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1.	**Citizen participation**	A smart city constantly shapes and changes course of its strategies incorporating views of its citizen to bring maximum benefit for all (Guidelines 3.1.6)	The city begins identifies priorities and projects to pursue without consulting citizens.	City undertakes citizen participation with some select stakeholders. The findings are compiled and incorporated in some projects or programs. Very few major decisions are shared with citizens until final projects are unveiled	City conducts citizen engagement at city level and local area level with most stakeholders and in most areas. The finding are compiled and incorporated in project and programs.	City constantly conducts citizen engagement with people at each Ward level to incorporate their views, and these shapes priorities and development project in the city. Multiple means of communication and getting feedback such, both face to face and online are utilized. The effectiveness of city governance and service delivery is constantly enhanced on the basis of feedback from citizens.	Scenario 3	1. City has been undertaking wide ranging consultation since 2007 with various stakeholders to identify and prioritise the issues. 2. Launched MYRMC Mobile App to interact with citizens 3. Number of citizens engaged online through Facebook, talk shows, e-newsletter –>25,000 4. Dedicated Call centre, Email and SMS facility to address and update citizen grievances 5. Conducted close to 50 meetings while preparing Master Plan 6. Engaged with multiple NGOs –Manthan, Seva, ITDP, Maitri, Jagori, Mahila Housing Seva Trust, National Hawker Federation, Ekjut, Ace, Safetypin to engage with citizens	City wants to engage 100% of its citizens for participatory Governance – through online mode and face-to-face interactions KPI targeted: • 80% Mobile users • 2 meetings per ward per month	1. Develop integrated mobile application ***"ApniRanchi"*** that would facilitate: a. Provision of all the services of RMC on single platform b. Provide social networking platform to encourage G2C, C2C and G2G communication 2. Institutionalize Ward Sabhas and Area Sabhas to provide citizen engagement platform for cross section of society
2.	**Identity and culture**	A smart city has a unique identity, which distinguishes it from all other cities based on some key aspect: its location or climate; its leading industry, its cultural heritage, its local culture or cuisine, or other factors. This identity allows on	There are few architectural, monuments, symbols and festivals that emphasise the unique character of the city. Built, natural and cultural heritage is not preserved and utilized or enhanced through physical, management and	Historic and cultural resources are preserved and utilized to some extent but limited resources exist to manage and maintain the immediate surroundings of the heritage monuments. New buildings and areas are create without much	Historic and cultural resources are preserved and utilized and their surroundings are well maintained. Public spaces, public buildings and amenities reflect the cultural identity of the city-	Built, natural and intangible heritage are preserved and utilized as anchors of the city. Historical and cultural resources are enhanced through various mediums of expression. Public spaces, open spaces, amenities and public buildings reflect local identity and are widely used by the	Scenario 2	▶ Ranchi is beautifully surrounded by hills and waterfalls and is called as city of waterfalls and lakes. ▶ Installed India's tallest flag ht – 493 Ft ▶ ~15 fairs are yearly organized focussing on themes such as Pustak mela, Saras mela and International Trade fair to name a few ▶ Renovation & redevelopment of	The city wants to preserve, protect, utilize & enhance its built, natural, historical and cultural resources. Identity & culture of the city to get reflected from its public buildings	▶ 12 Km Subarnarekha Riverfront development – ~INR 125 Crore ▶ 10.4 km Harmu Riverfront development – ~ INR 86 Crores ▶ Beautification of Kanke Dam comprising of Urban haat – INR 5.60 Crores. ▶ Biggest lake of Ranchi – Bada Talab, is being redeveloped on PPP mode at a cost of ~INR 55 crores ▶ Birsa jail is being redeveloped as Birsa Smriti Park

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		easy answer to the question 'why in this city and not somewhere else? A smart city celebrates and promotes its unique identity and culture (Guidelines 3.1.7)	policy structures.	thought to how they reflect the identity and culture of the city.		public through festivals, events and activities.		Audrey house into a museum to showcase tribal culture ▶ Other structures preserved: Imam Kothi, Pahadi mandir, Tagore Hill, Rock garden, Nakshatra Van, Jagannathpur Temple and Sidhu Kanhu park ▶ Special arrangements made by Government to preserve natural surroundings to celebrate unique 'Sarhul' festival to worship Mother Nature.		▶ Intra State and Inter State tourism Circuits identified in and around the city, to be developed in Master Plan period ▶ Integrated Mobile App - "ApniRanchi" to highlight areas of heritage and culture of the city
3.	**Economy and Employment**	A smart city has a robust and resilient economic base and growth strategy that creates large-scale employment and increases opportunities for the majority of its citizens.(Guidelines 2.6&3.1.7 &6.2)	There are some job opportunities in the city but they do not reach all sections of the population. There are a high number of jobs in the informal sector without sufficient facilities.	There is a range of job opportunities in the city for many sections of the population. The city attempts to integrate informal economic activities with formal parts of the city and economy.	There are adequate job opportunities for all sections of the society. But skill availability among residents can sometimes be a challenge.	There are adequate opportunities for jobs for all sections of income groups and skill levels. Job - oriented skill training supported by the city and by industry. Economic activities are suited to and build on locational and other advantages of the city.	Scenario 1	Ranchi city is the administrative capital of Jharkhand which makes it an important place for service industry. Economy of the town is mainly due to its administrative nature.	▶ City intends to leverage on its inherent strength in terms of its industrial nature and pre-college level education based ecosystem. ▶ City intends to emerge as Knowledge hub for Eastern India and create 15,000 seats in knowledge based institutions in next 5-10 years. ▶ Provide approx. 2 lakh job opportunities in the city in next 5 -10 years	▶ Ranked 1st in Labour reforms and inspection related compliances in India ▶ Ranked 3rd in "Ease of Doing Business" in India. ▶ Single window clearance implemented to facilitate economic growth ▶ Construction of Cargo terminal at airport is ongoing ▶ Mega Food Park spread in 58 acres has been inaugurated. MOUs have been signed with 7 industries ▶ Development of IT park in 200 acres in core capital area ▶ Development of 341 acres Knowledge Smart City (KSC) as ABD in SCP, to give a boost to knowledge based economy.
4.	**Education**	A smart city offers schooling and educational opportunities for	The city provides very limited educational facilities for its	City provides adequate primary education facilities within	City provides adequate primary and secondary education	City provides adequate and high-quality education facilities within easily	Scenario 3	▶ Adequate school infrastructure is available in the city. Prominent schools in the city are	Leveraging on its existing ecosystem of education industry, Ranchi intends to	▶LOIs are given by Department of Higher & Technical Education to 6 prominent institutions such as AMITY,

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		all children in the city(Guidelines 2.5.10)	residents. There are some schools but very limited compared to demand. Many schools are in poor condition.	easily reachable distance of 15 minutes walking for most residential areas of the city. The city provides some secondary education facilities	facilities within easily reachable distance for most residential areas of the city. Education facilities are regularly assessed through- databases of schools including number of students, attendance, teacher-student ratio, facilities available and other factors.	reachable distance of 10 minutes walking for all the residential areas of the city and provides multiple options of connecting with specialised teaching and multimedia enabled education. Education facilities are regularly assessed through database of schools including number of students, attendance, teacher-student ratio, facilities available and other factors.		Loreto Convent (headquartered in Ranchi), DPS, DAV Group, St Xaviers, Taurian World school, JK Sapphire and Sharda Global School providing international level education ▶ 11 institutions offering AICTE accredited programs in the field of engineering/ technology, management, pharmacy, hotel management, architecture and have cumulative intake capacity of 3900 students per year ▶ Presence of renowned educational institutions such as BITS, IIM, XISS, ICFAI, National university of Study and Research in Law and Agriculture university like Birsa Agriculture University, RIMS, IICM in Ranchi	develop its higher education facilities and become the education node for the Eastern India	Pragyan foundation (Maytas), AISECT, and Karunya for setting up their universities in the city. ▶ Software being developed for maintaining student database "Student Lifecycle Management (SLM)" ▶ Construction of IIIT is in progress ▶ Development of 341 acres as Smart Knowledge City, where 23% of land is earmarked for knowledge based institutions
5.	**Health**	A smart city provides access to healthcare for all citizens (Guidelines 2.5..10)	Healthcare is difficult for citizens to access -- demand for health care often exceeds hospitals ability to meet citizen needs	The city provides some access to health care for its residents but healthcare facilities are overburdened and far from many residents. Access to preventive health is only easily Available for some residents.	City provides adequate health facilities within easily reachable distance for all the residential areas and job centres of the city. It has an emergency response system that connects with ambulance services.	City provides adequate health facilities at easily accessible distance and Individual health monitoring systems for elderly and vulnerable citizens which are directly Connected to hospitals to prevent emergency health risks and to acquire specialized health advice with	Scenario 2	▶ Presently, 4.2 beds per 1000 population is available which is close to the desired standards of 5 beds per 1000 population for urban areas. However for Super-speciality treatments citizens need to go to Kolkata or Delhi	▶ City provides easily accessible adequate health facilities to all its residents ▶ It has an emergency response system that connects with ambulance services	▶ 500 bed Sadar hospital has been constructed in Ranchi at cost of approx. INR 200 crores. Same shall be operational by 15-April 2016 ▶ 25 acres have been reserved in Knowledge Smart City (KSC) for developing Medical college and hospital ▶ '108' ambulance services to be rolled out in the city in next three months (by July 2016) ▶ '104' telemedicine helpline number launched recently

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						maximum convenience. The city is able to foresee likely potential diseases and develop response systems and preventive care.				▶ Construction of super speciality Apollo Hospital is in 2.83 acres on PPP basis, where land is provided by RMC ▶ Policy drafted for establishment of super-speciality hospitals, medical and nursing colleges and paramedical institutes
6.	**Mixed Land Use**	A Smart City has different kinds of land uses in the same places; such as offices, housing, and shops, clustered together	The city has mostly separated uses and areas are focused either on residential, commercial, or industrial, with little co-existence of uses. The average resident cannot walk to the closet market or shops near his or her home.For almost everyone, going to work or going shopping for basic needs requires a journey by automobile or bus of more than 15 minutes. Land use regulations prevent putting commercial or office locations in residential neighbourhoods and vice versa.	In some part of the city, there is a mixture of land uses that would allow someone to live, work and shop in close proximity. However, in most areas, there are only small retail stores with basic supplies near housing. Most residents must drive or use public transportation to access a shop for food and basic daily needs. Land use rules support segregating housing, retail, and office uses, but exceptions are made when requested.	Most part of the city has housing, retail, and office buildings in close proximity. Some neighbourhood has light industrial uses within them. (e.g., auto repair, craft production). Land use rules allow for mixed uses.	Every part of the city has a mix of uses. Everyone lives within a 15 minute trip of office buildings, markets and shops, and even some industrial use. Land use rules require or encourage developers to incorporate a mixture of uses in their projects.	Scenario 2	1. City is developed on Master Plan of 1987 and has fragmented into dedicated zones that discourage mixed land use development. Most of the trips are made towards central part of the city making it congested and leading to the traffic issues 2. For almost everyone, going to work or shopping for basic needs requires a journey by automobile or bus of more than 15 minutes	▶ Mix-Use principle and TOD concept to be used for city development ▶ 100% of residences having daily needs of retail, parks, primary schools and recreational areas accessible within 400 m and 15min. walking distance. ▶ All activities will be accessible within 10 minute walk distance	▶ Approved Master Plan 2037 promotes Mix land use development, walkability, affordable housing and development of open spaces ▶ Zonal development plans to be developed on TOD concept ▶ Draft Building Bye laws proposed encourages Mix land use and TOD concept for city development ▶ Knowledge Smart city is being developed on Mix-land use and TOD concepts. This shall act as a light house for similar kind of developments in the city
7.	**Compact**	A Smart City	The city is	The city has one	The city is highly	The city is highly	Scenario 2	▶ Nearly 91% of the trips	▶ Undeveloped /	▶ New Building Bye laws 2016

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		encourages development to be compact and dense, where buildings are located close to one another and are ideally within a 10-minute walk of public transportation, forming concentrated neighbourhoods	expanding rapidly as its periphery into underdeveloped land, rural or natural areas, or along industrial corridors –both formally and informally. Formal new development is occurring in a way that is "sprawling," meaning that the building spread across a wide area and are far from one another. Residents or tenants find it easier or safer to travel by automobile because it takes a long time to walk between destinations and there are busy roads separating buildings. Large pockets of land in the inner-city are vacant. New developments at the periphery tend to be large-scale residential developments, often enclosed	or two high density areas – such as the city centre, or historic areas, where buildings are concentrated together and where people can walk easily from building to building and feel as though they are in centre of activity. Most of the city consists of areas where buildings are spread out and difficult to walk between, sometimes with low-density per hectare. Regulations tend to favour buildings that are separated from one another, with lots of parking at the base and set-back from the streets. The city likely has some pockets of under-utilized land in the centre. New formal developments at the periphery tend to be large-scale residential	compact and dense, making the most of land within the city. Buildings are clustered together, forming walkable and inviting activity centres and neighbourhoods. Regulations encourage or incentivize re-development of under-utilized land parcels in the city centre. Buildings are oriented to the street– and parking is kept to a minimum, located below ground or at the back of buildings. Public transport and walking connects residences to most jobs and amenities. Residential density is at an optimal with affordable housing available in most areas.	compact and dense, making the most of land within the city. Buildings are clustered together, forming walkable and inviting activity centres and neighbourhoods. Regulations encourage or incentivize re-development of under-utilized land parcels in the city centre. Buildings are oriented to the street– and parking is kept to a minimum, located below ground or at the back of buildings. Public transport and walking connects residences to most jobs and amenities. Residential density is at an optimal with affordable housing available in most areas.		made in the city are within 5 kms and 8.5% of the trips are in the range of 5 to 10 kms, indicating a compact city. ▶ Average trip length in the city is 6.23 km (with walk) and 7.91 km (without walk) ▶ Ranchi has grown at a rate of 27% over last decade and has high density – 210 pph, ▶ CNT act limits the availability of contiguous land parcels. Thus the city has some pockets of under-utilized land in the centre ▶ New formal developments at the periphery tend to be large-scale residential developments, often enclosed with a gate and oriented to the automobile.	under-developed areas to be developed on Mixed land use and TOD concept ▶ Office Buildings, residential and commercial centres to be connected through public transport and walking.	encourages Mix land use and TOD concept for city development ▶ Zonal development plans to be developed on TOD concept ▶ Stations planned at 400m interval for the proposed monorail corridor, promoting public transport accessibility within 10 min walking range ▶ Upcoming 341 acres Knowledge Smart city is developed on TOD and mix land use concept. This shall be a model for future developments in the city

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			with a gate and oriented to the automobile.	developments, often enclosed with a gate and oriented to the automobile.						
8.	**Public Open Spaces**	A Smart City has sufficient and usable public open spaces, many of which are green, that promote exercise and outdoor recreation for all age groups. Public open spaces of a range of sizes are dispersed throughout the City so all citizens can have access	The city has a very few usable public open spaces and very few usable green spaces. Available recreational spaces are located far away and are dispersed at long distances around the city. The few available public open spaces offer a limited variety of experiences for all sections of population and age groups such as places for sport, places for rest, and places for play.	A variety of public open spaces are available in some neighbourhoods, But are not available in all the areas of the city or are located far away from residential areas Many of the open spaces have access restrictions, or are not well maintained. A variety of types of public open spaces may be lacking, such as natural areas, green areas, parks, plazas or recreation areas.	Most areas of the city have some sort of public open space. There is some variety in the types of public spaces in the city. However, public spaces are sometimes not within easy reach or access of more vulnerable populations and are more restricted in proper neighbourhood	Public open spaces are well dispersed throughout the city. Every residential area and work space has access to open space within 10 minutes walking distance. Open spaces are of various types – natural, green, plazas, park or recreation areas – which serve various sections of people. Public spaces tend to truly reflect the natural and cultural identity of the city.	Scenario 2	▶ 289.27 ha (~2.45 % of the total developed area) of land in Ranchi is reserved for recreational facilities. Total area of parks is 31.20 Ha. ▶ 43% of the parks are not maintained ▶ Ranchi city has many organized areas dedicated for the purposes to provide recreational facilities to its inhabitants. But are not available in all areas of the cities. Most of these parks lacks maintenance.	▶ Increase open spaces in the city and make them accessible within 10 min walking distance for every residential area and work place ▶ Easy access to open space within 10min walking distance from every residential and work space	▶ Ranchi Master plan 2037 allocates 6.63% area (1039.0 Ha) for Recreational facilities. ▶ Beautification of Kanke Dam comprising of Urban haat – INR 5.60 Crores. ▶ 12 km Subarnarekha Riverfront development – ~NR 125 Crore ▶ 10.4 km Harmu Riverfront development – ~ INR 86 Crores. O&M proposed through PPP (Proposed completion by 2018) ▶ Ranchi Lake (one of the biggest lake in Ranchi) is also being redeveloped on PPP mode at a cost of INR 55 crores (Planned to be operational by 2017) ▶ Theme based development of Birsa Jail into Birsa Smriti ▶ 15%-20% of new developments to be reserved for open spaces. ▶ Knowledge Smart city proposes development of 50 acres of Riverfront development of Nati river and an eco park in 7.2 acres
9.	**Housing & inclusiveness**	A Smart City has sufficient housing for all income groups and promotes integration among social groups	Housing is very limited and highly segregated across income levels. Population growth far exceeds the creation of new housing. The poor	Housing is available at most income levels but is highly segregated across income levels. Population growth slightly exceeds the creation of new	Housing is available at all levels, but is segregated across income levels. The growth of supply of housing almost meets the rate of population growth.	A wide range of housing is available at all cost levels. The supply of housing is growing at pace with populations. Affordable, moderate, and luxury housing are	Scenario 2	▶ Ranchi has nearly equivalent distribution of the houses under different income groups: EWS – 32.51%; LIG – 18.36%; MIG – 27.17% and HIG -21.96%	▶ Increased focus on affordable housing and LIG and MIG categories ▶ Overall improvement in residential	▶Master Plan 2037 propose increased participation from Private sector for construction and post occupancy management of houses ▶Final Building bye laws 2016 suggest 15% of EWS/ LIG

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			live in informal settlements with limited to no access to basic services, and are concentrated in a few areas. The wealthy live in separate enclaves. Those in the middle have few, if any options.	housing. The wealthy and the middle class have housing that meets their needs at costs appropriate to their income. The poor lives in informal settlements.	Increasingly, lower and middle income people can find housing in areas that are conveniently located.	found clustered together in many areas of city		▶ There are 95 slum pockets in the city, housing nearly 7.72% of population of the city ▶ Under BSUP scheme INR 108.64 Crores have been received for revival of 60 slum pockets (i.e. 8928 house). Over the last three years 2588 houses have been constructed	environment ▶ "City Without Slums" proposed in Master Plan 2037	housing in all residential developments ▶Affordable housing Policy 2016 is framed and will be implemented by Q3 2016 ▶Under RAY scheme 1565 DUs are sanctioned in 5 slums. ▶4700 DUs have been sanctioned under PMAY ▶Knowledge Smart city proposes 10 acres for affordable housing (nearly 1600 EWS units and 900 LIG units)
10	Transport	A Smart City does not require automobile to get around; distances are short, buildings are accessible from the sidewalk, and transit options are plentiful and attractive to people of all income levels	Personal automobile centric city with very few modal options. Long trip lengths for daily commute to work and education. Accessing various areas by walking or cycling is different. Women and vulnerable sections find it very difficult to move independently in the city. There is limited public transport. Vehicles cause high air and noise pollution levels in the city. Vehicles dominate public spaces and affect their effective functioning.	The street network system is elaborate but public transport choices are restricted. Public transport can be expensive or unaffordable for the poor. Pedestrian infrastructure is only available in select areas. The majority of investments focus on reducing traffic congestion through the creation of more roads.	Network of streets are fairly complete. Public transport covers most areas of the city. However last mile connectivity remains incomplete and affects transport options. Footpaths are accessible in most areas, whereas concerns of safe crossing and security throughout the day remain. Parking zones are demarcated but absence of pricing increases over utilization of parking lots. Also available underground parking systems are not fully utilized due to lack of proper enforcement.	Street network is complete and follows a clear structure. Public transportation network covers the entire city and intensity of connection relates with the demand. Plenty of options of public transport are available and affordable for all sections of the society. There is multimodal integration at all mass transit stations and organized-priced on street and off street parking. Walking and cycling prevalent.	Scenario 2	▶ Only 1% of footpaths a=in the city are in usable condition ▶ 65 buses for two routes operate in the city. ▶ 2335 autos operate in the city ▶ 136 e-Rickshaw drivers operate in the city on 10 routes ▶ 155 km of roads have been strengthened and widened in last three years	▶ Public transport accessibility: 75% of residents within a 5 min walk of formal public transport ▶ Improving modal share of public transport from existing 28% to 50% ▶ 60% of the population to be within 500m of transit line ▶ Improve bus service frequency by increasing bus supply to 0.5/1000 population ▶ Integration of PT ticketing system ▶ Strengthening of IPT mode through an Aggregator	▶ Street section improvement - Augmentation of road network across the city is proposed. DPR is submitted for 31.5 km roads for development in Phase-I ▶ 2 monorail corridors are proposed with stations at 400 m interval ▶ Provision for BRT corridor is suggested in Inner Ring road ▶ Smart Parking policy implemented on pilot basis in high density traffic zone ▶ Proposed 207 bus stops to be integrated with ICT technology and 'ApniRanchi' Mobile app ▶ 85 km ORR is proposed, of which 36 km is constructed ▶ 375 additional mini-buses planned to be operated in the city ▶ Centralised integrated Command & control centre ▶ Harmu River front development traversing through dense pockets of the

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										city is proposed to be developed as Greenways
11	Walkable	A Smart City's roads are designed equally for pedestrians, cyclists and vehicles; and road safety and sidewalks are paramount to street design. Traffic signals re sufficient and traffic rules are enforced. Shops, restaurants, building entrances and trees line the sidewalk to encourage walking and there is ample lighting so the pedestrian feels safe day and night.	The city is designed mainly for the automobile. Daily life without a car requires long bus rides. Walking is difficult and often dangerous; there are few pavements, existing pavements need repair and lack trees to provide shade for pedestrians, and marked pedestrian crossing are rare. New buildings have their main entrance set-back from the street, sometimes with large driveways or parking lots separating them from the street, and sometimes are enclosed by gates. Traffic signals are often disobeyed.	Older areas of city see a mix of pedestrians, cycling, and vehicle but newer areas are focused mainly on the automobile. In the new areas, there are few pavements and main entrances to new buildings are not accessible from the front of street. Large driveways or parking lots often separating them from the street, and sometimes are enclosed by gates. In these areas, traffic signals are disobeyed	The city has a good network of pavements and bike lanes. Buildings in most areas of the city are easily accessible from the pavement. However, traffic signals are sometimes dis obeyed and it can feel difficult to cross the street.	The city is highly walkable. Pavements exist on every street and are maintained. Trees line many sidewalks to provide shade for pedestrians. Buildings in most areas of the city are easily accessible from the sidewalk. Traffic signals control the flow of automobiles and are enforced. A network of bike lanes exists to promote cycling as a means of transport. Traffic rules are followed and enforced with great seriousness.	Scenario 2	▶ Share of walk trip – 23% ▶ Average walk trip length- 0.44 km ▶ Roads with usable footpaths – 3% ▶ Streetlight availability- ~74% of road network ▶ Traffic awareness week is organized every year to create traffic awareness in the city ▶ 155 km of roads have been augmented & strengthened	▶ Promote Walk-to-work concept ▶ Street section improvement to provision space for NMT trips ▶ 100% of roads to be augmented/ redesigned to provision for NMT trips	▶ Street section improvisation to provide space for pedestrians. DPR submitted for 31.5 km roads in first phase ▶ TOD concept to be followed for Zonal Development plans and Final Building Bye laws 2016 ▶ Stations planned at 400m interval for the proposed Monorail corridor, promoting public transport accessibility within 10 min walking range ▶ Upcoming 341 acres Knowledge Smart city is developed on TOD and mix land use concept. This shall be a model for future developments in the city ▶ 10.4 km Harmu River front development traversing through dense pockets of the city, to be developed as Greenways
12	IT connectivity	A Smart City has a robust internet network allowing high-speed connections to all offices and dwellings as desired	City has no major plans to bring increased high speed internet connectivity to the public.	The city has made plans to provide high speed internet connectivity through the existing framework.	The city makes has high speed internet connectivity available in most parts of the city.	The city offers free Wi-Fi services to provide opportunities for all the citizens to connect with high speed internet across the city.	Scenario 2	▶ Telecommunication density of the Ranchi circle is 3.5 per 100 persons against the national average of 10 per 100 persons, which is quite low and need to be improved ▶ Land and building assets of RMC are made available under 'New Mobile Tower policy' to telecom companies for setting up mobile towers	▶ Improve mobile network connectivity by setting up support infrastructure ▶ Provision for secured free WIFI coverage at key city locations like bus shelters, tourist locations, public offices etc	▶ As per New Wi-Fi policy, street light poles are allocated to telecom companies for setting up wi-fi units. This shall provide first 20 mins of free wi-fi to citizens. All Govt offices shall be provided with unlimited access to free wi-fi ▶ Optic Fibre Network (OFN) of ~15Km is planned under Pan city Solution - RITTS ▶ Ranchi to leverage GOI's Digital India project to

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								▶ 250 mobile towers have been established. 40 High mast poles have been given for use as mobile towers under PPP mode		provide IT connectivity in major transit corridors
13	Intelligent Government Services	A Smart City enables easy interaction (including through online and telephone services) with its citizens, eliminating delays and frustrations in interactions with government	Essential government services are not linked with online platforms. Paper intensive interactions with the local Government continues. Receiving services and response to citizen complaints take long time. There is limited availability of data to monitor service delivery.	Some of the public services are provided online and infrastructure for total digitalization is not in place. Service delays occur regularly in some sectors. Responses to citizen inquiries or complaints are often delayed. No integration between services and billing.	Most of the services are provided online and offline. Data transparency helps monitoring system and process to better coordinate between various Government agencies are being developed.	All major services are provided through online and offline platforms. Citizens and officials can access information on accounting and monitor status of projects and programs through data available on online system. Robust data infrastructure system shares information and enhances internal governmental coordination.	Scenario 3	▶ Provision of online citizen services such as tax assessments & pending dues w.r.t. Property, Water, and for trade licenses. ▶ Biometric attendance system-'eKaramchari' is used in RMC since 2012-13. This won accolade for best e-Governance practice under JnNURM in 2012-13 ▶ Online complaint registration through Jharkhandsmadhan.nic.in' website ▶ MYRMC App, that enables citizens to geotag their complaints and track its resolution ▶ Toll free number for grievance redressal	Scenario 4 The city wants that most of the services are available through online and offline platform. Citizens and officials can access information on accounting and can monitor the status of projects available on online system.	▶ Development of 'ApniRanchi', an integrated mobile app as an m-Governance initiative ▶ Auto DCR, an Integrated Online Building Plan Approval Management System, is being updated to include revisions suggested in Draft Building Bye Laws. ▶ Establishment of integrated Central Command Centre ▶ Development of e-Governance platform based on open source stack to support scalability & ease of execution
14	Energy Supply	A Smart City has reliable, 24/7 electricity supply with no delays in requested hook ups	There is only intermittent electricity supply with regular power shedding. Many residents have to plan their days around when power is available.	Electricity supply and loads are managed as per demand and priority for various functions with clear scheduling, with electricity being available in many areas for most hours of the day.	Electricity is available in most parts of the city for most hours of the day but some areas are not so well-served. Smart metering exists in some parts of the city but not all.	Electricity is available 24 X 7 in all parts of the city with smart metering linked to online platforms for monitoring and transparency.	Scenario 2	▶ Average availability in Ranchi is more than 704 hours monthly. ▶ Distribution of 4000 LED lights ▶ 10 LED bulbs are distributed to each HH at INR 10 each ▶ 50X2 MVA Grid is commissioned that ease Hatia 1&2 grids ▶ Underground cabling is done for 41.7 km of	▶ Electricity to be available in all parts of city with metering linked to some parts of the city through online platforms for monitoring and transparency. ▶ 24X7 energy supply	▶ Improvements for Ratu and Mandar Substation, Hatia Namkum – 200 MVA, Kanke – 100 MVA ▶ Revamping Ranchi electricity distribution system through R-APRDP scheme (INR 322 crores) ▶ Provision of new 33 KV lines, 11KV lines & new substation ▶ Smart Meters to be installed in the city

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								33kv line and 1000 km LT-AB cables are laid.		
15	Energy Source	A Smart City has at least 10% of its electricity generated by renewables	The city does not have any renewable sources of energy and there is no commitment to promote this for the foreseeable future.	The city is preparing plans for ensuring that it gets more energy from renewable sources and is in the process of making commitments in this regard.	Some energy consumed in the city is produced through renewable sources. There are long term targets for higher renewable energy capacities and the city is making plans to achieve these.	At least 10% of the energy used in the city is generated through renewable sources. The city is undertaking long-term strategic projects to tap renewable sources of energy in its region/beyond to increase the percentage of renewable energy sources.	Scenario 2	GoJ's Solar Power policy 2015 helps the state to promote Solar Power projects in the State.	Increase dependence on renewable source of energy, such that atleast 10% of the energy is supplied through renewable sources	▶Proposal for setting up 1200 MW Solar power plant on PPP mode ▶Draft Building Bye-laws provisions for solar roof top panels in private buildings ▶Solar Power policy mandates utilization of solar energy for 10% consumption need of individual HHs that have >1000 sft area ▶12 Government building identified by JREDA for installation of roof-top solar panels (Capacity of 2120 kWp) ▶Additional 12 Govt buildings have been identified for Grid connected Roof top Plants (2090 kWP at INR 3673 Lakhs)
16	Water Supply	A Smart City has a reliable, 24/7 supply of water that meets national and global health standards	The city has a poor water supply system with limited water availability. There are no clear targets to achieve higher quality and optimal quantity standards. Unaccounted water loss is above 40%	The city has intermittent water supply and availability. However it is setting targets and processes in place to try to improve its water supply. Unaccounted water loss is less than 30%	The city has 24 X 7 water supplies in most areas but quality of water does not meet international health standards. Unaccounted water loss is less than 20%	The city has 24 X 7 treated water supply which follows national and global standards and also available in sufficient quantity and affordable across all sections of the society. Unaccounted water loss is less than 15%	Scenario 2	▶ There are three reservoirs in the city with a cumulative capacity of 417 MLD. Nearly 245 MLD water is supplied. ▶ Coverage of water supply connection is 48% at present against 100 % as MOUD benchmark. ▶ Quality of water is 90% against 100% as MOUD bench marks. ▶ Non revenue Water – 70%	▶ The city wants 24 x 7 treated water supply which follows international standards in sufficient quantity across all sections of the society. ▶ The unaccounted water loss to be reduced to 15%.	▶Multiple improvement works ongoing in the city for NRW reduction ▶Provision for missing links for Water supply connections under State Plan, that will benefit ~14,220 HHs upon completion ▶Up gradation of Ranchi Water Supply Scheme by Oct 2016 under JnNURM & State Plan to ensure sufficient water availability for next 30 years: provision for 114 MLD WTP and connections at INR 373 Crore ▶DPR being prepared for water supply in new areas ▶Proposal to implement SCADA system on PPP mode
17	Water	A Smart City has	The city does not	The city has meters	The city has meters	The city has meters for	Scenario 1	▶ 67% Collection efficiency	City wants to reduce the	▶New Building Byelaws 2016

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	Management	advanced water management programs, including smart meters, rain water harvesting, and green infrastructure to manage storm water runoff	measure all its supply. It does not recycle water to meet its requirements and rain water harvesting is not prevalent. Flooding often occurs due to storm water run-off.	for all its water supply but lacks mechanisms to monitor. Water wastage is very high. Some, but not much, rainwater harvesting exists.	for all its water supply with some smart mechanisms to monitor. Rainwater harvesting systems are installed and storm water is collected and stored in water bodies. However, recycling of waste water and restage of storm water is limited	all its water supply. It includes smart mechanisms to monitor remotely. Rainwater harvesting systems are installed and utilized through the city and storm water is collected and stored in water bodies and treated for usage. Recycled waste water is supplied for secondary uses.		▶ Only 10% HHs have water meters ▶ Only 10% buildings have Rain water harvesting structure ▶ Nearly 155km of storm drains constructed	wastage of water during its supply and to increase its collection efficiency. City also wants to utilize the storm water by rain water harvesting.	strictly mandate apartments to have rain water harvesting facility. 50% penalty is otherwise imposed on holding tax. ▶ 10% penalty on flat rate for individual HHs in case of non-metered water ▶ Formation of District Meter Area by 2017-18 – INR 210 Crores ▶ Modernization & desilting of WTP at Kanke dam @ INR 5.64 Cr is proposed ▶ Proposal for provisioning of bulk meters @ INR 33 Cr to be initiated ▶ Construction of integrated 202 km storm water drains in RMC Zone 1 under JnNURM ▶ Proposal to implement SCADA system on PPP mode ▶ Dual pipe system proposed in Knowledge Smart City ▶ 5MLD raw water provided to HEC for industrial use to be replaced with recycled/treated water
18	Waste Water Management	A Smart City has advanced water management programs, including smart meters, rain water harvesting, and green infrastructure to manage storm water runoff	The city is enabling to treat all its sewage. Many local sewer lines open on to water bodies and open ground and pollute the environment.	Most wastewater is collected and treated before disposal. However the treated water does not meet standards and is not recycled for secondary uses.	All the waste water is collected and treated before disposal. It is also treated to a high standard and same is recycled.	The city has zero waste water because all the waste water is collected, treated and recycled. It meets standards and reduces the need for fresh water.	Scenario 1	▶ The city has no centralised sewerage system except for the colonies/areas of HEC & MECON. People use septic tanks with and without soak pits.	▶ The city wants total area to have a centralised sewerage system with 100 % collection efficiency.	▶ Project has been undertaken at cost of INR 723.691 Crore to provide centralised sewerage and drainage system in 4 RMC Zones. Work has commenced in Zone 1 (207.97 Km) ▶ Proposal to set up 3 STPs of 45 MLD, 120 MLD, 65 MLD capacities, to ensure 100% wastewater treatment
19	Air Quality	A Smart City has air quality that always	City does not have plans, policies or	City has programs and projects to	City has programs and projects to	The city has clean air by international	Scenario 2	▶ Pollution is continuously monitored at Van	The city wants to maintain the good air	▶ Proposal to install 5 automated air quality recording station

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		meets international safety standards	programs to improve the air quality. Systems to monitor air quality are absent.	monitor air quality and spatializing the data to ascertain reasons for degrees of pollution in the air. A few strategies to decrease a air pollution implemented.	monitor air quality and spatializing the data to ascertain reasons for degrees of pollution in the air. Pollution levels are acceptable.	standards. Live air quality monitoring covers the entire city and data of air quality are mapped		Bhawan & Firayalal chowk ▶ Introduced E-Autos in the city core area which helped in reduction of pollution level in the city	quality in city. So, project will be started to monitor air quality specialization data to ascertain degree to pollution and to check the pollution level of the vehicles on the roads.	across the city. Live air quality to be monitored at CCC. Results will be mapped and displayed online. ▶2 Devices to check air quality are proposed at two locations under Pan city initiative - RITTS ▶Promotion of e-Autos to reduce pollution levels ▶Encouraging public transport to reduce traffic ▶NMT corridor, Greenways, Pedestrian movement
20	Energy Efficiency	A Smart City government uses state-of-the-art energy efficiency practices in buildings, street lights, and transit systems	City has no programs or controls or incentive mechanisms to promote or support energy efficiency in buildings.	The city promotes energy efficiency and some new buildings install energy efficiency systems that track and monitor energy use and savings.	Most new public buildings install energy efficiency systems and some older buildings are also retrofitted to be more energy efficient. Local government conducts counselling and outreach with developer, businesses and residents to adopt energy efficiency strategies.	All the existing old and new public buildings employ energy efficiency principles in development and operation and apply for energy rating by national and international forums. Many non-public buildings are also energy efficient because the government promotes energy efficiency through incentives and regulations.	Scenario 2	▶ Sodium vapour street lights are being replaced with LED lights by RMC to save energy ▶ ~40% street lights converted to LED (~8500 lights have been installed). Project ongoing to convert 100% street lights into LED ▶ 32 High mast lights cum mobile towers are converted to LED ▶ LT-AB Cable done for 1000km	▶ Deployment of energy efficiency mechanism in 100% of buildings	▶Project worth INR 322 crores commenced to modernize all the existing old and new transit systems under R-APDRP scheme ▶DELP program proposed by JBVNL aims to overcome first cost barrier in purchasing LED lights & its promotion in domestic sector, which accounts for ~50% of energy consumption ▶Solar Power policy mandates utilization of solar energy for 10% consumption need of individual HHs with >1000 sft area
21	Underground Electric Wiring	A Smart City has an underground electric wiring system to reduce blackouts due to storms and eliminate unsightliness	City does not have plans, for electric wiring.	More than 40% of the city has underground electric wiring system	More than 75% of the city has underground electric wiring system	More than 90% of the city has underground electric wiring system	Scenario 2	City has 41.7 km of 33kv UG Cables	100% city to have Underground electric wiring & reduce T&D losses and maintenance cost	▶Underground HT work is under implementation for 1000km. ▶Ranchi intends to have underground wiring system to most parts of the city. DPR has been prepared for the project and to fund the project through IPDS scheme
22	Sanitation	A Smart City has no open defecation,	Many parts of the city do not have	Sanitation facilities are available to	Sanitation facilities are available to 90%	Sanitation facilities are available to 100% of	Scenario 2	▶ RMC maintains the sanitation works in the	▶ City wants to be open defecation free	▶Five mobile toilets with total of 36 seats are being acquired

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		and a full supply of toilets based on the population	access to sanitation infrastructure and facilities.	70% of the city's population.	of the city's population.	the city's population.		Ranchi city, including 60 Public toilets and 12 urinals. ▶ The coverage of laterines (individual or community) under existing level is 70% against 100 % MOUD benchmarks. ▶ City has three mobile toilets with total of 22 seats ▶ Awareness creation campaign through wall painting, hoardings, Nukkad - Natak has been undertaken in the city with help of various NGOs ▶ 3600 toilets provide under Swachh Bharat Mission (SBM)	in coming years and provide toilets as per the population demand. ▶ Construction of public toilets and urinals at frequent intervals	▶100% sanitation & Zero defecation planned under SBM ▶Construction of 9 public toilets (37 seats) is being undertaken
23	Waste Management	A Smart City has a waste management system that removes household and commercial garbage, and disposes of it in an environmentally and economically sound manner	Waste collection systems do not pick up waste on a frequent basis and waste often enters into water bodies.	Waste generated is usually collected but not segregated. Recycling is attempted by difficult to implement.	Waste is segregated, collected, recycled and disposed in an environmentally sound manner.	The city reduces land fill caused by waste so that it is minimal. All the solid waste generated is segregated at source and sent for recycling. Organic waste is sent for composting to be used for gardening in the city. Energy creation through waste is considered	Scenario 2	▶ 60% Door to door collection for the waste is done by RMC through contract workers. ▶ Contractual staff for Solid waste collection increased from 933 in 2013 to 2005 in 2015 ▶ No proper treatment and disposal of the waste ▶ Formation of Special task forces during festive seasons	▶ City wants to cover 100 % household for collecting the solid waste. ▶ Solid waste collected to be treated such that organic waste is incinerated and converted to energy.	▶Concession agreement has been signed with M/s Essel Infra for 100% door-to-door waste collection and installation & O&M for waste to energy plant of 11MW ▶Reclaiming the existing landfill site by bio mining is also proposed.
24	Safety and Security	A Smart City has high levels of public safety, especially focused on women, children and the elderly; men and women of all ages	The city has low levels of public safety – most groups of residents feeling secure during most parts of the day in many	The city has medium levels of public safety – some more vulnerable groups feel insecure during some points of the	The city has high levels of public safety – all citizens including women; children and elderly feel secure in most parts of the city	The city has very high levels of public safety – all residents feel safe in all parts of the city during all hours of the day.	Scenario 3	Ranchi city has taken several measures to check the crime activities and successfully uphold the safety and security conditions. ▶ Launch of eRahat, Shakti and Mein bhi police Mobile	High levels of public safety and residents feel safe at some parts of the city during some hours in a day.	▶Increased patrolling of police ▶~630 CCTV surveillance cameras are proposed under Pan city initiative- RITTS at: ○ 375 buses ○ 207 bus stops

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		feel safe on the streets at all hours. (Guideline 6.2)	parts of the city.	day and in some parts of the city.	during most time in the day.			App for the women safety. ▶ 125 Pink Autos dedicated for women passengers ▶ 32 High mast lights provided across the city ▶ Night patrolling is being provided throughout city ▶ 4 dedicated Police stations established to deal cyber crimes ▶ Total Cognizable Crimes Under IPC per lacs population in city Year 2012 ---354, 2013 ---349		○ 5 Terminals / Transit Center ○ 40 Signals ▶ Plans to provide 40 High mast lights at major junctions ▶ 20 Shakti Commandos deployed for surveillance s ▶ 'ApniRanchi' mobile App to facilitate reporting crimes, especially during emergency situation ▶ Mix land use to ensure safe and vibrant streets