handle Cyclone Phethai, which hit central coastal Andhra Pradesh near Kakinada on 17 Dec 2018. RTGS monitored the entire track of Cyclone Phethai right from its inception from a low-pressure system 1400 southeast of Bay of Bengal to the time it formed into a depression, deep depression and severe cyclone until it made landfall off AP Coast between Kakinada and Yanam.

Objectives of RTGS

- 1. People hub
- 2. Land hub
- 3. CFMS
- 4. Cloud hub
- 5. Spandana 1100

III. COMPONENTS OF REAL-TIME GOVERNANCE SOCIETY

1. Good Governance:

- **Spandana 1100(Parishkara Vedika):** It is a kind of grievance redressal call centre and communication platform. Through which citizens can register any kind of grievance by dialling 1100.
- Spandana 1902 The Spandana Call centre with the number 1902 is integrated to resolve grievances of availability and movement of essential commodities and other issues of Covid-19.
- **Spandana 14400(Anti-Corruption Bureau):** The Government is aimed to eradicate corruption at all levels as a part of it the Government launched a 24x7 call centre with toll-free number 14400 to enable people to lodge complaints with regard to corruption in government departments. The complaints will be looked into within 15-30 days. The call centre will forward the information to the Anti-Corruption Bureau of the concerned

district for necessary action.

- Spandana 14500 (Sand Reach) the Government launched a toll-free number 14500 to
 handle the complaints and grievances and to crack down on mafia-related sand supplies.
 People can call the toll-free number to lodge complaints with regard to irregularities in
 sand sales. According to which hoarding, smuggling and selling of sand at a higher
 price is a criminal offence.
- **Social media:** social media platforms like Twitter, Facebook; Instagram and LinkedIn are used extensively to reach people. Awareness about government campaigns, schemes and initiatives is spread effectively.
- **Print & Electronic Media:** print and electronic media play an important role in RTGS. The alert management system constantly monitors all print, electronic and digital media for any untoward incident in AP.

2. IoT & Surveillance

- **Drones:** drones are used for surveillance and to monitor emergency situations during natural calamities. Drones are also being used for spraying pesticides on crops and identifying land with ganja cultivation through aerial footage.
- Sensors: As part of RTGS, a million IoT devices and sensors are used through which massive data is collected regarding monitoring of streetlights, groundwater reports and the weather forecast.
- **Dashboards**: Real-Time Governance ecosystem aims at bringing a uniform platform using Real-Time dashboards on various performance indicators. Every minister's data is recorded on the dashboard including the time taken to clear files, this is reviewed by CM once every 15 days.
- Geotagging: Geotagging is the process of adding geographical identification by using
 Aadhaar authentication for land records in AP. as part of it Bhudaar and Bhuseva portal
 is launched, which makes land records available to people with unique identification
 numbers just like Aadhaar number. The integration of verified and updated land records
 will end litigation and corruption in land records and prevent tampering.
- **Biometric:** Biometric attendance and facial recognition is used to ensure authentication. Accurate records are maintained with the help of modern technology.

3. Infrastructure

- **AP fibergrid:** AP fibergrid provides high-speed internet connectivity, seamless telephone and television services at normal cost to every household in AP through this project.
- CC cams: RTGS as part of the projects monitoring and surveillance project is installing
 CCTV cams in important high-end infrastructure projects of the state like polavaram,
 important highway projects, flyovers, street crimes etc.
- **FSOC** (wireless): Free Space Optical Communication (FSOC) technology is used in AP to provide high-speed wireless internet by improving fibergrid connectivity to address the challenges of the river and railway crossings to connect those areas where fibercables cannot reach.
- **Digital Classrooms:** digital classrooms are introduced to provide effective methods of teaching through digital platforms. Students have shown better performances after lessons taken through digital teaching.
- **Aadhaar platform &applications:** the data in Aadhaar is used to ensure family level monitoring of services provided by the government.

4. Incidents

- ISRO: AP government through RTGS has entered into collaboration with the Indian Space Research Organization to provide in house meteorological services to Govt. of AP like weather forecasting, agro-advisories, sea-state forecasting, extreme weather events like thunderbolts, lightning, cyclones monitoring etc. RTGS-AWARE (AP Weather forecasting and Early Disaster Warning) uses advanced ensemble for weather forecasting.
- Sensors: As part of RTGS, a million IoT devices and sensors are used. Through which
 massive data is collected regarding monitoring of streetlights, groundwater report, and
 the weather forecast.
- Weather: accurate weather forecasting is possible with the help of sensors. Timely
 alerts and warnings can be sent out to citizens to ensure minimal damages and zero
 casualties.
- **Disaster control:** disaster preparedness to face natural calamities is ensured through Real-Time communication and exchange of data between government departments.
- SEOC: A State Emergency Operations Centre (SEOC) is established to tackle

emergency situations in an efficient manner. it is equipped to monitor short-range, medium-range and long-range weather-related natural hazards such as thunderstorms, floods, cyclones, earthquakes etc in multiple locations.

• Incidents & Events: RTGS as part of its events and incidents monitoring activity helps in quick resolutions of an event or an incident in any part of the state. RTGS constantly monitors all major incidents in the state and responds with institutional support in case of distress or an emergency situation.

IV. PROFILE OF THE STUDY AREA

Kadapa district is located between 13°43'and 15°15'North latitude and 79°47'and 80°47'longitude. It is bounded by Kurnool district on the North, Chittoor district on the South, Nellore district on the East and Anantapuramu district on the west. The geographical area of the district is 15,359 sq mm. The average annual rainfall is around 700 mm. The major soils in the district include red sandy and red clay (53 per cent) and black clay soils (47 per cent).

Anantapur district lies between 13°40' and 15°15' North latitude and 76°51' and 78°30' East longitude. It shares common boundaries with Bellary, Kurnool districts on the East and North respectively, Kadapa and Kolar district of Karnataka on South and West respectively. Kadapa and Kolar district of Karnataka on South and West respectively. The geographical location of the district is in such a way that it gets less rain creating agricultural conditions more unpredictable. The geographical area is 19,130 sq km. It Northern central portions are a high plateau, generally undulating with large granite rocks or low hill ranges. In the Southern portion of the district, the surface is more hilly, the plateau there rising to 2600' above the sea level. Generally, the drought-prone district receives an average annual rainfall of just 580 mm. It is known to be the second driest area in the country after the Jaisalmer district of Rajasthan.

V. RESULTS AND DISCUSSION

Demographic Characteristics of sample respondents:

In order to provide a precise picture of the profile of the respondents selected for the study, five parameters were selected and analysed. This includes age, gender, educational background, occupation, monthly income.

Table I

Distribution of Respondents by their Demographic Characteristics

Sl. No	Aspects related to Demographi Characteristics	cNo. of respondents (n:150)	Percentage
1.	Age		
	0-20	35	23.4
	20-40	68	45.3
	40-60	27	18.0
	60 and above	20	13.3
2.	Gender		
	Male	65	43.3
	Female	85	56.7
3.	Education		
	Illiterate	27	18.0
	Below Graduate	72	48.0
	Above Graduate	51	34.0
4.	Occupation		
	Farmer	12	8.0
	Unemployed	38	25.3
	Employed	25	16.7
	Business	23	15.3
	Students	42	28.0
	Others	10	6.7
5.	Income level		
	Up to 10000	58	38.6

10000-20000	37	24.7
20000-30000	29	19.3
30000-40000	17	11.4
Above 40000	9	6.0

Source: Primary Data

Demographic characteristics, such as age, gender, education, occupation and income level are the most important factors to study. Demography refers to the vital and measurable statistics of the population.

Table I the distribution of respondents of Kadapa and Anantapur districts have been shown. The age of the Respondents can normally range between 0 to 60 years and above. The number of male respondents was 65 and the number of female respondents was 85. Thus, the total number of male and female respondents are 150. The above table shows that amongst the respondents 27 was illiterate. Whereas 72 and 51 respondents had their education up to graduate and above graduate. As shown in table1 in this study respondents engaged in business were 23. Where 38 are unemployed and 25 are employed.12 respondents were engaged in agriculture, 42 respondents are students and 10 others. The above table shows that 58 respondents are having monthly income of less than Rs.10, 000/-. Whereas 37 respondents are having their monthly income between Rs.10, 000/- and Rs.20, 000/-, 29 respondents are having their monthly income between Rs.20, 000/- and Rs.30, 000/-, 17 respondents are having their monthly income between Rs.30, 000/- and 40,000/-. In the end, 9 respondents are having a monthly income of more than Rs. 40,000/-.

1. Good Governance

Good governance is crucial for inclusive growth. Without good governance, the mere launching of programs and schemes has limited application in the development of economies.

Table II

Knowledge level of sample respondents with regards to good governance

	Having knowledge No		wledge No knowledge		Not Responded		Total	
providers	F	%	F	%	F	%	F	%

Spandana 1100	134	89.3	9	6	7	4.7	150	100
Spandana 1902	63	42	40	26.7	47	31.3	150	100
Spandana 14400	95	63.3	30	20	25	16.7	150	100
Spandana 14500	90	60	50	33.3	10	6.7	150	100
social media	122	81.3	20	13.3	8	5.4	150	100
Print & Electronic Media	112	74.7	18	12	20	13.3	150	100

The awareness level of the sample respondents concerning the various service providers is given in Table II and the per cent wise distribution is shown in figure 1. it was found that of the 150 respondents about 89.3 per cent were aware of the Spandana 1100 service providers, while 6 per cent did not know of the same. The Spandana 1902 was known to 42 per cent of the respondents while it remained unknown to 26.7 per cent of the respondents. Spandana 14400 was known to more people in the group with 63.3 per cent having knowledge and 20 per cent having no knowledge. The case of Spandana 14500 was also good with 60 per cent of the respondents aware of it while 33.3 per cent were unaware of it. Social media and print & electronic media were known to 81.3 per cent and 74.7 per cent, while 13.3 per cent and 12 per cent had no knowledge of them respectively. Several respondents did not take part in the survey and were 4.7 per cent, 31.3 per cent, 16.7 per cent, 6.7 per cent,5.4 per cent and 13.3 per cent in each group.

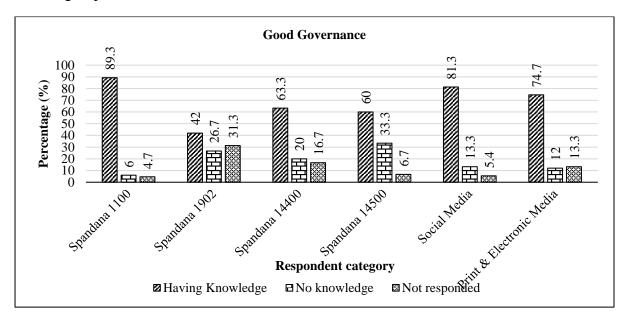


Fig.1 Knowledge level of sample respondents with regards to good governance in percentage

The statistical analysis for the respondents of each of the service providers is given in Table III The number of sample observation groups and means for all the service providers was found to be 3 and 50. The standard deviations ranged between 11.790 and 72.753 for the different service providers. Spandana 1902 showed the lowest standard deviation of 11.790 and Spandana 1100 had the highest standard deviation of 72.753. This implies that there was lower variation between the number of respondents in each category in the case of Spandana 1902 while the variability with the Spandana 1100 was high, with most of the respondents aware of it leading to a higher value of standard deviation.

Table III

Descriptive statistics regarding good governance

Descriptive Statistics			
	N	Mean	Std. Deviation
Spandana 1100	3	50.00	72.753
Spandana 1902	3	50.00	11.790
Spandana 14400	3	50.00	39.051
Spandana 14500	3	50.00	40.000
Social media	3	50.00	62.642
Print & Electronic	3	50.00	53.703
Valid N (listwise)	3		

2. IoT and Surveillance

It is predicted that IoT device installations in the agriculture sector will increase from 30 million in 2015 to 75 million by 2020. The use of IoT will enable smart agriculture which is expected to deliver high operational efficiency and high yield.

Table IV

Knowledge level of sample respondents with regards to IoT and surveillance

Service Having knowledge	No knowledge	Not Responded	Total
--------------------------	--------------	---------------	-------

providers	F	%	F	%	F	%	F	%
Drones	80	53.3	48	32	22	14.7	150	100
Sensors	68	45.3	62	41.3	20	13.4	150	100
Dash boards	72	48	50	33.3	28	18.7	150	100
Geotagging	38	25.3	96	64	16	10.7	150	100
Biometric	138	92	8	5.3	4	2.7	150	100

The information level of the sample respondents regarding IoT and surveillance is given in Table IV and the percentage-wise distribution is shown in figure 2. It was noticed that of the 150 respondents about 53.3 per cent were aware of drones, while 32 per cent were unaware of the same. The sensors were known to 45.3 per cent of the respondents and 41.3 per cent did not have their knowledge. 48 per cent of respondents had knowledge of dashboards while 33.3% had no knowledge. The knowledge of Geo-tagging was the least, with merely 25.3 per cent of respondents having knowledge of it and 64 per cent of respondents unaware of it. Biometric was known to the largest number of respondents 92 per cent and hardly 5.3 per cent did not know it. Again, many people from the sample of 150 respondents did not take part in the survey and were 14.7 per cent, 13.4 per cent, 18.7 per cent, 10.7 per cent, and 2.7 per cent in each group.

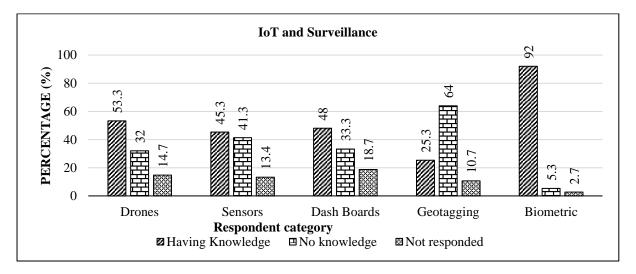


Fig.2 Knowledge level of sample respondents with regards to IoT and surveillance in percentage

The statistical analysis for the respondents for IoT and surveillance is given in Table V. The

number of samples and means for all the groups was found to be 3 and 50. The standard deviations varied between 22.00 and 76.236 for the different groups. The dashboards group showed the lowest standard deviation of 22.00 and the Biometric group had the largest standard deviation of 76.236. The smaller value of standard deviation in the dashboard group was because there was less variation between the number of respondents having knowledge, having no knowledge and non-responsive respondents. The variability in the biometric group was large, with most of the respondents aware of it leading to a higher value of standard deviation.

Table V

Descriptive statistics regarding IoT and surveillance

Descriptive Statistics						
	1	N	Mean	Std. Deviation		
Drones	3	3	50.00	29.052		
Sensors	3	3	50.00	26.153		
Dash Boards	3	3	50.00	22.000		
Geo tagging	3	3	50.00	41.328		
Biometric	3	3	50.00	76.236		
Valid N (listwise)	3	3				

3. Infrastructure

The digital infrastructure facilitates the farmers to unleash their maximum potential for increasing their profitability by accessing equitable markets and rural businesses through value-added services.

Table VI

Knowledge level of sample respondents with regards to infrastructure

Service	Having kr	nowledge	No knowle	edge	Not Respo	onded	Total	
providers	Number	%	Number	%	Number	%	Number	%
AP fiber grid	78	52	43	28.7	29	19.3	150	100

CC cams	97	64.7	33	22	20	13.3	150	100
FSOC (wireless)	38	25.3	58	38.7	54	36	150	100
Digital Classrooms	128	85.4	11	7.3	11	7.3	150	100
Aadhaar platform& application	67	44.7	57	38	26	17.3	150	100

The information level of the sample respondents regarding digital infrastructure is given in Table VI and percentage-wise in figure 3. It was noticed that of the 150 respondents about 52 per cent were aware of the AP fibergrid, while 28.7 per cent were unaware of the same. Almost 64.7 per cent of respondents had information about the CC cams while 22 per cent did not have their knowledge. FSOC (Wireless) was known to some respondents as 25.3 per cent. A substantial number of respondents 38.7 per cent were not aware of FSOC (Wireless). The knowledge of Digital classrooms was the highest with 85.4 per cent of respondents having knowledge of the same. The number of respondents not knowing digital classrooms was small 7.3 per cent. The Aadhaar platform and its related applications were known to a lesser proportion 44.7 per cent of the respondents with 38 per cent of respondents not knowing it. The number of the respondents who did not take part in the survey was 19.3 per cent, 13.3 per cent, 36 per cent, 7.3 per cent, and 17.3 per cent in each group.

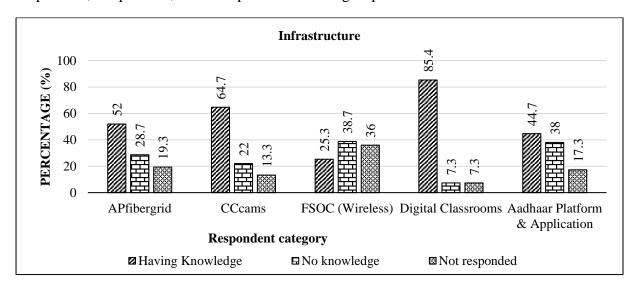


Fig.3 Knowledge level of sample respondents with regards to infrastructure in percentage

The statistical analysis for the respondents for infrastructure is given in Table VII. The number of samples and means for all the groups was found to be 3 and 50. The standard deviations

ranged between 10.583 and 67.550 for the different groups. The lowest standard deviation (10.583) was observed in FSOC (Wireless) group as the difference between respondents in the three different categories was small. The highest standard deviation (67.550) was found in the digital classroom group as the variation between the respondents having knowledge and no knowledge was high with most of the respondents having knowledge of the same.

Table VII

Descriptive statistics regarding infrastructure

Descriptive Statistics			
	N	Mean	Std. Deviation
AP fibergrid	3	50.00	25.239
CCcams	3	50.00	41.219
FSOC (Wireless)	3	50.00	10.583
Digital Classrooms	3	50.00	67.550
Aadhaar Platform & Application	3	50.00	21.378
Valid N (listwise)	3		

4. Incidents

RTGS constantly monitors all major incidents in the state and responds with institutional support in case of distress or an emergency situation.

Table VIII

Knowledge level of sample respondents with regards to incidents

Service providers	Having knowledge		No knov	vledge	Not Res	ponded	Total	
	Number	%	Number	%	Number	%	Number	%
ISRO	138	92	7	4.7	5	3.3	150	100
Sensors	88	58.7	40	26.7	22	14.6	150	100
Weather	129	86	10	6.7	11	7.3	150	100

Disaster	119	79.3	19	12.7	12	8	150	100
control								
SEOC	52	34.7	55	36.7	43	28.6	150	100
Incidents & events	93	62	37	24.7	20	13.3	150	100

The information level of the sample respondents regarding different incidents is given in Table VIII. It was noticed that of the 150 respondents 92 per cent had knowledge of ISRO, while a small percentage (4.7 per cent) did not know of ISRO. Sensors were known to about 58.7% of the respondents and not known to about 26.7 per cent. 86 per cent of the respondents had information on weather systems while a small percentage (6.7 per cent) had no knowledge of these systems. Disaster control was known to 79.3 per cent of the respondents and unknown to 12.7 per cent of the respondents. Awareness about SEOC was found in only 34.7 per cent of the respondents, while higher percentages (36.7 per cent) of the respondents were unaware of it. Various incidents and events were known to 62 per cent of the respondents. 24.7 per cent of the respondents had no knowledge of various incidents and events. The number of the respondents who did not take part in the survey were 3.3 per cent, 14.6 per cent, 7.3 per cent, 8 per cent, 28.6 per cent and 13.3 per cent in each group.

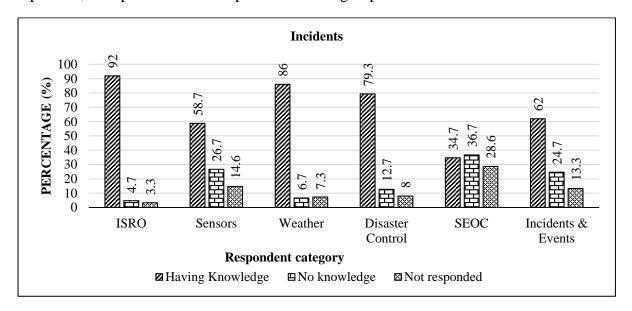


Fig.4 Knowledge level of sample respondents with regards to incidents in percentage

The statistical analysis for the respondents for different incidents is given in Table IX. The number of samples and means for all the groups was found to be 3 and 50. The standard deviation ranged between 6.245 and 76.217 for the different groups. SEOC had nearly the same range of respondents in the three categories and as such showed the lowest standard deviation (6.245). The difference between the number of respondents in the three categories was high in the case of ISRO leading to a very high standard deviation (76.217).

Table IX

Descriptive statistics regarding incidents

Descriptive Statistics							
	N	Mean	Std. Deviation				
ISRO	3	50.00	76.217				
Sensors	3	50.00	34.117				
Weather	3	50.00	68.418				
Disaster Control	3	50.00	59.858				
SEOC	3	50.00	6.245				
Incidents & Events	3	50.00	38.197				
Valid N (listwise)	3						

VI. FINDINGS AND SUGGESTIONS

Though the Real-Time Governance Society (RTGS) functions effectively, there is a need to improve its performance furthermore in certain aspects.

Spandana service played a pivot role in good governance by resolving all the grievances of the public within the stipulated time frame. However, delay in service delivery, irresponsiveness, low awareness of the public are some of the pitfalls needing to be rectified. Increasing the number of call centres, continuous improvement in the website, providing awareness about Spandana among the public through downloading the Spandana app are some of the ways to strengthen its performance. In the case of IoT and Surveillance, most of the respondents have low knowledge (25.3 per cent) regarding Geotagging. In fact, it plays a predominant role in maintaining the integrated updated land records and preventing litigation and corruption. Even though they are experiencing the services of Geo-tagging but they aren't able to know the name of the service. Therefore, the knowledge level of the respondents needed to be improved a lot through awareness campaigns.

Infrastructure is necessary to implement the programmes and policies of the government. The government strived to improve the infrastructure facilities through its investment and collaboration with other agencies on AP fibergrid, CC, CC cams, FSOC (wireless) and so on. Free Space Optical Communication technology is used to provide high-speed wireless connectivity. The respondents have meagre knowledge (25.3 per cent) about the FSOC (wireless). The knowledge level of respondents can be improved by organizing seminars, workshops and short-term training programmes on communication and wireless technology. Incidents are uncertain and their magnitude and loss cannot be estimated. A State Emergency Operation Centre (SEOC) is established to encounter weather-related natural hazards like floods, cyclones, earthquakes etc., However, most of the respondents have less knowledge (34.7 per cent) about it. Print and electronic media need to show much attention on using the technology extensively to improve the knowledge level of respondents regarding SEOC.

VII. CONCLUSION

Real-Time Governance Society (RTGS) has played an important role through its Real-Time delivery of services like weather forecasting, getting feedback from the beneficiary after providing the service, dissemination of the information to administration regarding cyclones right from the district level to the village level. Finally, we can conclude that there is a need to implement the Real-Time Governance Society in every state of our country to assist economic growth and monitor the delivery of services to every section of the society.

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