



GOVERNMENT OF KARNATAKA

**EVALUATION OF THE PERFORMANCE OF SC/ST
COLONY INFRASTRUCTURAL FACILITIES
SCHEME UNDER THE SCSA/TSA FOR THE PERIOD
OF 2014-2015, 2015-2016 AND 2016-2017**



ಕರ್ನಾಟಕ ಮೌಲ್ಯಮಾಪನ ಪ್ರಾಧಿಕಾರ
Karnataka Evaluation Authority

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PLANNING, PROGRAMME MONITORING AND STATISTICS DEPARTMENT
GOVERNMENT OF KARNATAKA
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AND 2016-2017**

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LEARNING, KALABURAGI**



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FOREWORD

The agenda of inclusive growth with equity, social justice and empowerment of the marginalised communities is enshrined in Indian constitution that is to be achieved with effective ways of ensuring equal rights, opportunities, access to services, benefits and resource flows for their development and mainstreaming. The Karnataka Scheduled Castes Sub Plan and Tribal Sub Plan (Planning, Allocation and Utilization of Financial resources) Act-2013 and rules 2017 were enacted for effective implementation of the programmes for the welfare and empowerment of Scheduled Caste and Scheduled Tribe community. The Evaluation of the Performance of SC/ST Colony Infrastructural Facilities Scheme under the SCSA/TSA (2014-15, 2015-2016 and 2016-2017) was initiated by Social Welfare Department through Karnataka Evaluation Authority (KEA) to assess the impact of the scheme on enhancement of quality of life of the Scheduled Caste and Scheduled Tribe community. The study was carried out by Hyderabad Karnataka Centre for Advanced Learning (HKCAL) the consultant organization under the guidance and monitoring of KEA.

The study derives its findings from the analysis of secondary as well as primary data collected from a multi-stage, stratified random sampling from eight sample districts, 1288 sample works and 5111 respondents covering the entire state. The major findings of the study indicate that the scheme has produced impact, about 64.5% of the beneficiaries agreed that the infrastructural works across the colonies have helped in enhancing their standard of living. The cement roads have increased convenience and mobility but are also used to dry the agricultural produce. 47.8 % of the beneficiaries expressed that the overall quality and maintenance of the community halls is satisfactory. Only 64.95 % of the beneficiaries were aware of the scheme. There was a mixed response regarding the impact of drainage works on reduction of dirty smell, mosquitoes, and overall pollution in the colonies. 56.42 % of the beneficiaries suggested that the works identified under the infrastructure scheme needs to be revisited/changed and there is a need to consult the beneficiaries to identify their needs before sanctioning and implementing works. The major recommendations are- Ensure annual social audit of infrastructure works under the SCSA/TSA schemes, sign-boards to be placed with details about the work, along with date of commission and completion, needs assessment should be undertaken by the nodal department and the local authorities before making choice of works, to provide end-to-end drainage facilities, ensure the continuous supply of quality drinking water by providing mineral water plants and hygienic miniature tanks, effective utilization of Samudaya

Bhavans/Community Halls through engaging in skill/vocation training. The Nodal agency to conduct periodical assessment of quality and maintenance of works and also identify the gaps in human development at micro level to design the strategy and for identification of the works.

I expect that the findings and recommendations of the study will be useful to the Government and Departments of Public Works, Rural Development and Panchayat Raj, Irrigation and Social Welfare for taking up the necessary modifications in scheme design and implementation to maximize the outcomes.

The study received support and guidance of the Additional Chief Secretary, Planning, Programme Monitoring and Statistics Department, Government of Karnataka. The report was approved in 49th Technical Committee meeting. The review of the draft report by KEA, members of the Technical Committee and an Independent Assessor, has provided useful insights and suggestions to enhance the quality of the report. I duly acknowledge the assistance rendered by all in successful completion of the study.



Chief Evaluation Officer
Karnataka Evaluation Authority

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The “**Evaluation of the Performance of SC/ST Colony Infrastructural Facilities Scheme under the SCSA/TSA for the Period of 2014-2015, 2015-2016 and 2016-2017**” was compiled with efficient analysis of primary and secondary data obtained from the valuable information contributed by beneficiaries of the scheme selected from 8 districts of Karnataka. Hyderabad Karnataka Centre for Advanced Learning (HKCAL) would like to acknowledge the following personalities for their valuable contributions in completing this evaluation study.

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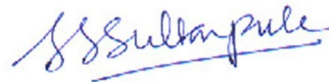
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President

Hyderabad Karnataka Centre for Advanced
Learning, (HKCAL), Kalburgi

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List of Abbreviations

1	BPL	Below Poverty Line
2	CADA	Command Area Development Authority
3	CPS	Central Plan Schemes
4	CSR	Corporate Social Responsibility
5	CSS	Centrally Sponsored Scheme
6	DC	District Commissioner
7	DMC	District Monitoring Committee
8	DMCR	District Monitoring Committee Reports
9	FGD	Focused Group Discussion
10	GoI	Government of India
11	GoK	Government of Karnataka
12	GP	Gram Panchayat
13	IDI	In-Depth Interview
14	IFA	Iron and Folic Acid
15	KEA	Karnataka Evaluation Authority
16	KIADB	Karnataka Industrial Areas Development Board
17	KREIS	Karnataka Residential Educational Institutions Society
18	KSSIDC	Karnataka State Small Industries Development Corporation Ltd
19	MoHFW	Ministry of Health and Family Welfare
20	M.Phil.	Master of Philosophy
21	NRDWP	National Rural Drinking Water Program
22	NSFDC	National Scheduled Caste & Scheduled Tribe Finance Development Corporation
23	NGOs	Non-Governmental Organizations
24	NSS	National Sample Survey
25	Ph. D	Doctor of Philosophy
26	PWD	Public Works Department
27	RDPR	Rural Development & Panchayat Raj
28	SC	Scheduled Caste
29	SCDCs	Scheduled Castes Development Corporations
30	SCSA	Scheduled Caste Sub Allocation

31	SCP	Special Component Plan
32	SES	Socio-Economic Status
33	ST	Scheduled Tribe
34	SWD	Social Welfare Department
35	TB	Tuberculosis
36	TRIFED	Tribal cooperative marketing development Federation
37	TOR	Terms of Reference
38	TSP	Tribal Sub Plan
39	UT	Union Territory
40	ZP	Zilla Panchayat

Executive Summary

The Scheduled Caste Sub Plan (SCSP) and the Tribal Sub Plan (TSP) were strategized in the 1970s to ensure that there is optimum allocation of plan resources for the development of the Scheduled Tribes and Scheduled Caste population. Since its inception, the Tribal Sub Plans and Special Component Plans have been an integral part of Annual Plans as well as Five Year Plans, making provisions therein non-divertible and non-lapsable, with the clear objective of bridging the gap in the socio-economic development of the Scheduled Castes and Scheduled Tribes. With SCSP and TSP in place, there are provisions to augment the SC's and ST's living conditions by guaranteeing funds from all related development sectors both at the level of State and Centre in proportion to the size of their respective population. The SCSP and TSP have rightly been deemed as one of the most efficient initiatives by the then Planning Commission in taking cognizance of the need for a distinction between 'incidental' benefits for SCs and STs from the existing government interventions and 'direct policy-driven' benefits.

According to the 2011 census, there are about 166,635,700 SCs and 84,326,240 STs in this country which roughly translates into 16.2 per cent and 8.2 per cent of the population. The SCSP and TSP envisage that the funds get earmarked for various schemes related to health, education, skill and employment generation, infrastructure, etc. to ensure a better quality of life of the SC/ST population.

To this end, the Government of Karnataka adopted the Karnataka Scheduled Castes Sub-Plan and Tribal Sub-Plan (Planning, Allocation and Utilization of Financial Resources) Act in 2013. Karnataka is only the second state after Andhra Pradesh to do this. The Act calls for earmarking a portion of state plan outlay for the Scheduled Castes Sub-Plan and Tribal Sub-Plan in proportion to the population of SCs/STs, which is 24.1 per cent now as per the 2011 census. According to the Act, the State Council for the Development of SCs/ST with the Chief Minister as chairman is in charge of planning and implementation of the schemes under the Act. The Social Welfare Minister heads the Nodal Agency at State level, and the Deputy Commissioner of the district heads the district-level committees to review and monitor the implementation of the Act.

The Sub-Plans of the departments are supposed to include only such schemes that secure the direct and quantifiable benefit to the SC/ST individuals, SC/ST households or SC/ST habitations that have the potential to bridge the 'gaps in development', especially their

individual educational and economic empowerment. Each department, after estimating the gaps in the development of the SCs/STs, is supposed to prioritize the development needs of the SCs/STs through a consultative process.

In order to appraise the efficacy of the SC/ST colony infrastructural facilities schemes under the purview of SCSA/TSA, an evaluation study was conducted from 2014 to 2015, 2015-16 and 2016-2017. The evaluation study seeks to understand the process of selection of colonies and schemes. The study has examined the extent to which the beneficiaries are aware or involved in the selection of activities for the development of colonies. Further, the study attempts to measure the impact of these schemes on the living environment of the residents in the aforementioned colonies. The study rates the developmental progress and completion status by making a comparative analysis of the performance of the scheme across all the divisions and sample districts. The study attempts to answer whether or not the infrastructures like community halls, cement roads and drainage system are being used in a desirable manner or not. While analysing the overall impact, the study provides insights on the intersectoral/interdepartmental coordination across concerned departments (PWD/RDPR/SWD) of the government associated with the implementation of the works under the said scheme. The evaluation study examines the non-coverage colonies in the district to assess the depth of the impact of these schemes.

The study was conducted in 4 divisions, 8 districts, 54 taluks of Karnataka to evaluate the works executed through the Public Works Department (PWD) and Social Welfare Departments (SWD). The study has employed both qualitative and quantitative methods of analysis synergistically, which has been supplemented by an extensive review of the literature. The study includes both primary data collected from the field, and it also draws from a rich repository of the secondary data from various reports and surveys. In-depth interviews and Focused Group Discussion (FGDs) comprising both the open and close-ended questions were used to derive insights.

There were 5,111 respondents in total, out of which 72.2 per cent of the beneficiaries were male, and 27.8 per cent were female beneficiaries. The average age of the sample beneficiaries is 40, and the average annual income is INR 15,602. The educational profile of the beneficiaries shows that 29.5 per cent have completed high school education, 26.5 per cent of them were no-schooling group, 13.6 per cent of them studied still pre-university, 13.4 per cent of them studied still middle school, 10.4 per cent studied graduation, and 6.6 per cent

studied their primary school. 64.95 per cent of the respondents were aware of the infrastructural facilities, while 64 per cent of the people were consulted, and 54.8 per cent of the people were involved in the process. Following are some of the major findings of the evaluation study:

Cement Roads

Cement Road plays a pivotal role in ameliorating the living environment as they augment access to other socio-economic infrastructures and services. It helps in facilitating the process of reducing inequalities and influencing the process of knowledge gain. During the survey, it was concluded that the Vijayapura district had gained maximum access and mobility owing to the infrastructural works of cement road. Sedum of the Vijayapura district with an index score of 83.8 was the best performing taluks amongst all others. Chamarajanagar is the worst performing district with a lower index score of 25.0, respectively. The study inquired into the respondents about the utilities of the cement roads like drying of agricultural crops. Kalaburgi registered the highest utility index, while Chamarajanagar got the lowest score of 3.8. Since Chamarajanagar has got a low index score, and naturally the residents are not finding other utilities of the road.

Tracking the benefits - reducing maternal and infant deaths due to improved access to medical care, it was noted that Belagavi and Vijayapur districts have highest scores for benefits of laying cement roads with the scores being 48.6 and 65.6, respectively. Thus, it may be concluded that laying cement road achieved the intended outcome of enhancing access, transportation, overall satisfaction and mobility across the colonies have received average satisfactory responses from the beneficiaries.

Drinking-Water Facility

Access to clean drinking water is one of the major determinants of health and well-being. The evaluation study sought to gather information regarding drinking water facilities created in SC/ST colonies in the state of Karnataka across eight districts. As far as water access is concerned, Tumkur and Kalburgi districts are leading with 0.83 index scores each. At the same time, Belagavi district has a leading score of 0.63, while Vijayapura district has the least index score in water quality. Belagavi district also has the highest index score of 0.61, as far as the hygiene of the water is concerned, while Chamarajanagar and Vijayapura trailed with each scoring 0.50. Kalburgi residents reported a continuous supply of water with a score of 0.78, while Chamarajnagar registered a lower score of 0.61. It was noted that any

infrastructure related to drinking water in Chamarajanagar was not up to the mark. Lack of access to drinking water, hygiene and sanitation can lead to fatal diseases and other health complications.

Drainage works

Sanitation is one of the primary requirements for better living conditions. There is a high correlation between sanitation and well-being. Improper drainage facilitates the growth of disease breeding organisms in the locality. The present study sought to evaluate the extent to which drainage infrastructures have been laid down in the SC/ST colonies. There were three broad areas of focus viz. whether the drainage projects colonies were completed on time; whether the quality and scientific execution of drainage works is efficient or not; and whether the maintenance of the same is being undertaken or not.

Belagavi has the best quality of drainage work and cleaner drainage with an index score of 0.66 and 0.65, while Vijayapura with an index score of 0.24 and 0.25 respectively was at the bottom. All the districts have agreed that the drainage infrastructure was completed on time. One of the key personnel of the nodal department during the IDIs opined that there is no coordination between the PWD, SWD and the local authorities to examine the need for the drainage work and ensure timely completion and maintenance of the same. Overall, 56.2 per cent of the total respondents agreed that diseases like TB, Malaria, Encephalitis, Diarrhoea, etc. have reduced after the drainage work in the colony. So, we can conclude that building of drainage facilities has ameliorated the living conditions in the SC/ST colonies, however, in some colonies the works are incomplete affecting the overall living conditions of the community in the colony.

Community Halls

Community Halls provide a safe space for socio-cultural integration and other activities which may be all-encompassing in nature like education, sports, and other events. Vijayapur district with an index score of 3.9 indicates maximum usage of the community hall, while Mysore with an index score of 2.6 reflects the lowest usage of the Community Hall. About 52.21 per cent of the beneficiaries expressed dissatisfaction over the quality and maintenance of the community halls. From the IDIs, it was found that the absence of periodic monitoring system and lack of coordination between concerned departments are some of the main reasons for low quality and maintenance of community halls. In one of the Taluks of the Tumkur district, it was noted that the construction of the hall is incomplete, and the activity

has been stopped, and there is no progress from the past four years. However, in colonies of Raibagh and Chikkodi in Belagavi district, these halls were used for various programs organized by the government which includes training programs for women who are part of self-help groups, and children of the colony use it for academic and recreational purposes.

In sum, it has been observed that about 64.2 per cent of the respondents have agreed that the implementation of these infrastructural works in SC/ST has augmented and enhanced their standard of living. Amongst the eight districts surveyed, Kalburgi and Vijayapur have expressed highest index scores of 81.9 and 71.6 respectively, which reflects high satisfaction and acceptance that their standard of living was enhanced due to the implementation of infrastructural works. Correlation analysis reveals that there has been a high positive significant correlation between the overall living standard index and all the utility indicators developed for the various developmental works undertaken in the colony. The building of cement roads has a 0.95 correlation coefficient with Overall Living standard Index, while general health with a coefficient of 0.58 lags in this regard. However, it was also reported that there were stark differences in the development indicators between the beneficiary group and the non-beneficiary group.

From the major findings for the study, a few broad generalizations can be made: first, the beneficiaries are aware about the scheme(s), but not informed and consulted in identifying the works in the colony; second, the impact on the beneficiaries due to infrastructure works varies across districts and divisions in the state. Such variations are attributed to lack of need-based allocation of works and/or lack of inter-sectoral/interdepartmental coordination to identify, sanction, implement and monitor works related to infrastructure facilities in SC/ST colony. Third, the role of the District Monitoring Committees (DMCs) in examining the status and quality of works is critical for the expected outcome of the scheme. Fifth, the method of execution of works in colonies is important to ensure better living conditions for the beneficiaries in the colony, and finally, the qualitative and quantitative impact of works on the individual community/life of the beneficiary needs to be assessed periodically to identify the need for new works and/or maintenance of the existing works.

Recommendations

Short-term Recommendations

1. The SC/ST colony infrastructural facilities scheme in its current form can be linked to other schemes like Rural Water Supply Scheme and Grants for Urban Water Supply Scheme for providing drinking water; Namma Grama Namma Raste Scheme (NGNRY) for laying roads; Trainings and courses-Mountaineering, Pilot license, fitness training and Skill Development Training under Skill Development Mission- community halls or Samudaya bhavans could be used for training purposes; and Development of SC/ST colonies scheme for overall development of the colonies.
2. To ensure intended outcomes and transparency in the implementation of infrastructure projects, the SWD should evolve guidelines for ensuring annual social audit of infrastructure works under the SCSA/TSP scheme. Under the social audit, the beneficiaries, along with representatives of the department personnel, could assess the progress of the work and its quality. The social audit could be linked to the existing directorate under the MGNREGA.
3. More than 50 per cent of the beneficiaries have expressed their dissatisfaction over the quality and maintenance of community bhavans. The Nodal agency in consultation or collaboration with implementing agency or local authorities shall outlay a dedicated fund and conduct periodical assessment of quality and maintenance of community bhavans.
4. Majority of the beneficiaries suggest that the works identified under the infrastructure scheme needs to be revisited/changed. There is a need to consult the beneficiaries to identify their needs before sanctioning and implementing works. A needs assessment should be undertaken by the nodal department and the local authorities to prioritize the needs of the beneficiaries to bridge gaps in development.
5. A detailed five-year action plan must be prepared to implement the schemes under the SCSP/TSP. These action plans must consider the need for infrastructure facilities across colonies which should be periodically procured from respective agencies/personnel involved in planning, implementing, and monitoring the schemes. These action plans must make provisions to utilise funds under SCSP, TSP and other funds in colonies with SC/ST population of less than 50%.

6. Periodically identify the gaps in development that contribute to human development at the taluka and district level, District Human Development Reports once in five years would aid in estimating development gaps among the beneficiaries.

Long-term Recommendations

1. The performance of the SC/ST colony infrastructural facilities scheme will be more effective if there is a robust strategy to enable interdepartmental convergence to identify, implement and evaluate the schemes and its impact on the beneficiaries. With multiple agencies/departments associated with a scheme, has resulted in a lack of accountability, leading to delays or incomplete or low-quality of works.
2. Funds for effective utilization of Samudaya Bhavans/Community Halls to engage in skill/vocation training can be sourced from various state and national programs/schemes (For instance, departments of higher education, youth empowerment, skill development, and labour), in addition to Sub-plan. Corporate Social Responsibility (CSR) funds can be considered for providing facilities, training, and awareness programs at the Samudaya Bhavans/Community Halls.
3. Department must take appropriate measures to ensure the continuous supply of quality drinking water by providing mini-mineral water plants and hygienic miniature tanks as part of the scheme to the SC/ST colonies. In the present study, the beneficiaries expressed average satisfaction over the water infrastructure and the indicator for continuous water.
4. The Nodal Departments shall set up district level Grievance Redressal Cell (GRC) in all the districts in the office of District S C Sub-Plan Officer and District Tribal Welfare officer.
5. There shall be an Ombudsman as Appellate Authority under grievance redressal system appointed by the Governor in consultation with State Government with necessary support staff to enquire into the complaints relating to SCSP/TSP implementation.

1. Introduction

1.1 Background

India is a welfare state, committed to the welfare and development of the people and of vulnerable sections. The constitution of India compels both central and state governments to bring all the socially and economically disadvantaged sections on par with the privileged society through the process of equitable development and empowerment. The social justice and empowerment of all social groups are enshrined in the Constitution must be achieved with effective ways of ensuring equal rights, opportunities, access to services, benefits, and resources of the government to enable them to develop their potential and capacities as agents of social change for their upward economic and social mobility.

Periodically the government has taken several steps for framing policies needed to design and implement various welfare programs for achieving the objective of creating a favourable environment to ensure speedy socio-economic development of SCs/ STs. For the well-being of these communities, special target-oriented programs are being implemented by earmarking funds, providing subsidies, offering reservations in employment and educational institutions, etc. According to the 2011 Census, the population of Scheduled Castes in India is 19.7 lakhs and it forms 16.6 percent of the total population. In Karnataka, the SC population is 104.75 lakhs, and it forms 17.15 percent of the total population, The ST population at all India level is 1042.8 lakhs and it is 8.6 percent of the total population. In Karnataka, the ST population is 42.5 lakhs and it is 7 percent of the total population. The SC/ST population forms about 24.15 percent of the total population in the State.

Many schemes have been introduced since independence to promote the economic, social, and political empowerment of these marginalized communities. Special Component Plan (SCP) and Tribal Sub-Plan (TSP) were initiated by the government as intervention strategies during the seventies to cater exclusively to Scheduled Castes (SC) and Scheduled Tribes (ST) respectively. Such plans are meant to ensure benefits to these special groups by guaranteeing funds from all related development sectors both at State and Centre in proportion to the size of their respective population. The Government of India also extended Special Central Assistance (SCA) to states and UTs as an additive to SCP and TSP. (Ministry of Social Justice and Empowerment provides 100% grant under Central Sector Scheme of SCA to SCP as an additive to SCP to States/UTs).

TSP approach envisages integrated development of tribal areas wherein all programs irrespective of the source of funding operate in unison to achieve the goal of bringing (tribal) area at par with rest of the State and improve quality of life of tribal. It is geared towards taking up family-oriented income-generating schemes, elimination of exploitation, human resource development through education and training, and infrastructure development. TSP programs are financed from (a) TSP funds from State /U.T Plans and Central Ministries/Departments, (b) Special Central Assistance (SCA) to TSP (c) Funds through Central Sector Schemes/ Centrally Sponsored Schemes and (d) Institutional Finance.

The nomenclature of SCP has since been changed to Scheduled Castes Sub-Plan (SCSP) on the lines of TSP. The strategy of SCSP consists of important interventions through the planning process for the social, educational, and economic development of Scheduled Castes and also for improvement in their working and living conditions.

Guidelines issued by Planning Commission for the formulation, implementation, and monitoring of SCP and TSP emphasize, inter-alia, on earmarking funds towards SCP and TSP in proportion to the population of SC and ST respectively, creating dedicated unit for proper implementation and separate budget-head/sub-heads for making funds non-divertible and approval for plans of Central Ministries/Departments/State Governments being conditional on adherence to implementation of SCP and TSP. Ministry of Social Justice and Empowerment and Ministry of Tribal Affairs periodically review and monitor SCP and TSP respectively.

1.1.1 Significance of the study

SCSP and TSP evolved intending to expedite the socio-economic development of the Scheduled Castes and Scheduled Tribes. The Sub Plan is not a scheme by itself, but it is an umbrella under which schemes implemented by State and Central Government are dovetailed by apportioning funds exclusively for Scheduled Castes and Scheduled Tribes for addressing their needs and problems. SCSP and TSP is thus, a plan within a plan, where each department formulates need-based programs to affect the direct flow of benefits to Scheduled Castes and Scheduled Tribes through family and individual-oriented programs as well as benefits of the services like provision of drinking water, health services, irrigation, roads, and bridges, etc. It is an observed phenomenon that the ancient social customs have forced people belonging to SCs/STs to live in separate habitations. As a result of being located in the periphery and due to limited attention by the key government personnel, most of these localities lack basic

amenities like drinking water, street lighting, drainage, link roads, primary health care and schools. To this end, the Seventh five-year plan (1985-90) provides a detailed and systematic plan and allocation of resources in order to provide such basic amenities for the SC/ST habitations. The SC and ST population are entitled to certain Constitutional safeguards ensuring their welfare.

Since 1956, SWD, GoK has formulated various programs and schemes for the upliftment of SCs and STs especially for their integrated development. SWD looks after the welfare of SC/STs, Backward Classes, Minorities, Women and Child Welfare, Physically Handicapped, and other disadvantaged sections of society. In the year 1975, the Women and Child Welfare along with Disabled Welfare were separated into a separate department. The Department of Backward Classes and Minorities was separated in 1977. The Department of Tribal Welfare was separated from this department in 1998. At present, the Commissionerate of Social Welfare is primarily responsible for the development of the SC/ST population.

Align to the mandate of the Indian Constitution and its emphasis on equity, the Government of Karnataka has designed and implemented several programs for the development of SC/ST population (Guru, Shanmugam, Somanna, and Shivaraju, 2015). Besides, being the nodal department, the Social Welfare Department has laid special emphasis on infrastructure development in SC/ST habitations. Specifically, the Pragati Colony Development Scheme was introduced by the GoK for providing infrastructural facilities for the holistic development of the SC and ST colonies. The scheme aims to address the developmental gaps across the colonies in the state and it encompasses the period between 2014 to 2017. As part of the scheme a total budgetary allocation of Rs. 52,075.36 crores were laid out for the development of basic infrastructure and the total expenditure of Rs. 47,703.39 crores were spent on the same (Refer table no. 1 for financial progress of the scheme).

1.1.2 Problem Statement

While there has been sustained planning and implementation of various programs and schemes by the central and state government, especially after the Seventh five-year plan (1985-90) the conditions of the SC/ST population and their habitations have witnessed huge development gaps as compared to the general population and their habitations. In order to bridge the development gaps (Jose, 2019) across the state, infrastructural facilities (CSSEIP, 2014) are considered to be one of the key contributing factors for human development. However, along with such infrastructure facilities providing better quality health, education,

and employment (Hoshiar & Malik, 2001) will enable a holistic development of the community.

The need and relevance of evidence-based study to evaluate the efficacy of planning and implementation of programs and schemes is critical. To this end, the study conducts an evaluation of the performance of SC/ST colony infrastructural facilities scheme under the SCSA/TSA for the period of 2014-2015, 2015-2016 and 2016-2017 in eight districts. The study has covered 5111 respondents. While the study examines the issues related to the planning and implementation of schemes related to infrastructural facilities, it highlights the linkages between infrastructural facilities and other factors contributing to better living conditions, quality of life and social conditions of the SC/ST beneficiaries.

1.1.3 Log Framework

The Government of Karnataka enacted "The Karnataka Scheduled Castes Sub Plan and Tribal Sub Plan (planning, Allocation, and Utilization of Financial resources) Act-2013" to provide for earmarking a portion of state plan outlay for the Scheduled Castes Sub Plan and Tribal Sub-plan in proportion to the population of Scheduled Castes and Scheduled Tribes and to put in place an institutional mechanism for preparation, implementation, and monitoring of sub-plan and for matters connected therewith or incidental thereto.

The Act came into implementation from Financial Year 2014-15 and the Government is making budgetary provision as per the Act. Therefore, the allocation for the development of SC/STs has been increasing every year and utilization of the allotted funds.

The Karnataka Scheduled Caste Sub Allocation and Tribal Sub-Allocation (Planning, Allocation, and Utilisation of Financial resources) Rules, 2017 were enacted for effective implementation of the programs for the welfare of Scheduled Caste and Scheduled Tribe in the State GO no. SWD 167 SLP 2017(Pl) Bengaluru Dated 2/8/2017.

1.2 Choice of Schemes under the Act (2013) & Rules 2017

- I. The schemes that have the potential to accelerate the pace of development of the SCSTs and to bridge the gap in socio-economic development indicators between SC STs when compared to -the other sections of the society.
- II. The schemes should secure quantifiable benefits to the scheduled caste and scheduled Tribe households or are beneficial to locations largely inhabited by the scheduled castes.
- III. Those schemes should be included in the SCSP that enhance the income of the target group and lead to the development of assets such as those related to sectors like agriculture, animal husbandry, dairy development, fisheries, and Agriculture/allied sectors.
- IV. The States should give priority to such schemes which provide basic minimum services like primary education, health, drinking water, nutrition, rural housing, and link roads and electrification to SC ST colonies and Villages.

The Nodal Department will consult the representatives of various Organizations, of SC and ST before finalizing the proposals. It will also invite proposals/ suggestions from District monitoring Committees who in turn consult the District Level Organizations of SC/ST communities.

There are two aspects of the flow of resources for the SCSP and TSP Sub-Plan. Firstly, the direct flow of resources through family and individual-oriented programs aimed at economic development. Secondly, the flow of resources to the programs for Scheduled Caste people through provisions of services, infrastructure, and other facilities.

Thus, under community development schemes under the SCSA/TSA (earlier SCSP/TSP) the funds are provided for the development of SC/ST colonies located in the villages/towns to the above said Departments. The nature of the works includes:

- I. Laying of cement roads in the colony of SC/ST
- II. Drainage works
- III. Community Bhavans in the name of Dr. B.R. Ambedkar and Dr: Babu Jag Jivan Ram, Maharshi Valmiki. etc.
- IV. Short distance approach/connecting roads.

1.3 Progress review

1.3.1 Performance of the program

The proposed scheme for colony development has been implemented by the nodal departments of public works, Rural Development and Panchayat Raj (RDPR), Water Resources Department (Major and Minor Irrigation) and Social Welfare Departments (SWD).

1.3.2 Objectives of the Colony Development Scheme

- I. To provide the benefits of services like provision of drinking water, health services, irrigation, roads, and bridges, etc. to the residential areas of SC/ST people and the areas where they live in the majority.
- II. To provide a better living environment for the people residing in these colonies.

1.3.3 Monitoring arrangements for the effective implementation of the scheme

- a. **District level monitoring committee:** District Monitoring committee under the Chairmanship of D.C of the District. This committee reviews the progress of the Schemes implemented by the Departments.
- b. **Nodal Department:** Social Welfare Department is the Nodal Department for implementation of the Schemes. The District Joint Directors/Deputy Directors of Social Welfare Department are monitoring officers at the District Level as Member Secretaries of DMC.
- c. **Nodal Agency:** This headed by the Hon'ble Minister for Social Welfare is the Monitoring and reviewing authority at State Level.
- d. **State Council:** This Council is headed by the Hon'ble Chief Minister, is the overall authority to approve Action Plans and review implementation.
- e. **Implementing Departments:** District Level Officers of PWD/RDPR (Engineering Division) Irrigation Department (Krishna Bhagya Jal Nigam / Cauvery Niravari Nigama / Karnataka Niravari Nigam and CADA-Command Area Development Authority, etc.)

Table 1: Financial Progress of the Scheme

Amount Rs. in Crores

Year	Amount allocated		Total	Amount spent		Total
	SCSP	TSP		SCSP	TSP	
2014-15	11518.99	4315.18	15834.17	10163.93	3834.41	13998.34
2015-16	11773.54	4582.72	16356.26	11259.48	4344.90	15604.38
2016-17	14253.26	5631.67	19884.93	12998.37	5102.30	18100.67
Total	37545.79	14529.57	52075.36	34421.78	13281.61	47703.39

Source: Dept. of Social Welfare, Government of Karnataka

2. Review of Literature

2.1 Importance of SCSP and TSP

The legislative efforts undertaken by the Indian constitution to close the developmental gap between Dalits, Adivasis and others date back to the 1950s when opportunities were created for SCs and STs in areas of education, employment in public service, and electoral seats through the policy of reservation. The constitution has made provisions to address the legal rights and attend to concerns of ‘Social Justice’ of the disadvantaged; these groups have largely remained economically backward for more than 50 years. Despite these provisions, effective implementation of government schemes that attempt to address the ‘economic empowerment’ of SCs and STs remains a critical area of concern.

The Planning Commission plays a vital role in adopting a planned strategy for balanced and equitable development across various regions and sections of the population. Ever since Independence, the Government of India has adopted the strategy of preparing annual and five-year plans to reduce regional disparities and to meet the development needs of the marginalized communities. Despite its focus on the development of the SCs and STs, none of the five-year plans since 1951 have been able to weave in the pressing concerns of the SCs and STs concerning the economic growth, international trade, industry, agriculture, poverty, unemployment, and regional disparity. The planning process has largely been top-down and, hence, not catered to the needs of the disadvantaged sections of society.

The most important initiative by the Planning Commission was the creation of the Special Component Plan for SCs (SCSP) and the Tribal Sub Plan (TSP) in the 1970s recognizing the special need for a distinction between ‘incidental’ benefits for SCs and STs from the existing government interventions and ‘direct policy-driven’ benefits. The Planning Commission introduced specific strategies of SCSP and TSP for channelling plan funds for the development of SCs and STs following the proportion of SCs and STs in the total population. Thus, SCSP and TSP became important policies that were approved from the constitution, especially from the economic point of view. For the first time, specific allocations are being earmarked towards Scheduled Castes Sub-plan and Tribal Sub-plan as part of the 2011-12 budget, and a specified allocation for primitive tribal groups was increased from Rs. 185 crores to Rs. 244 core (GoI, 2011).

Even after three decades of inception of the SCSP and TSP policies, unfortunately, these two policies are not implemented properly. Closer scrutiny reveals the current situation of Dalits and Adivasis remaining far behind from the mainstream development in terms of literacy gaps are still higher. To further elaborate on the literacy component, a study conducted by the National Commission for Enterprises in the Unorganized Sector (NCEUS) in 2007 states that 88 percent of the SCs and STs belonging to the poor and vulnerable group in India (GoI, 2007). While SC/STs are also denied from economic and productive assets (such as land), education becomes a significant attribute towards gainful, remunerative, and productive employment for them. However, here too, SCs and STs trail behind the national average; having lower literacy rates (including higher gender disparity), lower enrolment rates, and higher rates of educational deprivation. The gaps in the school dropout rate between the SC and the general population show an increasing trend in the higher levels of schooling (GoI, 2011).

2.1.1 Initiatives through the Five-year plans

The Eighth five-year plan (1992-97) had set its agenda for strengthening the basic infrastructural facilities for the SC and ST colonies. However, the Ninth Five-year plan intensified the efforts to bridge the gap between the levels of development of the Scheduled Tribes and those of other sections to ensure that the disadvantaged sections of the population could be uplifted (Suresh, 2014). Construction of school building, the opening of residential schools, distribution of free house site pattas, construction of houses for the poor tribes, and provision of infrastructure facilities to ST habitations were the priority areas.

Further, the primary health care services in rural areas are provided through a network of 1,56,231 sub-centres, 25,650 Primary Health Centres, and 5,624 Community Health Centres in India¹. Despite this, the country's public health system is struggling with a shortage of infrastructure amidst an increase in population, and glaring shortages of doctors, nurses, specialists, technicians, and other health workers. In addition, SCs and STs face various forms of discrimination while accessing public health services. This often discourages them from seeking public health services (GoI-MoHFW 2011; Baru, Acharya & et.al 2010).

¹<https://mohfw.gov.in/sites/default/files/21Chapter.pdf>

Table 2: An overview of important highlights on Developmental Strategies for SCs & STs as part of the Five-Year Plans

Five Year Plan	Plan Strategies for SCs	Plan Strategies for STs
First Five Year Plan (1951-56)	Removal of untouchability and improving the living conditions of SCs. Untouchability was abolished in 1955.	Principle of general development programs to target the backward classes including STs.
Second Five Year Plan (1956-61)	Improving their social status and providing them full educational and economic opportunities.	Forty-three Special Multi-Purpose Tribal Blocks (SMPTBs) were created for about 25,000 people as against 65,000 in a normal block.
Third Five Year Plan (1961-66)	Supplementing benefits from programs of agriculture, cooperation, irrigation, small industries, communications, education, health, housing rural water supply.	Approach of equity of opportunity and to bring about a reduction in disparities.
Fourth Year Plan (1969-74)	Proposal for full integration of SCs with the development plans of the district, providing house-sites to SCs and other weaker sections, and conferring proprietary rights on homestead land already occupied by them.	Special development projects in the agency areas of Andhra Pradesh, Bihar, Madhya Pradesh, and Odisha.
Fifth Five Year Plan (1974-78)	Various agricultural programs, Finance and Development Corporations and 20-Point Economic Program was announced by the Prime Minister in 1975. Special Component Plan for SCs (SCSP) was introduced in 1979.	The TSP stipulated that funds of the states and the Centre should be quantified on ST population proportion basis.
Sixth Five Year Plan (1980-85)	Special emphasis was laid on the Special Component Plan and Tribal Sub plan which aimed at the comprehensive development of SCs and STs through sharing of physical and financial benefits from various programs. Special Component Plans, Special Central Assistance, Scheduled Castes Development Corporations (SCDCs) for development of SCs.	Special emphasis on family-oriented economic activities for STs. A Modified Area Development Approach (MADA) was adopted across tribal concentrated pockets of 10,000 populations.
Seventh Five Year Plan (1985-90)	The SCST Prevention of Atrocities Act 1989 was enacted. Promotion of occupational mobility of SCs; Liberation from scavenging and employment of SC sanitation workers; economic development of SCs and basti oriented schemes for improving the living conditions of SCs.	Tribal Cooperative Marketing Development Federation (TRIFED), National Schedule Castes and Scheduled Tribes Finance and Development Corporation (NSFDC) was established at the national level

Although the Eleventh Five-Year Plan (2007-2012) inculcated the slogan of “inclusive growth”, with a special focus on the development of SCs and STs since they continue to lag in nearly every aspect of development. The major emphasis was placed on expansion and inclusion of higher education, residential schools for SC/ST girls, adult education establishment of cultural institutions in fields of archaeology, anthropology and ethnography, archives, libraries, museums, improvements to maternal health, national food security mission, etc.(GoI, 2011). The Twelfth Five-Year Plan (2012-17) aspires to be more responsive to the disadvantaged sections of the country's population. However, the analysis of the five-year plans shows critical gaps and concerns. Before 2005-2006, there were no official reporting on budget paper regarding the fund allocation and expenditure details made for the SCSP and TSP both by the central and the state. The information on fund flow for SCSP and TSP, provided by most of the state governments cover only the State Plan Schemes, and not the Central Plan Schemes (CPS) or Centrally Sponsored Schemes (CSS). While CPS and CSS account for a major share of total plan expenditure in the states, thus a lot more attention needs to be paid on the union budget papers outlays meant for the SCSP and TSP. Further, the analysis of the Union Budgets from the lens of Dalits and Adivasis using Statements 21 and 21A and the Detailed Demands for Grants reveals several gaps in the implementation of SCSP and TSP.

Chakrabarty and Sultana (2008) have summarized their findings on public policy and its impact on the SC and ST in the Indian context. Their findings are as follows

- Firstly, planning was not used as an instrumentality for the uplift of SC in any significant way.
- Secondly, a major part of plan expenditure even with limited allocations came from the State Sector.
- Thirdly, the planning effort for the uplift was limited, concentrated on the educational aspect, and more particularly on higher that was useful in preparing SCs for the middle class or elite in positions in the society.

Analysing and understanding the budget expenditure meant for the SCSP and TSP is crucial when one tries to gauge the development and upliftment component of the SCs and STs. Moreover, it provides a critical lens and showcases the gaps in budget implementation. For instance, an analysis of Union Budget 2011-12 revealed that of the 105 Union departments and ministries, only 24 have allocated funds under SCSP. The 2011-12 budgets did not

allocate the recommended percentage of allocation for SCSP (it had allocated only 9 percent of the total plan's allocation for the SCSP)(GoI, 2011).

Further, it was evident that the improvement in infrastructure is an essential prerequisite for sustainable economic and social growth. According to the composite index of infrastructure conceptualized by the Planning Commission, states like Himachal Pradesh, Gujarat, Uttar Pradesh, Karnataka, Kerala, and Tamil Nadu have proved improvement in agriculture, communication, banking, electricity, and railways. However wide disparities in social and economic development, employment, and infrastructure amenities exist across and within the regions, which often poses a major challenge for policymakers and economists. Disparities across the states and within the state in terms of basic amenities like health facilities, bank facilities, road connectivity, clean drinking water, post office, and telephone connection still exist (Jose, 2019).

The Central Government has formed a committee to revisit the National Water Policy -2019 to bring in pertinent changes in water governance structures and regulatory framework; the challenge of providing adequate drinking water through integrated efforts for the disadvantaged sections of the society needs remains. For instance, the problem of drinking water is more acute in hamlets that are in higher hilly regions (Suresh, 2014).

The Karnataka State Budget 2019-2020 has increased its percentage share expenditure by 11% for social welfare and nutrition; 15% for water supply, sanitation, housing, and urban development; and a decrease of 4% for the welfare of SC/ST/OBC and minorities². Programs and schemes initiated under the SCP for the economic development of scheduled castes are not making the desired level of impact on their socio-economic status due to various lacunae at policy and implementation level (Maurya, 2011). One of the persistent problems with the methodology of implementation of SCA at the state level was that most of the development schemes/programs of infrastructure relating to roads, major irrigation projects, power, and electricity sector megaprojects are not accruing any direct immediate benefits to SCs. Further, the funds allocated were not budgeted and released on time. The expenditure in many of the States/UTs was not even 50% of the allocated funds (CSSEIP, 2014). For instance, the utilization of funds in the states for the National Rural Drinking Water Program (NRDWP) was less than 50 percent across the states of Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Tamil Nadu, Assam and Manipur (CBGA, 2011).

²<http://prsindia.org/parliamenttrack/budgets/karnataka-budget-analysis-2019-2020> accessed on January 12,2020

Systemic weaknesses in the policy interventions have perpetuated the socio-economic and regional inequalities. Studies show that the majority of the poor who are socially marginalized get the least access to preventive and curative health care services (Gupta and Dasgupta 2007; Govender and Kekana,2007). And the inequality and poorer service were furthermore evident amongst the women belonging to the SC and ST communities (Iyer et.al 2007). The households belonging to Scheduled Tribe, Scheduled Caste, and lower strata of Caste, Ethnicity, and Class were found lagging in their level of access and rate of improvement in access to basic amenities (Kumar, 2015).

Despite these efforts, some of the crucial and unresolved issues of STs are low literacy and high dropouts and inadequate or inaccessible health services. Factors like poverty, malnutrition, poor environmental sanitation, poor hygiene, lack of safe drinking water, lack of access to health care, social barriers preventing access to health services, and so on are contributing towards increasing disease burden of the STs (Suresh, 2014). For instance, it was evident that in the state of Tamil Nadu the socio-economic development was positively correlated with the growth and progress of agricultural development and infrastructural facilities (Narain, Sharma, Rai, and Bhatia, 2000). These welfare efforts have produced little practical success and there is an evident pattern of disparities between social groups in human development and poverty, prejudicing SCs, STs, and other general sections at the national and state levels which have resulted in a greater gap that separates SCs, STs, and other groups (Thorat and Venkatesan 2014).

Table 3: An overview of some of the national and state-level general schemes that benefit SC/ST beneficiaries

Name of the Scheme	Department	State/ Country	Objective	Key Features	Target Beneficiaries
Pradhan Mantri Krishi Sinchai Yojana (PMKSY)	Department of Agriculture, Cooperation & Farmers Welfare	India	With the motto of ‘Har Khet Ko Paani’, the scheme aims to provide end-to-end solutions in irrigation supply chain, viz. water sources, distribution network and farm level applications	Creates sources for assured irrigation and protective irrigation by harnessing rainwater at micro level through ‘Jal Sanchay’ and ‘Jal Sinchan’.	General scheme for supporting farmers
Infrastructure Development Program	Ministry of Micro, Small & Medium Enterprises	India	To support the sustainability and growth of MSEs by addressing common issues such as improvement of technology, skills and quality, market access and access to capital	Capacity building of MSEs for common supportive action through formation of self-help groups, consortia, upgradation of associations, creation/upgradation of infrastructural facilities in the new/existing industrial areas/ clusters of MSEs; setting up common facility centres.	General scheme for supporting MSEs
Entrepreneurship and Skill Development Programme (ESDP)	Ministry of Micro, Small & Medium Enterprises	India	To motivate youth representing different sections of the society including SC/ST/Women, differently abled, Ex-servicemen and BPL persons to consider self-employment or entrepreneurship as one of the career options	Promotes new enterprises, capacity building of existing MSMEs and inculcating entrepreneurial culture in the country	General Scheme for supporting youth

Table 3: An overview of some of the national and state-level general schemes that benefit SC/ST beneficiaries (Contd.)

Name of the Scheme	Department	State/ Country	Objective	Key Features	Target Beneficiaries
Deen Dayal Upadhyaya Grameen Kaushalya Yojana	Ministry of Rural Development	India	To drive this national agenda for inclusive growth, by developing skills and productive capacity of the rural youth from poor families	Funds training projects benchmarked to global standards, with an emphasis on placement, retention, career progression and foreign placement.	General Scheme for supporting rural youth
Pradhan Mantri Awas Yojana (Urban)	Ministry of Housing and Urban Affairs	India	To provide housing for all in urban areas by year 2022	Houses are given to all eligible families/ beneficiaries against the validated demand for houses for about 1.12 crore.	General scheme for urban area residents
Prime Minister Employment Generation Scheme	Ministry of Micro, Small & Medium Enterprises	India	To generate employment opportunities in rural as well as urban areas of the country through setting up of new self-employment ventures/projects/micro-enterprises.	The maximum cost of the project/unit admissible under the manufacturing sector is Rs.25 lakh and under business/service sector is Rs.10 lakh.	General scheme

Table 4: An overview of some of the national and state- level-specific schemes that benefit SC/ST beneficiaries

Name of the Scheme	Department	State/ Country	Objective	Key Features	Target Beneficiaries
Central Sector Scholarship Scheme of Top-Class Education	Department of Social Justice and Empowerment	India	To provide full financial support for SC students pursuing studies beyond 12th grade	SC students who meet the eligibility criterion will be awarded a scholarship to meet full tuition fees, living expenses, books and stationery and a latest computer.	Specific Scheme for supporting SC students
National Fellowship	Department of Social Justice and Empowerment	India	To provide fellowships in the form of financial assistance to SC students for pursuing higher education leading to M.Phil./Ph.D. degrees	The scheme provides for new 2000 Fellowships (1500 Junior Research Fellows for Humanities/ Social Sciences and 500 Junior Research Fellows for Science stream) per year to eligible Scheduled Caste students to undertake advanced studies and research leading to M.Phil./ Ph.D. Degrees	Specific Scheme for supporting SC students
Special Credit Linked Capital Subsidy Scheme (SCLCSS) for MSEs under National Scheduled Castes and Scheduled Tribes Hub Scheme	Ministry of Micro, Small & Medium Enterprises	India	To promote new enterprises and support the existing enterprises in their expansion for enhanced participation in the public procurement.	The scheme aims at facilitating purchase of plant & machinery by providing 25 per cent upfront capital subsidy to the existing as well as new SC/ST owned MSEs on institutional finance availed of by them.	Specific Scheme for supporting SC/ST community; specifically, to those who own MSEs

Table 4: An overview of some of the national and state- level-specific schemes that benefit SC/ST beneficiaries (Contd.)

Name of the Scheme	Department	State/ Country	Objective	Key Features	Target Beneficiaries
Swarna Jayanthi Shahari Rozgar Yojana	Department of Urban Development	Karnataka	To enable the urban poor to access employment opportunities provided by the market or by undertaking self-employment	Use of capacity building programs to empower the urban poor and reduce urban poverty	General scheme for urban poor
Karnataka Urban Water Sector Improvement Project- KWASIP	Department of Urban Development	Karnataka	To improve urban water supply services and provide sustainable, efficient and commercially oriented service provision	Three towns namely Belgaum, Gulbarga and Hubli-Dharwad have been identified for the first stage	General scheme for Belgaum, Gulbarga, and Hubli-Dharwad
Andhra Pradesh Micro Irrigation Project (APMIP)	Irrigation Department	Andhra Pradesh	To enhance crop productivity by improving the water use efficiency through Micro Irrigation Systems like drip irrigation which is an efficient method of applying water and nutrients to crops in the root zones	The scheme provides 100% subsidy for Small and Marginal farmers of SC/ST category limited to Rs.2 lakhs (< 5 acres)	General scheme for supporting farmers
Samagra Krishi Abhiyaana	Department of Agriculture	Karnataka	To increase crop productivity in the present agricultural scenario and to reach out improved technologies to farmers through Single window approach	Comprehensive Agriculture Information Unit, Agriculture Exhibition and Farmer-Scientist interaction are a few features of the scheme	General Scheme for supporting farmers

Table 4: An overview of some of the national and state- level-specific schemes that benefit SC/ST beneficiaries (Contd.)

Name of the Scheme	Department	State/ Country	Objective	Key Features	Target Beneficiaries
Pashu Bhagya	Animal Husbandry and Veterinary Services	Karnataka	To assist farmers in establishing cattle, sheet, goat, pig, poultry units and maintaining them	Backend subsidy of 33% to farmers belonging to Scheduled Caste and Scheduled Tribes and 25% to other small and marginal farmers will be provided to establish cattle, sheep, goat, pig, poultry units in availing maximum loan of Rs.1.20 lakh from commercial banks	General scheme for supporting farmers
Mathrupoorna - One Full Meal Scheme	Ministry of Women and Child Development	Karnataka	To provide one complete Meal to Pregnant and Lactating mothers along with IFA Supplementation, Calcium and deworming followed by counseling.	Hot cooked meal to pregnant women and breastfeeding mothers is provided through the existing system of Anganwadi Centres.	General Scheme for supporting pregnant and lactating mothers
Investment Promotion Subsidy on Fixed Capital	Commerce and Industries Department	Karnataka	To provide incentives and concessions to SC/ST Category entrepreneurs	KIADB & KSSIDC will reserve 22.5% of plots and sheds for SC/ST, allot at subsidized rates, trained entrepreneurs by CEDOK will be provided with start-up loans with interest subsidy and flexible repayment schedule	Specific Scheme for supporting SC/ST community; especially for SC/ST entrepreneurs
Bhagyalakshmi Scheme	Ministry of Women and Child Development	Karnataka	To promote the birth of girl children in below poverty line (BPL) families and to raise the status of the girl child in the family and society in general	Financial assistance is provided to the girl child through her mother/father or natural guardian subject to the fulfilment of certain conditions	General scheme for Girl children

The need to engage in comprehensive and well-informed policy-making measures is critical to bridge the existing gap. The disparities mentioned above in terms of delivery of basic amenities have led to stunted growth of the nation and it indicates a preponderance of inequitable policies and administrative efforts, supplemented by a casual attitude and tolerance for market-led provisions of basic amenities (Kumar, 2015).

In conclusion, the following are few pointers emerged from the available literature and are relevant during policy formulation. The need to relook into the shortcomings of the Centrally Sponsored Programs (CSP) which are often affected by being time-bound and vertical interventions are crucial for states to plan and take appropriate budgetary decisions. Thus, it is important to foster the coordination and synergies across schemes, initiatives, programs, departments, and ministries both at the state and central level. Further, while there is a tendency to emphasize more on groups that are marginalized and Below Poverty Line (BPL); the need to have a universal focus on development and creating synergies across public and private sectors seems appropriate. Also, the appropriate combination of legislative, regulatory and governance measures must be formed to make the public and private stakeholders more accountable.

2.2 Summary of review of literature

From the above review of literature following are some of the core themes: selection of colonies and allocation of schemes; awareness level of beneficiaries; and impact of welfare schemes for Scheduled caste and Schedule tribes.

Below are some of the observations from the review of literature under the respective themes:

i. Selection of colonies and allocation of schemes

- The assessment of policy design and planning (Shankar, 2010) and empirical assessments of such policies (Fathima et.al., 2015; Dey & Mishra, 2014; Gupta et.al., 2011; Priyadashree & Hossain, 2010) related to socio-economic development of marginalised communities in India has been emphasised.
- The location and population of the beneficiaries (Thind et.al., 2008) are the key factors for selection of colonies and allocation of schemes for the development of the beneficiaries.
- According to Sedwal and Kamat (2008) schemes related to providing access to elementary education for the SC/STs (beneficiaries) is the most preferred reason for

allocation of schemes especially in Madhya Pradesh, Andhra Pradesh, Orissa, and Karnataka.

- In sum the above literature provides insights on the need for holistic development of the beneficiaries by integrating various schemes pertaining to health, education, skill and employment generation, and infrastructural facilities.

ii. Awareness of the beneficiaries (SC/STs)

- According to Vikram et.al (2013) and Rashid & Sen (2010) suggest that the awareness amongst the beneficiaries related to the schemes and its impact is considered to an important parameter for the overall development of the beneficiaries.
- Review of literature suggest that there exist significant gaps in the awareness levels amongst the beneficiaries and utilization pattern of the beneficiaries (Gupta et.al., 2011).
- Literature specifies the need for full coverage, comprehensive planning, proactive education of the community people (Kabita et.al, 2015).

iii. Impact of welfare schemes for schedule caste and schedule tribes

- Chitnis (1972) stated that programs for the betterment of the status of the Scheduled Castes have concentrated heavily on their education.
- According to Rao (1964) welfare schemes and plans for the SC/ST community has had some impact on their education and economic development. Similarly, Hoshiar & Malik (2001) highlight the impact of such schemes on the employment and education of the SC/STs.
- The importance of accuracy related to identification of beneficiaries (Rajan, 2001) and effective utilisation of funds (Guru et.al., 2015; CBGA, 2011) related to the SC/STs are some of the prevailing issues highlighted in the literature.
- Rao and Babu (1994) highlight the need for establishment of SC/ST Corporation to address the issues related to misutilization of funds earmarked for the beneficiaries.
- Programmes/schemes initiated under the Special Component Plan especially the SCs are not making desired level of impact on their socio-economic status due to various lacunae in policy planning and implementation (Maurya, 2011).

2.3 Theory of Change and Log Frame

The evaluation framework-based attempts to explain the framework for the colony development scheme (log frame). The logical framework is used for the planning, designing, implementing, monitoring, and evaluating the project. For this study, the log frame refers to the evaluation of the performance of SC/ST infrastructure facilities of the colony scheme under SCSA/TSA for the period of 2014-15, 2015-16, and 2016-17. The main objective of the study is to identify developmental works and its relevance to the beneficiaries. The hypothesis would be to test/validate the impact of the developmental works on the living conditions of the people in the colonies. The overall relevance could be categorized into various indicators like health, hygiene, education, socio-economic status, accessibility, and mobility.

Figure 1: Flow chart of the Log Frame

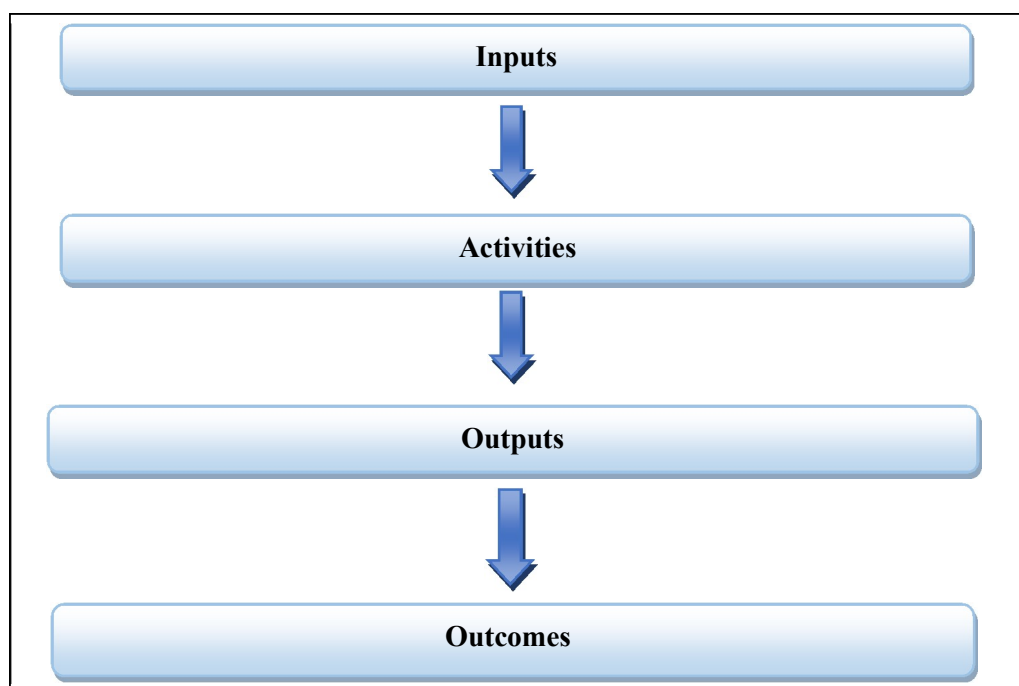


Table 5: Conceptualised Log framework for Evaluation

No.	Objective	Activities	Input(s)	Output Indicator	Outcome Indicator	Assumption
1	<p>a. Process of selection of colonies and schemes</p> <p>b. Participation of the organizations and people in the selection of the activities for colony development</p>	<p>a. Review of annual reports</p> <p>b. Review of the District Monitoring Committee Reports</p>	<p>a. Annual report of the Social Welfare Department</p> <p>b. Reports of the District Monitoring Committees</p>	<p>a. Obtaining the details regarding the selection of colonies and schemes</p> <p>b. Details of the participation of organizations and people in the selection of activities</p>	<p>a. The rationale for selection of the colonies</p> <p>b. Consultation and participation of the organizations and people in the process of selection of activities for colony development</p>	<p>a. Assuming the availability of annual reports (2014-2017) of the concerned departments</p> <p>b. Assuming the availability of District Monitoring Committee Reports of the concerned departments</p>
2	To assess the impact on the living environment of the residents in the SC/ST colonies and surroundings	Assessment of morbidity events and quality of life of the beneficiaries	Responses from the beneficiaries to the questionnaire tool	Obtaining details about general living conditions, health and illness from the beneficiaries	Perception of the beneficiaries	At least 70 % of the beneficiaries respond to the questionnaire
3	To make a comparative analysis of the performance of the scheme across all the divisions and sample districts	Assessment of the performance of the schemes across all the divisions and sample districts	Field work to assess the performance of the scheme across all the divisions and sample districts	To collate information about the performance of the scheme across all the divisions and the sample districts	The general perception of the beneficiaries regarding the implementation of the scheme across all the divisions and sample districts	Comparable performance indicators area available across the divisions
4	To what extent the community halls are used for social and cultural integration of the community. What is the response of field level rural people for this work?	To obtain field-level responses from the colony people regarding the utility of community halls	Questionnaire tool used to obtain the responses from the beneficiaries.	To collect information from the beneficiaries about the utility of the community halls across the sample districts	Index of social-cultural exchange	At least 30% of the community halls are available for observation

Table 5: Conceptualised Log framework for Evaluation

No.	Objective	Activities	Input(s)	Output Indicator	Outcome Indicator	Assumption
5	To examine as to what extent the convergence of other departments like PWD/ RDPR engineering division and irrigation departments has taken place	Review of the select annual reports and District Monitoring Committee reports	Annual reports of the Social Welfare Department and district monitoring committee reports	Semi-structured/ FGD interviews with concerned personnel	Status of convergence among the various departments	Assuming reports are available and sufficient documentary evidence for intersectoral convergence and availability of concerned personnel for interviews
6	To understand the awareness level of beneficiaries about SCSA/TSA	Assessment of the awareness level of the beneficiaries	Questionnaire tool to understand the awareness level of the beneficiaries	Information obtained from the beneficiaries about their awareness about SCSA/TSA	Awareness of the beneficiaries	Assuming 70% of the beneficiaries respond to the questionnaire
7	To evaluate the deficiencies in the implementation of the scheme (Related to quality/quantity and methodology)	Assessment of the gaps and shortcomings in the implementation of the scheme through primary and secondary sources	Assessment of selection of colonies and works through annual reports from the Social Welfare Department	Semi-structured/FGD interviews with concerned personnel; questionnaire tool and literature review	Gaps and deficiencies in implementation	Assuming 70% of the beneficiaries respond to the questionnaire; relevant literature regarding works related to the scope of the study and availability of concerned personnel for interviews
8	To study non-coverage colonies in the district	Assessment of the non-coverage colonies in the district	Assessment of the non-coverage colonies using a detailed questionnaire	To collect information from the beneficiaries of the non-coverage districts	Status of the non-coverage districts	Assuming at least 1% of non-coverage sample works in colonies

2.3.1 Evaluation Methodology

The present study envisions to evaluate the works executed through the Public Works Department (PWD) and Social Welfare Departments (SWD) during the period from 2014-15 to 2016-17 are taken up for evaluation. The evaluation of works was conducted across the 30 districts of the State. In the first phase of evaluation, the following 8 districts are selected randomly from the four divisions in the State by the Department. Two districts are drawn from each division. Therefore, the scope of the study covers the following districts.

Table 6: Divisions and Districts

Division	District
Belagavi	Belgaum
	Bijapur
Bangalore	Kolar
	Tumkur
Kalaburgi	Kalaburgi
	Raichur
Mysore	Mysuru
	Chamarajanagar

Source: Terms of Reference.

The study covers the following issues: Functioning of various committees; Process of selection of works; Coverage of colonies; Implementation of works-types of work executed; Execution of works- methods; Status and quality of works and Impact of the works on the individual and community life of the people.

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The number of completed works and expenditure during 2014-15 till 2016-17 in the eight districts is given below

Table 7: Works completed and expenditure 2014-15 to 2016-17

Amount Rs. in Crores

Year	2014-15	2015-16	2016-17
No. of Completed Works	1208	1885	1414
Total amount spent	Rs.14,138.27	Rs. 24,934.8	Rs. 20370.78

Source: Dept. of Social welfare, Government of Karnataka.

2.3.2 Objectives and Issues for Evaluation

It is observed from the above table, that the amount spent on the development of colonies under the scheme is increasing phenomenally year after year clearly. This indicates the importance attached by the GoK to the scheme and demand from the beneficiaries for the same. Till 2016-17 a record amount of Rs. 47,703.39 crores have been spent for construction works in the colonies, covering construction of Cement Roads (CC roads), Ambedkar Bhavans, Babu Jaga Jivan Ram, Maharshi Valmiki Community Bhavans, Drainage works, and connectivity works. Hence it is proposed to conduct an evaluation of the implementation of the scheme with the broader objectives of understanding its impact and take up mid-course-corrections if any in the scheme for strengthening its implementation and enhancing the outcomes.

2.3.3 Objectives of the Evaluation:

1. To study the process of selection of colonies and schemes and participation of the organizations and people in the selection of the activities for colony development.
 - To evaluate whether the selection of the SC and ST habitations were based on the guidelines of the development scheme (which would include a selection of habitations having above 70%; above 50% up to 70%; or having below 50 % of SC or ST or combined of SC/STs population).
 - To obtain the relevant data from pertinent stakeholders like the nodal department, beneficiaries, and others regarding the selection and process of development works.
 - To review whether the developmental works are carried in the colony or outside the colony. Secondary data from the nodal department and field data will be used to substantiate this objective.
2. To assess the impact on the living environment of the residents in the SC/ST colonies and surroundings.
3. To make a comparative analysis of the performance of the scheme across all the divisions and sample districts.
4. To map the developmental works and completion status of all the developmental works
5. To what extent the Community halls are used for social and cultural integration of Community. What is the response of field level rural people for this work?
 - The study envisages to capture the relevance and usage of community halls in the colony; and understand how it is aiding in social mobility and upliftment of the community members.

6. To examine as to what extent the convergence of other departments like PWD/RDPR Engineering division and Irrigation departments has taken place.
7. To understand the awareness level of beneficiaries about SCSA/TSA
 - The survey has covered the perceptions and awareness of the community members for the Karnataka scheduled castes sub-allocation and tribal sub-allocation (planning, allocation, and utilization of financial resources), rules, 2017. Specific questions were asked in this regard. Also, the survey tool has covered the aspect of the perception of colony development schemes and plans to obtain insights from the community members/beneficiaries.
8. To evaluate the deficiencies in the implementation of the scheme (related to quality/quantity and methodology)
9. To study non-coverage colonies in the district

2.3.4 Details of infrastructure facilities

The present study aims to conduct an evaluation for the following infrastructural facilities across the sample divisions and districts

- Laying of cement roads
- Drainage works
- Community Bhavans in the name of Dr. B.R. Ambedkar and Dr: Babu Jag Jivan Ram, Maharshi Valmiki. etc.
- Short distance approach/connecting roads.

2.3.5 Evaluation Framework for Infrastructure and Social Empowerment

To systematically and systemically engage in collating data and literature from the field and the domain respectively, the study develops and adopts an evaluation framework (see Figure 2 below).

Figure 2: Framework for Evaluation of Infrastructure Scheme

	Resources	Stakeholders	Agencies	Outcomes
[Provision/ Evaluation of]	Infrastructure	[to] Beneficiaries	[by] Government	[for] Hygiene
	Non-infrastructure	Non-Beneficiaries	Social Welfare Dept	Economic
			Public Works Dept	Empowerment
			RDPR Dept	Social mobility
			District Commissioner	Social Status
			Non-Government Industry	Human Development
Possible Pathways: 2*2*6*6= 144				

Source: Author's Illustration (Singai, C., & Chandra, A. (2019))

Figure 2 illustrates the combinatorial complexity of providing infrastructural and non-infrastructural resources by the agencies for specific outcomes to the beneficiaries and non-beneficiaries. The framework highlights the need for comprehensive approach in identifying resources, stakeholders, agencies, and outcomes (See Annexure 4 for the glossary) for effective planning and implementation of schemes related to infrastructural facilities. The framework provides multiple pathways for a comprehensive approach, for instance

Two illustrative pathways could be:

- a) Provision of infrastructure to beneficiaries by government-Social Welfare Department for hygiene
- b) Provision of non-infrastructure to non-beneficiaries by industry for accessibility

Such illustrative pathways can be represented through the framework leading to 144 potential pathways to pursue a comprehensive evaluation of schemes related to infrastructure. In other words, the framework (figure 2) provides a systematic approach to evaluate infrastructure scheme as part of the SCSP/TSP. Most of the questions in the questionnaire, IDIs and FGDs have been informed by the dimensions and elements of the framework (figure 2). For instance, the statements pertaining to the perception of beneficiaries about impact of infrastructure on their social status was derived from the above framework. Refer Annexure 2 for the detailed questionnaire and tool.

2.4 Evaluation matrix

Indicator	Source of information	Data collection
Impact of laying cement roads	Beneficiaries, Annual reports, and District monitor committee reports	Questionnaire tool, FGDs, Desk review
Impact of Drinking water and sanitation works	Opinions of the Beneficiaries, district health reports	Questionnaire tool, FGDs, Desk Review
Impact of Community halls	Beneficiaries, Gram Panchayat members.	Questionnaire tool, FGD's, Field observation
General wellbeing of the beneficiaries	Beneficiaries	Questionnaire tool, FGDs, case narratives
Impact of infrastructural works	Beneficiaries, departmental personnel, reports and documents	Questionnaire, interviews, FGDs, case narratives

2.4.1 Detailed Elaboration of the Evaluation Matrix

Indicator: Impact of laying cement roads		
Questions	Source of information	Method of Data Collection
<ol style="list-style-type: none"> 1. Has the laying of cement roads improved mobility and access among the people of the community 2. I feel satisfied with the laying of cement roads in the community 3. The cement roads work and drainage work in the colony has been completed on time 4. Colony people use cement roads for drying ragi/paddy/pulses/oil seeds. 5. The laying of cement roads has facilitated /enhanced connectivity and mobility of people from colony to the subsequent areas 6. The roads are of poor quality and has lot of potholes and patchy areas 7. Laying of cement roads has helped to reduce maternal deaths 8. Laying of cement roads has aided in easy movement of bullock carts, cycles, two and four wheelers. 9. Laying of cement roads has aided in increased access to hospitals and schools. 10. Laying of cement roads has helped to reduce infant deaths (due to better access to hospitals). 11. The roads are constructed with less planning 12. Improper construction of roads has resulted in accidents and mishaps 13. The quality of cement roads has been very good 	Beneficiaries, Annual reports and District monitor committee reports	Questionnaire tool, FGDs, Desk review

Indicator: Impact of Drinking water and sanitation works		
Questions	Source of information	Method of Data Collection
<ol style="list-style-type: none"> 1. The colony has better drinking water connectivity 2. Every house in the colony has drinking water facilities 3. There is a continuous supply of drinking water to the houses in the colony 4. Drinking water supplied is of good quality 5. There is an irregular supply of drinking water in the colony 6. Drinking water is of poor quality 7. There are instances of ill health due to poor drinking water 8. Water tanks are cleaned and maintained on a regular basis 9. I feel satisfied with the drainage work in the community. 10. The cement roads work and drainage work in the colony has been completed on time. 11. The quality of drainage work has been very good. 12. Storage of drainage water has resulted in the rise of files and mosquitoes. 13. Every house in the colony has well planned and good drainage facility. 14. Often, there are blockages in drainage water 15. The quality of work with respect to drainage is very poor 16. The department has failed to address the problem of drainage blocks on a timely basis 	<p>Opinions of the Beneficiaries, district health reports</p>	<p>Questionnaire tool, FGDs, Desk review</p>

Indicator: Impact of Community halls		
Questions	Source of information	Method of Data Collection
<ol style="list-style-type: none"> 1. The community hall/samudaya bhavans was constructed on time in the colony 2. The community hall/samudaya bhavan was constructed based on the demand of the people in the colony 3. The community hall/samudaya bhavan is used only for social and cultural gatherings like festival's, marriage etc. 4. The community hall/samudaya bhavan is used to provide education and training for youths in the colony 5. The community hall/samudaya bhavan is off good quality and is well maintained 6. The Facilities (kitchens, toilets, common area, rooms) in the community halls are hygienically maintained 7. The community hall is maintained by the respective custodian 8. The community halls are frequently used for cultural and social gatherings 9. The community halls are used for educational purposes 10. Community halls are often misused 11. The infrastructure of community halls are of poor quality 	Beneficiaries, Gram Panchayat members	Questionnaire tool, FGDs, Desk review

Indicator: General Health and wellbeing of the beneficiaries		
Questions	Source of information	Method of Data Collection
<ol style="list-style-type: none"> 1. Diseases like TB, Malaria, Encephalitis, Diarrhea, etc. were common due to storage of drainage water in the colony 2. Diseases like TB, Malaria, Encephalitis, Diarrhea, etc. have reduced after the drainage work in the colony 3. The infant/child survival rate has increased in the colony after the development works 4. There has been dirty smell arising from the storage of drainage water in the colony 5. Storage of drainage water has resulted in the rise of flies and mosquitoes 6. The pollution in the colony has reduced in the colony after the completion of development works 	Beneficiaries	Questionnaire tool, FGDs, Desk review

Indicator: Impact of infrastructural works		
Questions	Source of information	Method of Data Collection
<ol style="list-style-type: none"> 1. The people in the colony were consulted before the initiation of the developmental works 2. The people in the colony were involved in the discussions about developmental works 3. The people in the colony were informed about the development scheme before it was started 4. I feel good about the new facilities in the colony 5. The new facilities have aided in improvement of your social status 6. The scheme should continue to work in its current form 7. I feel that the living standards has improved after the new facilities being implemented in the colony 8. The scheme needs to be modified and redesigned in its approach and initiatives 9. The colony has all the basic amenities in good working conditions 10. You approached the taluk personnel in demand for development works (drinking water/drainage/cement roads) for the colony 11. The colony is well maintained after the development works 12. The development works in the colony was needed and completed on time 13. The scheme has helped to bridge the infrastructural gap between the colony and other colonies (in comparison with general colonies) 14. You approached the taluk personnel in demand for development work (drinking water/drainage/cement roads) 15. The development works has enhanced self-respect of the people in the colony 16. The personnel will immediately address the problems pertaining to development works on a timely basis 17. Development works were started and completed within the stipulated time 18. The sanctioning authority and executing authority had consulted the colony members before the works were initiated (public works department personnel) 19. The community hall/samudaya bhavan was constructed based on the demand of the people in the colony 20. Overall, the quality of work of development works in the colony has been very good 	Beneficiaries, departmental personnel, reports and documents	Questionnaire tool, FGDs, Desk review

2.5 Methodology

The study is explorative and descriptive in nature. The study adopts both qualitative and quantitative methods to collect data from the individual beneficiaries and personnel from SWD. The following components will be covered as part of the evaluation study:

- Review of relevant literature
- Field data (quantitative and qualitative) obtained from the beneficiaries and personnel at respective departments
- Collation of the secondary data available at the State and the district level, from various reports and surveys
- Focus Group Discussions (FGDs) and In-Depth Interviews (IDI) will be used to identify specific narratives to substantiate quantitative insights; and
- The data analysis and the major findings will be presented using simple statistical techniques like percentage, average, index scores, correlation and regression, cluster analysis.

The entire study is conducted in three phases: Inception and Design Phase; Field Study and Data Consolidation; and Analysis and Report preparation.

Phase I: Inception Phase

This phase consisted of sharing the detailed study plan and suggesting the design of the study with the client. Based on the review of existing information from available resources and documents, the evaluation was carried out. During this phase, the study team also prepared a checklist and tools required to collect information from the beneficiaries and personnel along with the methodology to address the objective of the study. The client gave in their comment and feedback to improve the methodology. The study design and tools to collect information was further revised based on the comments and feedback from the client. A detailed inception report was submitted to the client.

Phase II: Field Study Phase

This phase included data collection using questionnaire tools with the beneficiaries and non-beneficiaries across the eight taluks; FGD's with beneficiaries, panchayath members; and IDI with the personnel from SWD, and Director of SWD, GoK. The data was collected using structured/semi-structured questionnaires, open discussions, and interviews.

Phase III: Data Consolidation, Analysis, and Reporting

Once the data was obtained from primary interviews and secondary sources, the task of data consolidation, analysis and reporting was done. The draft report has been prepared and submitted in accordance with the objectives of the study for review by the client.

2.5.1 Sample Details

The study covers eight districts of Karnataka state; the districts represents four administrative divisions. The study covered both rural and urban areas. The study used multistage stratified random sampling to represent the overall development works conducted across the eight districts. The table below provides an overview of the number of works implemented at various district.

Table 8: Sample details and Sample Size

DISTRICTS (TALUKS)	2014-15		2015-16		2016-17	
	Total	Sample	Total	Sample	Total	Sample
Belagavi (10)	134	45	189	46	163	50
Vijayapura (5)	47	16	71	17	67	20
Raichur (5)	87	30	105	25	73	22
Kalburgi (7)	120	40	195	47	143	45
Tumkur (10)	269	90	442	107	309	92
Kolar (6)	345	114	599	145	451	135
Mysuru (7)	113	38	142	35	109	33
Chamarajanagar (4)	93	31	142	35	99	30
Total 8 (54)	1208	404	1885	457	1414	427

Source: Terms of Reference of the study.

2.5.2 Evaluation Methods and techniques

A detailed review of the scope of work as described in the TOR necessitates a mix-design approach for the study objectives, thus the methodology proposed for the study is a best-fit mix of quantitative and qualitative approaches

- The collection and analysis of primary data from beneficiaries of the colony was collected through a semi-structured interview schedule using survey method. The sample of non-beneficiaries from colonies which did not receive any infrastructural facilities were also considered.
- Data from other stakeholders like health department officials at district and taluka as well as District Monitoring Committee, Primary Health Centres (PHCs), health workers, and any prominent NGO in the field collated through available reports/data.
- FGDs were held with the beneficiaries in order to gain qualitative insights into the level of satisfaction, perception, and level of awareness among the beneficiaries, Gram Panchayat and Zilla Panchayat members, and tender agencies will be conducted.
- In-Depth Interviews with the personnel from the Social Welfare Department at the respective districts was conducted. The IDIs was conducted in the same districts and taluks as prescribed in the sample details. The IDIs with the personnel enabled to capture the indicators /responses as mentioned in the evaluation matrix.

2.5.3 Data and Information Sources

2.5.3.1 : Sources of primary data

1. Semi- structured interviews with beneficiaries
2. FGDs with beneficiaries, officials from PWD and SWD
3. In-depth Interview with personnel from SWD
4. Case studies of colonies

2.5.3.2 : Sources of secondary data

1. Available reports and review of literature
2. Secondary data provided by the nodal department and other coordinating departments. For instance, health status report, review reports from the District monitoring committee will be potential sources of secondary data.
3. Census data and relevant reports about the objectives of the study will be collated

2.5.3.3 Questionnaires and Other tools of Data Collection

Questionnaires, Interviews, and focus group discussions were used to collect information from beneficiaries, panchayath members, personnel at PWD and SWD. The questionnaire and other tools were translated to Kannada language to ensure rapport and clarity of communication. The data analysis and the major findings are presented using appropriate statistical techniques like percentage, average, index scores, correlation and regression, cluster analysis and so on.

2.5.4 Data interpretation

The data collection was conducted across the eight districts of the state. Survey data was obtained from 5,111 beneficiaries from the SC/ST colonies

Table 9: Total sample works and number of beneficiaries

Districts	2014-15	2015-16	2016-17	Total sample works	No of Respondents
Belagavi (10)	45	46	50	141	567
Vijayapura (5)	16	17	20	53	218
Raichur (5)	30	25	22	77	365
Kalaburagi (7)	40	47	45	132	530
Tumkur (1)	90	107	92	289	1084
Kolar (5)	114	145	135	394	1495
Mysuru (7)	38	35	33	106	423
Chamarajanagar (4)	31	35	30	96	429
Total 8 (54)	404	457	427	1288	5111

Source: Terms of Reference of the study.

2.6. Analysis

The study has used tabular analysis, measures of central tendency and dispersion, construction of appropriate indices, and functional analysis like correlation, regression, and cluster analysis for analysing the data. The following section provides some explanation about the techniques used in the study.

2.6.1 Construction of Indices

Scaling techniques play a major role in the construction of instruments for collecting standardized and measurable data. Scales and indexes are significant because they provide quantitative measures that are amenable to greater precision, statistical manipulation, and explicit interpretation. An index is an indicator or measure of something. In the present study responses obtained from the beneficiaries are collected using Likert five-point continuum scale. To elicit the required information, simple statements about the infrastructural works were prepared. The respondents were asked to express their opinion by indicating their preference on five-point continuum scale, where score of one denotes strongly disagree and a score of five denotes strongly agree for each statement. The obtained responses were aggregated at taluk level by combining the responses of beneficiaries belonging to different SC/ST colonies within the Taluk. Based on the need, different types of indices are worked out and are presented in detail below.

Construction of Indices for the different infrastructure was undertaken by adopting the following methodology. The responses of the beneficiaries on multiple statements were aggregated by using the following:

$$X_i = \sum_{j=1}^m Y_{ij}$$

Where,

Y_{ij} = score on jth statement by the i^{th} respondent

X_i = sum of score assigned to statements by the i^{th} respondent

$J=1,2,\dots,m$, no of statements considered

$i=1,2,3,\dots,n$, where n =no of sample respondents

Thus, scores obtained from each respondent was transformed to index using the formula

$$\text{Index } I_i = \frac{X_i - \text{Mini } X_i}{\text{Mas } X_i - \text{Mini } X_i}$$

Index lies between zero and one. Based on the Value of Index, indexes can be classified as Low, Moderate and High.

- Low – value of index is $I_i \leq \bar{X} - \frac{1}{2} \sigma$
- Moderate – Value of Index I_i lies between $\bar{X} - \frac{1}{2} \sigma \leq I_i \leq \bar{X} + \frac{1}{2} \sigma$
- High – value of index is $I_i \geq \bar{X} + \frac{1}{2} \sigma$

Frequency of respondents falling in Low, Moderate, and High index category can be obtained using different indicators. Specific Indices were constructed for different infrastructural works, namely, Cement Road, Drainage works, Drinking water and Community halls. The value of index obtained for each individual beneficiary can also be used as variable in carrying out other functional analysis.

2.6.2 Responses categorised into three groups

Since analysis is carried out based on responses obtained on a single statement, for the purpose of convenience and better interpretation of the results, the obtained responses were compressed into three groups. Beneficiaries' who had indicated that they either strongly disagree or disagree are grouped into low response category. The beneficiaries who gave neutral, i.e., neither agree nor disagree with the statement are grouped under moderate response category. Beneficiaries who had indicated that they strongly agree or agree with statement are grouped under high response category. Further the obtained responses are expressed in percentages to know the extent of beneficiaries who expressed low, moderate, and high response towards a particular intervention or infrastructural facility.

2.6.3 Index using Number of beneficiaries as weights

In the method described above we are interested only compressing the scale into appropriate number of groups. On the other hand, whenever it is found necessary to transform the response obtained on five-point continuum scale into single measure, the simplest procedure followed is to derive weighted average using number of respondents in each category as weights. In this case, value of the index lies between one and five on a five-point continuum scale.

$$\text{Index } R_i = \frac{\sum_{j=1}^5 W_{ji} X_j}{\sum_{j=1}^5 W_{ji}}$$

Where value of $i=1,2,3,4\dots 54$ (taluks are considered as basic units)

W_{ji} = Number respondent falling in j^{th} response category for i^{th} unit.

X_j = score assigned to j^{th} response category (response categories are: $X_1=1$, Strongly disagree; $X_2=2$, Disagree; $X_3=3$, Neutral; $X_4=4$ Agree; and $X_5=5$ strongly Agree)

Index values range from one to five, where a score of one indicates poor utility whereas value of five indicates high utility.

2.6.4 Functional Analysis

The correlation coefficients were estimated to examine the linkages between infrastructure facilities and quality of life of the beneficiaries across the colonies. Pearson Correlation coefficient is used to describe the degree of relationship between these two variables. It is denoted by r . The correlation coefficient ' r ' is given as the ratio of covariance of the variables X and Y to the product of the standard deviation of X and Y. Simplified formula is given by:

$$r_{xy} = \frac{N\sum x_i y_i - \sum x_i \sum y_i}{\sqrt{N\sum x_i^2 - (\sum x_i)^2} \sqrt{N\sum y_i^2 - (\sum y_i)^2}}$$

The correlation coefficient value ranges between -1 and $+1$, If $r > 0$ it denotes positive correlation; $r < 0$ it denotes negative correlation between the two variables X and Y; and if $r = 0$ then the two variables X and Y are not linearly correlated, i.e., it means that the two variables are independent. Further, if $r = +1$ then the correlation is perfect positive, and if $r = -1$ then the correlation is perfect negative.

2.6.5 Quantile Regression

Quantile regression is a type of regression analysis commonly used in statistics and econometrics. While the method of least squares estimates the conditional mean of the response variable across values of the predictor variables; on the contrary, quantile regression estimates the conditional median (or other quantiles) of the response variable. Quantile regression is an extension of linear regression used when the conditions of linear regression

are not met. One advantage of quantile regression in contrast to the ordinary least squares regression is that the estimates are more robust against outliers while measuring the responses.

Since infrastructural works undertaken in SC/ST colony vary across districts/taluks and these colonies are highly heterogeneous, thus the mean response captured by the regression analysis may not be appropriate to capture the relationship between infrastructural work and its impact on overall living standard. Therefore, quantile regression is used to capture the relationship.

Quantile regression is of the form:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \epsilon_i$$

Where

Y_i = Overall Living Standard Index of SC/ST colony of ith Taluk

X₁ = utility Indicator in respect of Cement Road

X₂ = utility Indicator in respect of Drainage work

X₃ = utility Indicator in respect of Drinking water

X₄ = utility Indicator in respect of Community hall

X₅ = Indicator in respect of General health

ϵ_i = Random disturbance term

3. Findings of the Study

An evaluation of the implementation of the infrastructural facilities scheme was carried out. The scheme was implemented across the districts of Karnataka from the year 2014-2017. Eight districts and 54 taluks were taken as part of the present evaluation study.

3.1 Socio-economic and gender profile

Table 10 below depicts the socio-economic profile of the beneficiaries. Out of the 5,111 respondents across the 54 taluks, 77.91 per cent of the beneficiaries were male and 22.09 per cent were female beneficiaries. The average age of the sample beneficiaries is 40 and the average annual income is Rs. 15,602.

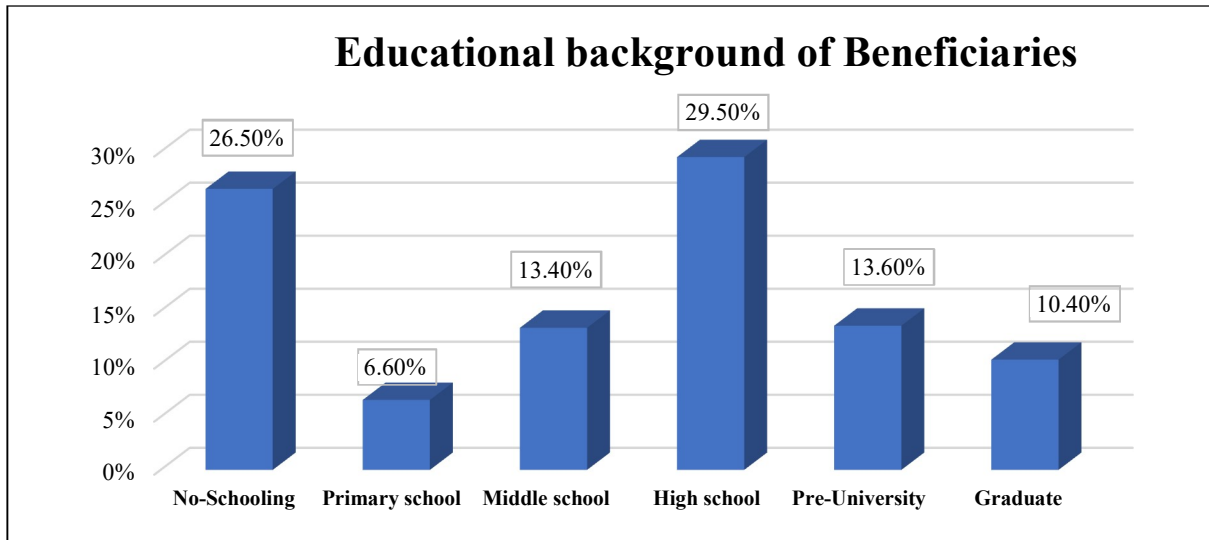
Table 10: Socio-economic and gender profile of the beneficiaries

Socio-economic and gender profile of the respondents/ beneficiaries						
Districts	No	Taluks	Male (percent)	Female (percent)	Average Age (in Years)	Average Annual Income (in Rupees)
BELAGAVI	1	ATHANI	94.6	5.4	35	13865
	2	BAILAHONGALA	94.3	5.7	41	37085
	3	BELAGAVI	61.5	38.5	36	15038
	4	CHIKKODI	91.0	9.0	42	14421
	5	GOKAK	85.7	14.3	45	14705
	6	HUKKERI	94.2	5.8	40	11327
	7	KHANAPURA	87.5	12.5	42	22250
	8	RAIBAG	100.0	0.0	36	11830
	9	RAMADURGA	87.3	12.7	39	12762
	10	SAVADATTI	97.1	2.9	42	11559
TUMKUR	11	CKHALLI	50.0	50.0	51	26000
	12	GUBBI	66.7	33.3	43	11942
	13	KORATAGERE	84.8	15.2	44	13991
	14	KUNIGAL	30.9	69.1	31	10727
	15	MADHUGIRI	77.2	22.8	46	18868
	16	PAVAGADA	65.4	34.6	39	10522
	17	SIRA	76.5	23.5	39	10854
	18	TIPTUR	79.7	20.3	42	11703
	19	TUMKUR	56.8	43.2	37	13155
	20	TURUVEKERE	96.1	3.9	45	11450

Table 10: Socio-economic and gender profile of the beneficiaries (Contd.)

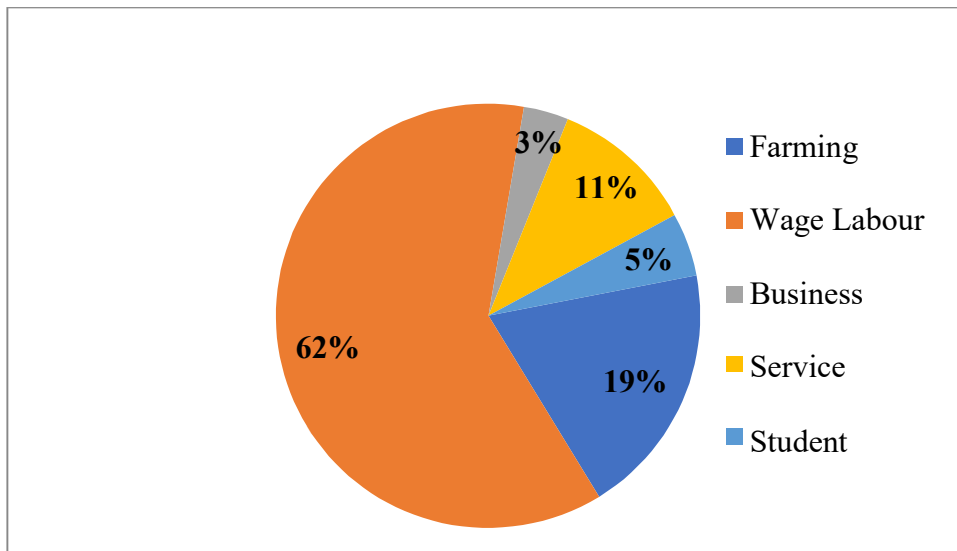
Districts	No	Taluks	Male (percent)	Female (percent)	Average Age (in Years)	Average Annual Income (in Rupees)
KOLAR	21	BANGARPET	63.6	36.4	37	18750
	22	KGF	57.1	42.9	31	14143
	23	KOLAR	49.4	50.6	40	13319
	24	MALUR	58.3	41.7	37	19969
	25	MULABAGILU	45.4	54.6	38	13162
	26	SRINIVASAPURA	46.8	53.2	36	14196
KALBURGI	27	AFZALPUR	81.3	18.8	41	12125
	28	ALANDA	90.2	9.8	40	15073
	29	CHINCHOLI	94.2	5.8	45	16903
	30	CHITTAPURA	93.4	6.6	40	16557
	31	JEWARGI	94.9	5.1	37	13275
	32	KALBURGI	94.0	6.0	38	20424
	33	SEDAM	95.0	5.0	29	11650
MYSORE	34	HD KOTE	80.9	19.1	39	14103
	35	HUNASURU	75.0	25.0	42	12167
	36	K R NAGAR	95.2	4.8	36	14619
	37	MYSORE	73.0	27.0	41	19970
	38	NANJANAGUDU	88.8	11.2	40	12651
	39	PIRIYAPATNA	100.0	0.0	42	15607
	40	T NARASIPURA	81.3	18.8	42	10935
CHAMRAJANAGAR	41	CHAMRAJNAGAR	94.0	6.0	42	12643
	42	GUNDLUPETE	92.4	7.6	45	13847
	43	KOLLEGALA	94.6	5.4	42	10000
	44	YALANDURU	77.1	22.9	39	13971
VIJAYAPUR	45	BAGEVADI	88.7	11.3	42	11942
	46	BIJAPURA	85.7	14.3	46	13536
	47	INDI	93.1	6.9	39	11339
	48	MUDEBIHAL	59.1	40.9	43	17614
	49	SINDAGI	78.4	21.6	40	18351
RAICHUR	50	DEVADURGA	60.9	39.1	39	16000
	51	LINGASUGURU	66.1	33.9	37	17910
	52	MANVI	53.8	46.2	35	22346
	53	RAICHUR	75.2	24.8	38	12917
	54	SINDHANURU	53.1	46.9	36	17281
TOTAL			77.91	22.09	40	15062

Source: Primary data

Graph 1: Educational background of beneficiaries

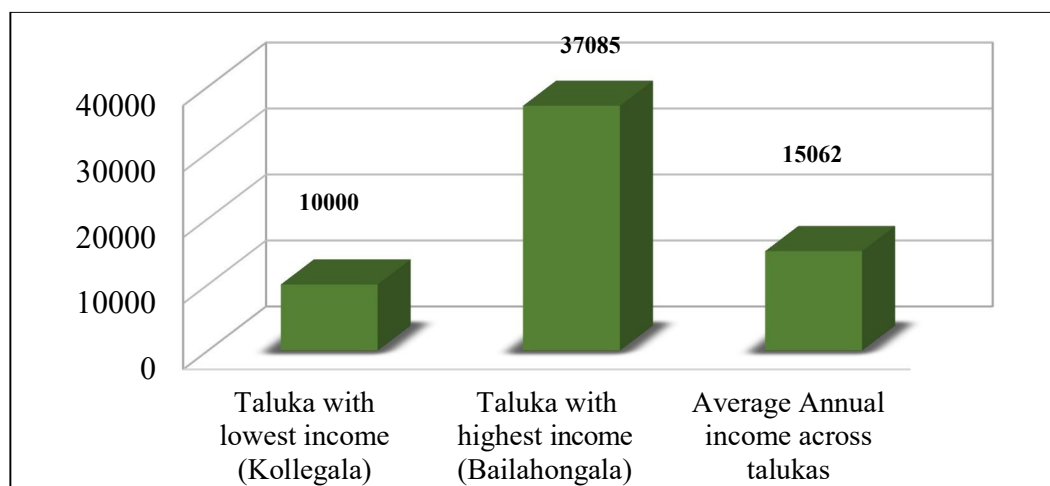
Source: Primary data

The educational profile (graph 1) of the beneficiaries shows that 29.5 per cent have completed high school education, 26.5 per cent had no-schooling, 13.6 per cent of them studied till pre-university, 13.4 per cent of them studied till middle school, 10.4 per cent studied graduation and 6.6 per cent studied their primary school.

Graph 1.1: Occupational profile of the beneficiaries

Source: Primary data

Graph 1.2: Annual income of the beneficiaries



Source: Primary data

Note: Annual income in Rupees

The average annual income of the beneficiaries across the 54 taluks and 8 districts is Rs.15,602. Bailahongala taluka was noted to have the highest annual income with Rs. 37,085 and Kollegala taluka was observed to have lower annual income with Rs. 10,000. The beneficiaries from Bailahongala taluka mostly engaged in occupation related to wage labour (57.1 per cent) and farming (25.7 per cent). Further the beneficiaries from Kollegala taluka engaged themselves in farming (46.5 per cent) and labour (42.5 per cent) occupations. Further, it could be observed from the graph 2.1 that majority of the respondents across the taluks and districts engaged themselves in wage labour (62 per cent) and farming (19 per cent).

3.2 Role of beneficiaries in selection and implementation of works

The participation of the beneficiaries in planning and implementation of infrastructural facilities as per the SCSP/TSP (2014-2017) can be divided in to two aspects: (1) beneficiaries have been consulted for allocation of works, and (2) beneficiaries have actively participated in the implementation of works. The responses obtained by the beneficiaries are presented in table 11.

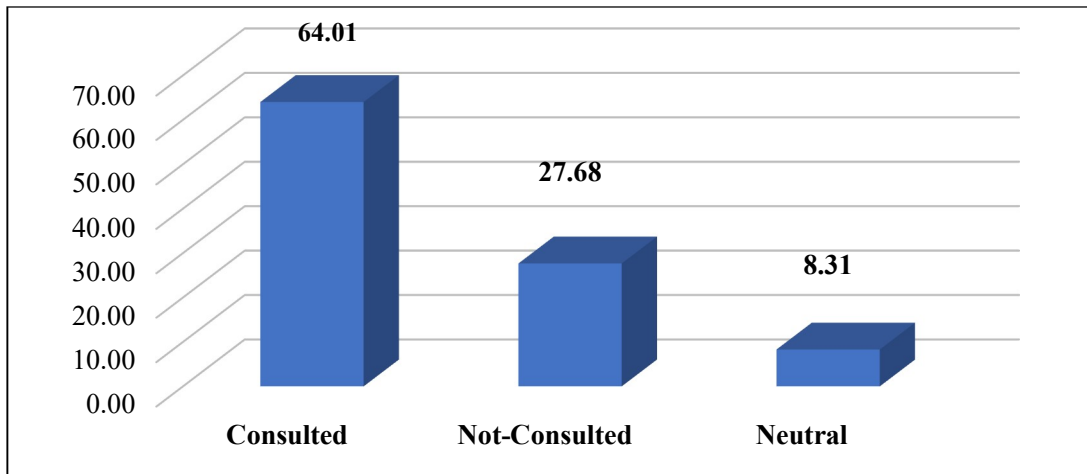
Table 11: Role of Beneficiaries' in selection and implementation of works

Consulted	Not Consulted	Neutral
64 %	27.68 %	8.31 %
Participated	Not Participated	Neutral
54.58 %	29.27 %	16.15 %

Source: Primary data

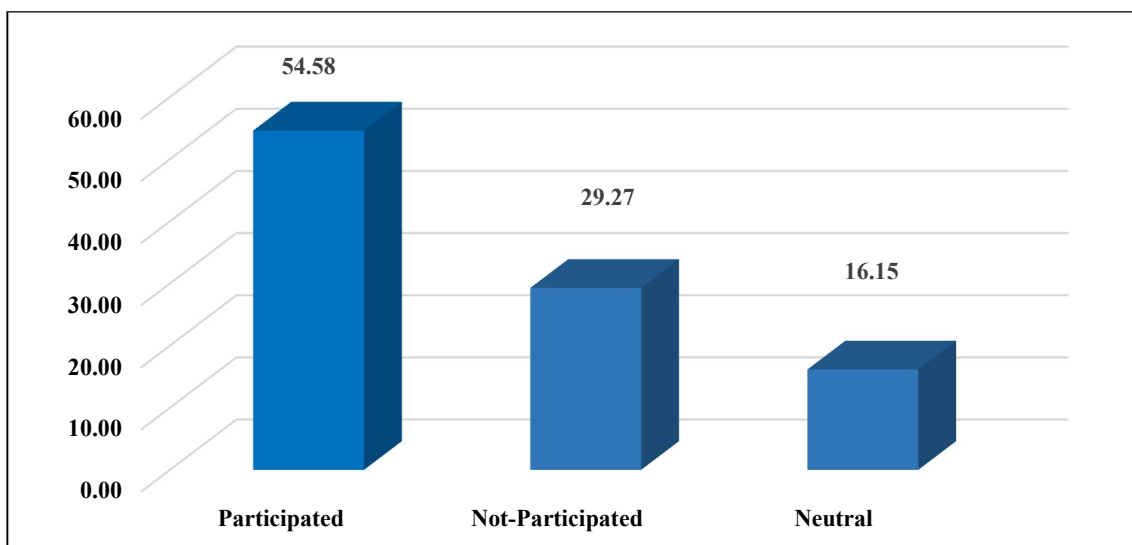
Table 11 depicts the details of the consultation and participation of beneficiaries in the process, planning and implementation of the infrastructural works. From the data obtained, 64 per cent of the beneficiaries opined that they were consulted during the implementation of work and 54.58 per cent of them opined that they participated in the process.

Graph 2: Consultation of beneficiaries



Source: Primary data (Numbers depicted are in percentage)

Graph 2.1: Participation of beneficiaries



Source: Primary data (Numbers depicted are in percentage)

The above graphs (graph no. 2, and 2.1) represent the involvement and participation of beneficiaries in the process, planning and implementation of the infrastructural works. To further substantiate this factor, personnel during their IDIs also opined that the beneficiaries have not approached the officials with any complaints or grievances pertaining to the implementation of works. However, there are reported cases of beneficiaries' dissatisfaction over not being consulted. Such cases are captured through a comparison matrix in table 35.

Further, it was evident during the field visits and FGDs beneficiaries from districts like Kolar, Mysore and Chamarajanagar expressed dissatisfaction over not being consulted while implementing works like cement roads, drinking water and drainage works. In addition, these districts have received lower ranks amongst the eight districts (refer table 28).

3.3 Measuring Utility of Infrastructural Works

For analysis and drawing inferences, the responses obtained from the beneficiaries were index-based. While the Likert scale was used in the structured questionnaire meant for beneficiaries, the ratings were converted into index scores. An index is a measure that adds or combines several distinct indicators of a given construct into a single score. This composite score is often a simple sum of multiple indicators. Index scores are often used to assess content and convergent validity. Indexes are often measured at the interval or ratio level. Thus, index has been constructed by taking the overall responses for all the questions and the index scores are present in subsequent tables.

Further, the index scores for respective works were calculated and district-wise analysis has been presented in the subsequent sections of the report. As mentioned in the methodology section, the taluks were taken as the basic unit of analysis and district-wise data are analysed to get the overall index scores for infrastructural works for each district.

3.3.1 CEMENT ROAD: Utility of Cement Road

Rural roads play an important role in the overall development of rural areas as access to social and economic infrastructure and services are the sine qua non of rural development. Rural roads influence the process of growth through changes in socio-economic attitudes of people reduction of inequalities leading to better quality of life. Improved rural connectivity will lead to marked improvement in the quality of life, better access to educational facilities, improved health services, improved attendance of teachers as well as students etc. Accessibility also leads to improvement in governance and provision of other utility and emergency services.

Overall opinion

In order to capture the overall perception of beneficiaries across the colonies regarding laying of cement roads, data was collected using Likert five- point continuum scale. Twenty-three questions covering various aspects pertaining to cement road covering gamut of issues like extent of satisfaction about the work executed, timely completion of works, extent to which it has improved the mobility and access, its impact on improving access to hospitals and

schools, and so on were asked to the beneficiaries. The scores obtained these twenty-three questions were aggregated and converted into an index. The index score reflects the overall perception of beneficiaries about laying of cement roads.

Based on the value of index, the 54 taluks have been categorised into Low, Moderate and High following the criterion explained in methodology section. The results are summarized in Table-12. About 37 per cent of taluks have expressed high opinion about the work pertaining to cement road. Further, equal number of taluks, viz., 17 taluks fall in the of Low and Moderate response categories, respectively. Together account for 63 per cent of sample taluks.

Table 12: Perception of respondents about construction of Cement Roads in SC/ST colony

No	Classifications of Taluks	No. of Taluks (percentage)	Names of Taluks
1	Low	17 (31.5 %)	Sindagi, Yalandur, K R nagar, Piriapatna, T. Narasipura, Tiptur, Gubbi, Bijapura, Athani, Hunasuru, Belagavi, Turuvekere, Nanjanagudu, Bailhongala, Srinivaspura, Mysore, Bangarpet
2	Moderate	17 (31.5 %)	Gundlupete, Manvi, Hdkote, Devadurga, Lingasuguru, Malur, Sindhanuru, Chittapura, Tumkur, Alanda, Mulabagilu, Pavagada, Madhugiri, Raichur, Chincholi, Koratagere, Afzalpur
3	High	20 (37.0 %)	Chamrajnagar, Sira, Kollegala, Kolar, Khanapura, Chikkodi, Sedam, Raibag, Jewargi, Savadatti, Ukkeri, Ramadurga, Gokak, Kalaburagi, KGF, Indi, Muddebihal, Kunigal, Bagevadi, C K Halli
	Total	54 (100.0 %)	

Source: Primary Data

Improvement in access and mobility

It is hypothesized that the construction of cement roads in the colonies will improve access and mobility among the people of the community, enable easy movement of bullock carts, cycle, two and four wheelers thereby facilitate connectivity of people from colony to subsequent areas. It is also envisaged that laying of cement roads would aid in improved access to hospitals, reduce maternal and infant mortality. In order to elicit the direct impact of cement roads on improved access and mobility, questions like, “How far the laying of cement roads has helped in improved mobility and access among the people of the community” was asked. Similar questions were asked using the five-point continuum scale.

Table 13: Improved Access and mobility due to cement roads

Districts	No.	Taluks	Access and Mobility		
			Low	Moderate	High
BELAGAVI	1	ATHANI	24.3	45.9	29.8
	2	BAILAHONGALA	20.6	50.0	29.4
	3	BELAGAVI	23.1	50.0	26.9
	4	CHIKKODI	33.3	38.6	28.1
	5	GOKAK	28.6	48.2	23.2
	6	HUKKERI	28.8	42.4	28.8
	7	KHANAPURA	43.7	37.5	18.8
	8	RAIBAG	39.3	39.3	21.4
	9	RAMADURGA	28.5	42.9	28.6
	10	SAVADATTI	26.5	41.2	32.3
		District Index		30.6	42.2
TUMKUR	11	CK HALLI	0.0	0.0	100.0
	12	GUBBI	20.4	48.1	31.5
	13	KORATAGERE	22.3	49.1	28.6
	14	KUNIGAL	21.8	41.8	36.4
	15	MADHUGIRI	20.3	50.0	29.7
	16	PAVAGADA	13.2	52.2	34.6
	17	SIRA	13.3	64.8	21.9
	18	TIPTUR	20.3	59.4	20.3
	19	TUMKUR	15.5	18.5	66.0
	20	TURUVEKERE	29.5	34.1	36.4
		District Index		18.7	45.2
KOLAR	21	BANGARPET	18.2	60.6	21.2
	22	KGF	28.6	0.0	71.4
	23	KOLAR	21.1	53.6	25.3
	24	MALUR	20.7	47.2	32.1
	25	MULABAGILU	10.2	58.0	31.8
	26	SRINIVASAPURA	22.1	45.0	32.9
		District Index		16.8	53.7
KALBURGI	27	AFZALPUR	43.8	18.8	37.1
	28	ALANDA	23.1	61.0	15.9
	29	CHINCHOLI	15.4	59.6	25.0
	30	CHITTAPURA	18.0	45.9	36.1
	31	JEWARGI	25.0	38.8	36.2
	32	KALBURGI	16.2	25.3	58.5
	33	SEDAM	20.0	0.0	80.0
		District Index		19.7	37.5

Table 13: Improved Access and mobility due to cement roads (Contd)

Districts	No.	Taluks	Access and Mobility		
			Low	Moderate	High
MYSORE	34	HD KOTE	19.1	51.5	29.4
	35	HUNASURU	25.0	12.5	62.5
	36	K R NAGAR	23.8	61.9	14.3
	37	MYSORE	21.0	62.0	17.0
	38	NANJANAGUDU	20.6	50.7	28.7
	39	PIRIYAPATNA	17.9	57.1	25.0
	40	T NARASIPURA	38.7	0.0	61.3
	District Index			22.1	48.5
CHAMARAJNAGAR	41	CHAMRAJNAGAR	10.7	65.5	23.8
	42	GUNDLUPETE	49.2	22.0	28.8
	43	KOLLEGALA	33.3	38.0	28.7
	44	YALANDURU	0.0	100.0	0.0
	District Index			30.8	44.2
VIJAYAPUR	45	BAGEVADI	13.2	52.8	34.0
	46	BIJAPURA	25.0	57.1	17.9
	47	INDI	42.9	0.0	57.1
	48	MUDDEBIHAL	22.7	0.0	77.3
	49	SINDAGI	16.2	0.0	83.8
	District Index			24.8	20.2
RAICHUR	50	DEVADURGA	21.3	53.2	25.5
	51	LINGASUGURU	14.3	44.6	41.1
	52	MANVI	46.2	17.3	36.5
	53	RAICHUR	16.5	51.2	32.3
	54	SINDHANURU	28.1	37.5	34.4
	District Index			23.1	43.2
Overall Index			21.2	45.7	33.1

Source: Primary Data

Note: Index scores are used to depict the percentage for Road Access and Mobility

The responses were obtained on a five-point continuum scale from the beneficiaries, a score of one for strongly disagree to a score of five to strongly agree. The scores so assigned by individual respondents were aggregated at taluk level. Further five-point continuum scale was reduced into three groups by combining Strongly Disagree and Disagree into low response category; neutral responses (neither agree nor disagree) as moderate category; and responses on agree or strongly agree as high response category. The frequencies of beneficiaries falling in these three categories were obtained and they were expressed in terms of percentage.

Results about the improvement in access and mobility due to construction cement roads across all the eight districts and respective taluks are presented in Table-13. The overall low, moderate, and high access and mobility scores for the eight districts are 21.2, 45.7, and 33.1,

respectively. Amongst the eight districts, 55 per cent of beneficiaries from Vijayapur district have expressed high opinion, which means that laying of cement roads has enhanced access and mobility. It was also evident during the field visits that the beneficiaries across the colonies of the district expressed satisfaction over the laying of cement roads. However, we may note that in six out of eight sample districts, less than one third of sample beneficiaries have expressed strong opinion about the improvement in access and mobility among people of community due to construction cement roads.

Utility of Roads for other purposes

Table 13.1 depicts the utility of road across all the eight districts and respective taluks. The weighted score was constructed by eliciting responses from the beneficiaries.

Table 13.1: Utility of Cement Road for other purposes

District	No	Taluks	Road Utility Score
BELAGAVI	1	ATHANI	4.3
	2	BAILAHONGALA	4.1
	3	BELAGAVI	4.1
	4	CHIKKODI	4.0
	5	GOKAK	4.2
	6	HUKKERI	4.2
	7	KHANAPURA	3.4
	8	RAIBAG	4.2
	9	RAMADURGA	4.2
	10	SAVADATTI	4.3
	District Index		
TUMKUR	11	CKHALLI	5.0
	12	GUBBI	3.8
	13	KORATAGERE	4.1
	14	KUNIGAL	4.8
	15	MADHUGIRI	4.3
	16	PAVAGADA	4.0
	17	SIRA	4.6
	18	TIPTUR	3.8
	19	TUMKUR	4.0
	20	TURUVEKERE	4.0
	District Index		
KOLAR	21	BANGARPET	4.0
	22	KGF	4.6
	23	KOLAR	4.1
	24	MALUR	4.2
	25	MULABAGILU	4.0
	26	SRINIVASAPURA	4.0
	District Index		

Table 13.1: Utility of Cement Road for other purposes (Contd.)

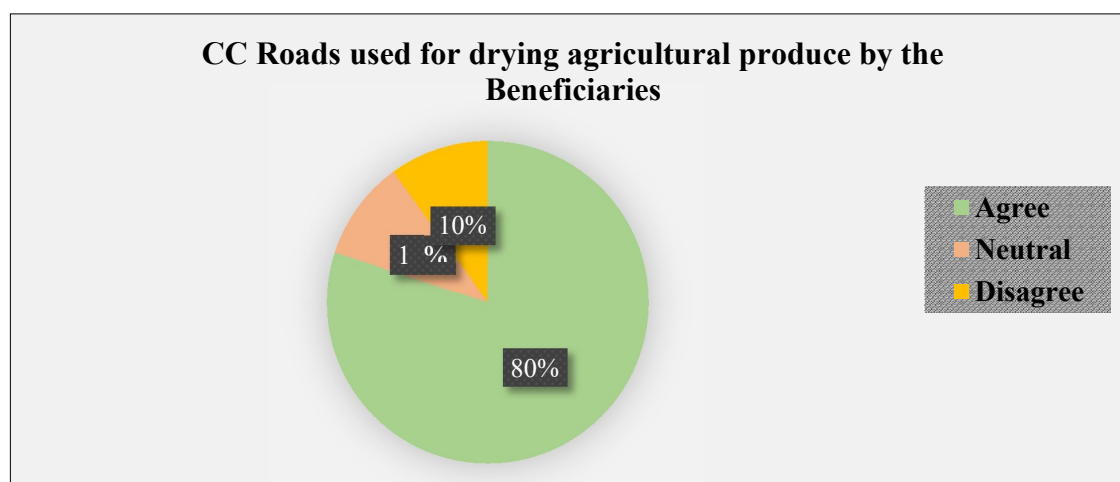
District	No	Taluks	Road Utility Score
KALBURGI	27	AFZALPUR	4.1
	28	ALANDA	4.2
	29	CHINCHOLI	4.1
	30	CHITTAPURA	3.8
	31	JEWARGI	4.2
	32	KALBURGI	4.8
	33	SEDAM	4.2
	District Index		
MYSORE	34	HD KOTE	4.1
	35	HUNASURU	3.9
	36	K R NAGAR	3.9
	37	MYSORE	4.0
	38	NANJANAGUDU	3.9
	39	PIRIYAPATNA	3.8
	40	T NARASIPURA	3.7
	District Index		
CHAMRAJANAGAR	41	CHAMRAJANAGAR	4.1
	42	GUNDLUPETE	3.5
	43	KOLLEGALA	4.2
	44	YALANDURU	3.4
	District Index		
VIJAYAPUR	45	BAGEVADI	5.0
	46	BIJAPURA	3.8
	47	INDI	4.5
	48	MUDDEBIHAL	4.8
	49	SINDAGI	3.0
	District Index		
RAICHUR	50	DEVADURGA	4.1
	51	LINGASUGURU	4.2
	52	MANVI	4.1
	53	RAICHUR	4.1
	54	SINDHANURU	4.3
	District Index		
Overall Road Utility Index			4.1

Source: Primary Data

Note: Score expressed as weighted average

The overall road utility index score is 4.1. Amongst the eight districts, Belagavi, Tumkur, Kolar, Kalaburgi, Vijayapur, and Raichur have obtained above-average road utility scores; while districts like Mysore, Chamarajanagar have obtained road utility score of 3.9 and 3.8 respectively which is below the overall road utility score.

Graph 3: Utility of cement roads for drying agricultural produce



Further, the feedback obtained during the survey was also encouraging as many of the respondents expressed the view that cement roads are more hygienic compared to kutchra roads used for post-harvest operations. We may note that the average score is around four implying that most respondents agree that cement roads are being put use even to carry out certain agricultural operations. It is also evident from graph 3, that 80 per cent of the beneficiaries agree that they use CC roads for drying agricultural produce; 10 per cent of them gave neutral responses and 10 percent of the beneficiaries disagreed.

Table 14: Beneficiaries opinion on use of cement roads for drying agricultural produce

District	Disagree	Neutral	Agree
BELAGAVI	11.90	6.93	81.17
CHAMARAJNAGAR	7.92	31.40	60.69
KALBURGI	6.83	6.64	86.53
KOLAR	12.00	3.17	84.83
MYSORE	10.14	8.73	81.13
RAICHUR	7.17	12.70	80.13
TUMKUR	10.64	4.07	85.29
VIJAYAPURA	2.30	25.35	72.35

Source: Primary data

Numbers depicted are in percentages

In addition to the general utility, statements like whether the road is being used for other purposes such as drying and post-harvest operations of crops (which is common practice in rural areas) were asked (refer graph 3). About 80 percent of the beneficiaries across the eight taluks have opined that the cement roads have been used to dry out the agricultural produce. It could be observed from the table 14, that about 80 per cent of the beneficiaries from Belagavi, Kalburgi, Kolar, Mysore, Raichur and Tumkur districts have agreed that the cement roads in their respective colonies are used to dry their agricultural produce.

Improved Access to Medical care and Schools

Having noticed that nearly 75 per cent of respondents at aggregate level have moderate to the high opinion that cement roads have improved access and mobility and an overall score of 4.1 on utility score reflects the use of cement roads for other purposes. Further, the research was also interested to know the direct benefit accrued to the community due to construction cement roads. For this purpose, respondents were asked to express their opinion on how far cement roads have helped in reducing maternal and infant deaths due to improved access to medical care. The responses were obtained on five-point continuum scale. The responses were converted to index using the procedure described in the methodology section. Based on the magnitude of index score, they were categorized as low, moderate, and high categories using Mean +/- Half standard deviation criterion. Results are tabulated in Table -14.1.

Table 14.1 summarises the overall benefits of cement roads, the score reflects that a moderate score of 44.1 per cent. Belagavi and Vijayapur districts have highest scores for benefits of laying cement roads, the scores being 48.6 and 65.6, respectively. Thus, with the obtained scores for the infrastructure of cement roads it could be observed that the intended outcome of enhancing access, transportation is achieved. Overall satisfaction and mobility across the colonies has received average satisfactory responses from the beneficiaries.

Table 14.1: Benefits of laying cement roads

Districts	No	Taluks	Benefits of Laying Cement Roads		
			Low	Moderate	High
BELAGAVI	1	ATHANI	27.1	35.1	37.8
	2	BAILAHONGALA	28.6	42.9	28.5
	3	BELAGAVI	23.1	53.8	23.1
	4	CHIKKODI	32.8	12.7	54.5
	5	GOKAK	28.5	16.1	55.4
	6	HUKKERI	28.8	13.5	57.7
	7	KHANAPURA	31.2	18.8	50.0
	8	RAIBAG	31.6	19.3	49.1
	9	RAMADURGA	29.0	12.9	58.1
	10	SAVADATTI	32.4	44.1	23.5
			District Average	30.3	21.1
TUMKUR	11	CKHALLI	0.0	0.0	100.0
	12	GUBBI	22.2	50.0	27.8
	13	KORATAGERE	17.0	67.9	15.1
	14	KUNIGAL	23.6	45.5	30.9
	15	MADHUGIRI	18.3	69.3	12.4
	16	PAVAGADA	25.0	49.3	25.7
	17	SIRA	28.1	36.7	35.2

Table 14.1: Benefits of laying cement roads (Cont....)

Districts	No	Taluks	Benefits of Laying Cement Roads		
			Low	Moderate	High
TUMKUR	18	TIPTUR	37.4	18.8	43.8
	19	TUMKUR	10.3	47.2	42.5
	20	TURUVEKERE	20.9	38.0	41.1
	District Average		19.7	48.7	31.6
KOLAR	21	BANGARPET	12.3	72.0	15.7
	22	KGF	14.3	14.3	71.4
	23	KOLAR	38.3	56.0	5.7
	24	MALUR	22.8	46.1	31.1
	25	MULABAGILU	27.4	48.4	24.2
	26	SRINIVASAPURA	20.2	53.2	26.6
	District Average		25.9	53.8	20.3
KALBURGI	27	AFZALPUR	50.0	6.2	43.8
	28	ALANDA	0.0	97.3	2.7
	29	CHINCHOLI	30.8	21.1	48.1
	30	CHITTAPURA	19.7	41.0	39.3
	31	JEWARGI	30.0	46.2	23.8
	32	KALBURGI	20.3	13.8	65.9
	33	SEDAM	10.0	0.0	90.0
	District Average		20.4	33.8	45.8
MYSORE	34	HD KOTE	14.7	60.3	25.0
	35	HUNASURU	29.2	4.2	66.6
	36	K R NAGAR	23.8	19.1	57.1
	37	MYSORE	8.0	88.0	4.0
	38	NANJANAGUDU	25.0	48.7	26.3
	39	PIRIYAPATNA	32.1	42.9	25.0
	40	T NARASIPURA	74.2	0.0	25.8
	District Average		23.6	51.9	24.5
CHAMRAJNAGAR	41	CHAMRAJNAGAR	9.5	50.0	40.5
	42	GUNDLUPETE	22.0	65.9	12.1
	43	KOLLEGALA	33.3	10.9	55.8
	44	YALANDURU	0.0	100.0	0.0
	District Average		21.1	46.8	32.1
VIJAYAPUR	45	BAGEVADI	13.2	26.4	60.4
	46	BIJAPURA	3.6	71.4	25.0
	47	INDI	42.9	0.0	57.1
	48	MUDEBIHAL	11.4	0.0	88.6
	49	SINDAGI	10.8	0.0	89.2
	District Average		18.8	15.6	65.6
RAICHUR	50	DEVADURGA	21.7	56.6	21.7
	51	LINGASUGURU	21.5	33.9	44.6
	52	MANVI	26.9	42.3	30.8
	53	RAICHUR	30.6	30.6	38.8
	54	SINDHANURU	25.0	50.0	25.0
	District Average		26.4	39.1	34.5
Overall Average			23.5	44.1	32.4

Source: Primary Data

Cement Roads: Overall observation

Out of 54 taluks only beneficiaries from 20 taluks have strongly expressed their opinion about the benefits of laying cement roads. While beneficiaries in 17 taluks have expressed low opinion about its overall impact on community and beneficiaries from the remaining 17 taluks have expressed mixed opinion. When more specific question was asked regarding whether cement roads have helped them to improve their access and mobility, we may note that in six out of eight sample districts (less than one third of the respondents) have expressed strong opinion about the improvement in access and mobility due to construction cement roads. Even in respect of its impact on improving medical care and providing better access to school for community children, cement roads have received average satisfactory responses from the beneficiaries. However, use of cement roads for other purposes especially for post-harvest operation, there appears to be over whelming response, especially across districts of Belagavi, Kalburgi, Kolar, Mysore, Raichur and Tumkur.

Based on the above observations it may be inferred that laying of cement roads though has gained acceptance of the community, there is scope for improvement in laying the cement road on more scientific grounds making it more community friendly.

3.3.2 DRINKING WATER

National Sample Survey (NSS) under the Ministry of Statistics and Programme Implementation, GOI, surveyed drinking water, sanitation, hygiene, and housing condition as part of 76th round of NSS. It was observed that only 58.2 per cent of households in rural areas had drinking water facilities within household premises during July-December 2018. Further, the survey reported that 87.6 per cent of the households in the rural areas had sufficient drinking water throughout the year from the principal source. In the present study attempt has been made to elicit information with respect to drinking water facility created in SC/ST colonies across the state of Karnataka.

Overall opinion

In order to capture the overall perception of beneficiaries of SC/ST colony with respect to drinking water facility, data was collected using Likert five-point continuum scale. Information was collected by seeking response on twelve statements covering various aspects pertaining to drinking water facility like, drinking water connectivity in the colony and as well at household level; continuity / frequency of water supply; quality of water and health related issues; and cleanliness of water storage structures. Besides, attempt was also made to

elicit opinion on timely completion of work related to drinking water facility. The scores obtained on each of the twelve questions were aggregated and converted into an index reflecting the overall perception of respondents about drinking water facility. Thus, while undertaking this exercise major focus was to understand the community response regarding access, quality of drinking water, attention towards hygiene and frequency of water supply. The data has been analyzed keeping taluka as unit of reference. Based on the value of index, taluks have been categorized into Low, Moderate and High following the criterion explained in methodology section. The results are summarized in Table-15.

About 20 per cent of taluks have expressed high opinion about the drinking water facility provided in the colony. In majority of taluks, i.e., in about 63 per cent of taluks beneficiaries have expressed mixed opinion about the water supply facility. While in nine taluks accounting for 16.7 per cent of taluks, beneficiaries have expressed poor opinion about the drinking water facilities provided in the colonies.

Table 15: Perception of beneficiaries about Drinking water facility in SC/ST colony

NO	Classifications of Taluks	No. of Taluks (Percentage)	Names of Taluks
1	Low	9 (16.7 %)	Sindagi, Yalandur, Bijapura, K R nagar, Piriapatna, Khanapura, Srinivaspura, Lingasuguru, Manvi
2	Moderate	34 (63.0 %)	Koratagere, Chittapura, Mysore, Savadatti, Raichur, H D Kote, Afzalpur, Turuvekere, Kollegala, Alanda, Malur, Raibag, Bangarpet, Hukkeri, Gundlupete, Sindhanuru, Sedam, Madhugiri, Gokak, Chikkodi, Chamrajnagar, T Narasipura, Devadurga, Mulabagilu, Nanjanagudu, Athani, Chincholi, Kolar, Tumkur, Jewargi, Pavagada, Gubbi, Bailhongala, Tiptur
3	High	11 (20.3%)	Ramadurga, Belagavi, Hunasuru, Sira, Indi, KGF, Kalaburagi, Muddebihal, Kunigal, C K Halli, Bagevadi
	Total	54 (100.0 %)	

Source: Primary Data

Access, Quality, Hygiene and Continuity of water supply

In order to examine the extent of access to drinking water acquired by the community, respondents were asked to provide their response on five-point continuum scale regarding water connectivity, hygiene, access and continuity of drinking water. The responses obtained were translated into an index. The value of index ranges from zero to one; zero value indicate poor satisfaction while value of one indicates high satisfaction level. Beneficiaries have expressed moderate satisfaction over the access to drinking water with an index score of 0.77.

One can observe considerable variation across taluks even in respect of access to drinking water. Yalanduru and Bijapur taluks (table 16) have low score of 0.25 and 0.23 respectively expressing least satisfaction. Beneficiaries from Sedum and Muddebihal have expressed hundred per cent satisfaction regarding the access to drinking water in the colony.

When we analyze the data at district level, districts like Tumkur and Kalaburgi have expressed greater satisfaction over access to drinking water with 0.83 and 0.83 index scores, respectively. However, the index scores for water quality and hygiene of water are 0.58 and 0.56 respectively, which is below moderate levels. Again, Bijapur taluka has registered least scores on water supply and quality (especially the hygiene of water). There appears to be wide intra-district variations, and these two indicators need more attention. Specifically, the beneficiaries have expressed major concern about the maintenance of cleanliness of water tanks during the field visits.

The frequency of water supply is other major concern that needs attention. Though the overall score in respect of this indicator is 0.71, which is fairly encouraging. However, there appears to be wide variation across taluks. Even with respect to this parameter, Yaladuru and Bijapur have registered the least scores. It was observed during the FGDs that the beneficiaries' considered it helpful to supply drinking water on a day-to-day basis, rather than twice or thrice a week. The indicator of the continuous water supply has also obtained an average index score of 0.71 and most of the taluks have expressed average satisfaction over water supply measures. It may be noted here, as per the NSS 76th survey 87.6 per cent of the households in the rural areas had sufficient drinking water throughout the year from the principal source, hence one may tend to conclude that ensuring regular water supply is more fret with administrative bottlenecks rather than access to water sources.

The index value for water quality and hygiene is less for almost for all taluks compared to index value for the access and frequency of water supply. Even at the aggregate level the index value for water quality and hygiene is of the order of 0.58 and 0.56 respectively, which is considerably less when compared to index value of other two indicators. Thus, quality of water supplied, and steps taken to maintain hygienic conditions are major issues that need attention of administrators and service providers.

Overall Observation- Drinking water

It may be inferred from the analysis that concerted efforts have been made to extend drinking water facility to SC/ST colonies, this is evident from the fact that access to drinking water has

registered considerably high index value of 0.77. Moreover nearly 83 per cent of respondents have indicated high and mixed response regarding drinking water facility. One could observe low index score with respect to quality of water supplied and the maintenance of storage structure (especially the need to maintain cleanliness and hygiene standards).

Table 16: Responses of the beneficiaries towards drinking water facility

Districts	No	Taluks	Water access	Water quality	Water-Hygienic	Water-continuous supply
BELAGAVI	1	ATHANI	0.79	0.67	0.67	0.74
	2	BAILAHONGALA	0.87	0.65	0.72	0.79
	3	BELAGAVI	0.91	0.68	0.70	0.78
	4	CHIKKODI	0.78	0.63	0.57	0.69
	5	GOKAK	0.78	0.63	0.56	0.69
	6	HUKKERI	0.76	0.63	0.56	0.69
	7	KHANAPURA	0.63	0.53	0.58	0.55
	8	RAIBAG	0.75	0.63	0.58	0.68
	9	RAMADURGA	0.83	0.69	0.59	0.73
	10	SAVADATTI	0.71	0.57	0.57	0.65
			District Average	0.78	0.63	0.61
TUMKUR	11	CKHALLI	1.00	----	----	----
	12	GUBBI	0.76	0.54	0.50	0.74
	13	KORATAGERE	0.74	0.60	0.55	0.69
	14	KUNIGAL	0.77	0.58	0.54	0.75
	15	MADHUGIRI	0.78	0.61	0.60	0.70
	16	PAVAGADA	0.74	0.59	0.55	0.70
	17	SIRA	0.83	0.65	0.65	0.75
	18	TIPTUR	0.75	0.52	0.60	0.60
	19	TUMKUR	0.98	0.54	0.54	0.95
	20	TURUVEKERE	0.94	0.65	0.55	0.83
			District Average	0.83	0.59	0.56
KOLAR	21	BANGARPET	0.70	0.55	0.49	0.68
	22	KGF	0.71	0.64	0.61	0.71
	23	KOLAR	0.76	0.60	0.58	0.70
	24	MALUR	0.88	0.66	0.70	0.78
	25	MULABAGILU	0.77	0.62	0.55	0.71
	26	SRINIVASAPURA	0.79	0.60	0.57	0.74
			District Average	0.77	0.61	0.58
KALBURGI	27	AFZALPUR	0.85	0.57	0.52	0.85
	28	ALANDA	0.66	0.55	0.50	0.62
	29	CHINCHOLI	0.72	0.65	0.59	0.65
	30	CHITTAPURA	0.83	0.63	0.67	0.73
	31	JEWARGI	0.78	0.64	0.58	0.70
	32	KALBURGI	0.94	0.57	0.56	0.91
	33	SEDAM	1.00	0.54	0.54	0.99
			District Average	0.83	0.59	0.57

Table 16: Responses of the beneficiaries towards drinking water facility (Contd.)

Districts	No	Taluks	Water access	Water quality	Water-Hygienic	Water-continuous supply
MYSORE	34	HD KOTE	0.74	0.56	0.51	0.71
	35	HUNASURU	0.88	0.48	0.47	0.87
	36	K R NAGAR	0.65	0.60	0.54	0.63
	37	MYSORE	0.73	0.58	0.53	0.70
	38	NANJANAGUDU	0.87	0.65	0.69	0.75
	39	PIRIYAPATNA	0.75	0.51	0.58	0.44
	40	T NARASIPURA	0.68	0.40	0.56	0.51
District Average			0.76	0.54	0.55	0.66
CHAMRAJANAGAR	41	CHAMRAJANAGAR	0.74	0.57	0.50	0.68
	42	GUNDLUPETE	0.85	0.72	0.56	0.71
	43	KOLLEGALA	0.74	0.62	0.56	0.68
	44	YALANDURU	0.25	0.38	0.38	0.38
	District Average			0.65	0.57	0.50
VIJAYAPUR	45	BAGEVADI	0.68	0.59	0.56	0.65
	46	BIJAPURA	0.23	0.35	0.35	0.35
	47	INDI	0.83	0.50	0.50	0.84
	48	MUDEBEHAL	1.00	0.54	0.54	0.99
	49	SINDAGI	0.96	0.52	0.54	0.93
District Average			0.74	0.50	0.50	0.75
RAICHUR	50	DEVADURGA	0.68	0.55	0.50	0.67
	51	LINGASUGURU	0.74	0.55	0.50	0.73
	52	MANVI	0.78	0.62	0.62	0.74
	53	RAICHUR	0.78	0.58	0.61	0.62
	54	SINDHANURU	0.74	0.60	0.53	0.67
District Average			0.74	0.58	0.55	0.69
Overall Average			0.77	0.58	0.56	0.71

Source: Primary data

Note: value of index ranges from zero to one

3.3.3 DRAINAGE FACILITY

Sanitation is a basic requirement of decent and hygienic living. Good health is closely correlated to water supply and sanitation. High rates of incidence of death and diseases in rural areas are attributed to lack of sanitation facilities. Improper sanitation and sewage disposal causes pollution of water and contamination of drinking water supply resulting in the spread of deadly diseases. Inadequacy of sewage and drainage results in the stagnation of wastewater in residential colonies providing breeding grounds to mosquitoes and insects. The present study aimed at examining to what extent the drainage works undertaken in SC/ST colonies has helped in providing good environment for better living.

Overall opinion

Overall perception of beneficiaries regarding drainage works was collected using Likert five-point continuum scale. Information was collected by seeking response on thirteen statements covering various aspects pertaining to drainage facility. Opinions of beneficiaries on issues like whether the drainage works undertaken in colonies have been completed on time; whether the works have been executed with prescribed requirements; whether every house in the colony has a drainage connection with good disposal mechanism; how far the quality and execution of drainage works has helped smooth disposal of wastewater without stagnation or causing blockages; and whether the maintenance of the drainage facilities has been ensured or not; and more importantly whether community people were consulted prior to execution works.

The scores obtained on each of the thirteen questions were aggregated and converted into an index reflecting the overall perception of beneficiaries about drainage facility in their respective colony. The data has been analyzed keeping taluka as unit of reference. Based on the value of index, taluks have been categorized into Low, Moderate and High following the criterion explained in methodology section. The results are summarized in Table-17.

About 33 per cent of taluks have expressed high opinion about the drainage water facility provided in their colonies. While about 20 taluks accounting for 37 per cent of taluks have expressed poor opinion about the drainage facilities. Whereas in 16 taluks accounting for about 29.7 per cent have expressed mixed opinion about the drainage facilities.

Table 17: Perception of beneficiaries about Drainage facility

NO	Classifications of Taluks	No. of Taluks (Percentage)	Names of Taluks
1	Low	20 (37.0 %)	Sindagi, Yalandur, Belagavi, Hunasuru, Tiptur, Nanjanagudu, Gubbi, Bailhongala, T Narasipurs, Devadurga, Bangarpet, Turuvekere, Athani, Piriapatna, K R Nagar, Manvi, Lingasuguru, Malur, Hd Kote, Srinivaspura
2	Moderate	16 (29.7 %)	Alanda, Mysore, Sira, Madhugiri, Sindhanuru, Tumkur, Mulabagilu, Kalaburagi, Bagevadi, Muddebihal, Bijapura, Pavagada, Chincholi, Gundlupete, Kunigal, Koratagere
3	High	18 (33.3%)	Chittapura, C K halli, Indi, Raichur, Afzalpur, Khanapura, Kollegala, Chamrajnagar, Chikkodi, Kolar, Raibag, Ramadurga, Savadatti, Jewargi, Hukkeri, Gokak, Sedam, KGF
	Total	54 (100.0 %)	

Source: Primary Data

Quality of Drainage work, Completion on time and cleaner Drainage

The present study made specific attempt to elicit information on crucial indicators like work being completed on time, quality, and maintenance of cleaner drains. Responses obtained from the beneficiaries are furnished Table-18. Results indicate that the beneficiaries have expressed a fairly good opinion regarding the completion of drainage works on time and the weighted average score for the same is 4.12 measured on five-point continuum scale. With respect to quality of drainage work and cleaning of drainage, measured index value lies between zero and one, the average scores are 0.47 and 0.48 respectively. These scores reflect lower level of satisfaction. Across the taluks, there are few taluks like Gokak, Hukkeri, Savadutti, Jewargi where the beneficiaries have expressed average satisfaction over the quality of drainage work. However, the need to maintain cleaner drains has been a constant need which has been not resolved by the authorities across colonies of the taluks.

Table 18: Responses of the beneficiaries with respect to the drainage facilities

Districts	No	Taluks	Quality of drainage works	Cleaner drainage	Work completed on time
BELAGAVI	1	ATHANI	0.47	0.53	3.73
	2	BAILAHONGALA	0.45	0.48	3.74
	3	BELAGAVI	0.40	0.41	3.88
	4	CHIKKODI	0.73	0.71	4.03
	5	GOKAK	0.76	0.74	4.03
	6	HUKKERI	0.76	0.74	4.00
	7	KHANAPURA	0.75	0.68	4.18
	8	RAIBAG	0.75	0.73	4.00
	9	RAMADURGA	0.75	0.73	4.03
	10	SAVADATTI	0.76	0.71	4.14
		District Average	0.66	0.65	4.00
TUMKUR	11	GUBBI	0.31	0.37	4.07
	12	KORATAGERE	0.43	0.46	4.02
	13	KUNIGAL	0.32	0.39	4.09
	14	MADHUGIRI	0.40	0.45	4.00
	15	PAVAGADA	0.59	0.58	4.16
	16	SIRA	0.57	0.57	3.94
	17	TIPTUR	0.58	0.49	4.15
	18	TUMKUR	0.06	0.10	4.80
	19	TURUVEKERE	0.31	0.33	4.74
		District Average	0.40	0.42	4.30
KOLAR	20	BANGARPET	0.36	0.40	4.00
	21	KGF	0.59	0.61	4.14
	22	KOLAR	0.41	0.44	3.91
	23	MALUR	0.47	0.48	3.90
	24	MULABAGILU	0.65	0.64	4.10
	25	SRINIVASAPURA	0.40	0.43	4.04
		District Average	0.48	0.50	4.00

Table 18: Responses of the beneficiaries with respect to the drainage facilities (Contd.)

Districts	No	Taluks	Quality of drainage works	Cleaner drainage	Work completed on time
KALBURGI	26	AFZALPUR	0.26	0.29	4.62
	27	ALANDA	0.48	0.47	3.80
	28	CHINCHOLI	0.63	0.67	3.99
	29	CHITTAPURA	0.51	0.51	3.91
	30	JEWARGI	0.78	0.71	4.16
	31	KALBURGI	0.21	0.23	4.77
	32	SEDAM	0.00	0.05	5.00
	District Average			0.41	0.42
MYSORE	33	HD KOTE	0.37	0.41	4.19
	34	HUNASURU	0.17	0.24	4.54
	35	K R NAGAR	0.46	0.49	3.95
	36	MYSORE	0.40	0.44	3.82
	37	NANJANAGUDU	0.44	0.47	3.86
	38	PIRIYAPATNA	0.50	0.59	4.03
	39	T NARASIPURA	0.57	0.47	3.87
	District Average			0.42	0.44
CHAMRAJA NAGAR	40	CHAMRAJNAGAR	0.53	0.54	4.14
	41	GUNDLUPETE	0.70	0.61	4.47
	42	KOLLEGALA	0.74	0.71	4.08
	43	YALANDURU	0.38	0.33	3.00
	District Average			0.59	0.55
VIJAYAPUR	44	BAGEVADI	0.72	0.66	3.98
	45	BIJAPURA	0.35	0.31	3.00
	46	INDI	0.09	0.11	4.53
	47	MUDDEBIHAL	0.00	0.05	5.00
	48	SINDAGI	0.06	0.09	4.86
	District Average			0.24	0.25
RAICHUR	49	DEVADURGA	0.44	0.44	3.93
	50	LINGASUGURU	0.28	0.34	4.46
	51	MANVI	0.57	0.59	4.59
	52	RAICHUR	0.57	0.56	3.98
	53	SINDHANURU	0.77	0.73	4.15
	District Average			0.45	0.46
Overall Average			0.47	0.48	4.12

Source: Primary data

Note: Index scores are used for responses of the beneficiaries

Impact of Drainage works on health -related issues

In order to examine to what extent, the implementation of infrastructural facilities in the colonies has improved the living environment and wellbeing of the beneficiaries, responses concerning health-related issues were obtained. The responses obtained are presented in Table 19. Three indicators are chosen to capture the impact, namely, beneficiary' response

towards what extent drainage works has helped in reducing morbidity, infant mortality and whether the drainage works have helped in providing better ambience to community.

Index was constructed using weighted average procedure described in the methodology. Index value obtained for all three indicators across the districts indicates that the respondents are leaning towards agreement that drainage works have facilitated to reduce morbidity, infant mortality and as well it has provided better ambience in community, there appear to be no consensus about the same. This is obvious from the fact that the index values cluster around median value of three on a five-point continuum scale. Further, there has been a mixed response regarding the impact of drainage works on reduced dirty smell, flies and mosquitoes, and overall pollution in the colonies.

Table 19: Impact of Drainage works on health-related issues

No	Districts	Beneficiary's' perception about		
		Impact on reducing Morbidity	Impact on Reducing on Infant Mortality	Impact on improving Ambiance in the colony
1	BELAGAVI	3.05	2.90	2.94
2	CHAMARAJNAGAR	2.97	2.80	3.09
3	KALBURGI	3.38	3.31	3.67
4	KOLAR	3.24	3.18	3.15
5	MYSORE	3.32	3.35	3.18
6	RAICHUR	3.39	3.36	3.30
7	TUMKUR	3.41	3.33	3.54
8	VIJAYPURA	3.32	3.25	4.06
All District Average		3.27	3.20	3.31

Note: Range value of Index: $1 < AI < 5$
(Weighted score based on perception of beneficiaries)

Overall observations on Drainage facility

It is observed that nearly in two-third taluks of the 54 total taluks, have expressed either low or mixed response towards the drainage facility. Though the works have been carried out on time, it is needless to mention that more attention needs to be paid for scientific planning and maintenance of drainage so to ensure prevention of stagnation of wastewater thereby provide better ambience for the colony.

3.4 Overall Living Standards vis-à-vis Infrastructure Works

One of the objectives of the infrastructural development scheme was to achieve the intended outcome of enhancing the standard of living for the beneficiaries across the SC/ST colonies in the state. The following section attempts to examine the relationship between the infrastructural works and the overall living of the beneficiaries. In this regard, opinions of the beneficiaries across the colonies were collected to determine whether the infrastructural works undertaken brought any improvement in their standard of living.

Table 20 depicts the beneficiaries' perceptions and opinions regarding an improved standard of living due to infrastructural works. It could be observed that about 64.2 per cent of the beneficiaries have agreed that the implementation of the infrastructural works across the colonies has aided in their enhanced standard of living. While 24.1 per cent of the beneficiaries expressed neutral response and 11.7 per cent of them disagree that infrastructural work had enhanced the standard of living. Amongst the eight districts, Kalburgi and Vijayapur have expressed highest scores of 81.9 and 71.6 respectively, which denote that the beneficiaries in the colonies have expressed higher acceptance that their standard of living was enhanced due to the implementation of infrastructural works.

Table 20: General perception of the beneficiaries about the overall improvement in the living standards

No	DISTRICTS	Improved Standard of Living		
		Disagree	Neutral	Agree
1	BELAGAVI	12.4	21.6	66.0
2	TUMKUR	11.8	24.8	63.4
3	KOLAR	11.4	25.0	63.6
4	KALBURGI	7.9	10.2	81.9
5	MYSURU	15.1	37.0	47.9
6	CHAMARAJNAGAR	16.8	24.8	58.4
7	VIJAYAPURA	3.7	24.7	71.6
8	RAICHUR	13.0	25.3	61.7
	Overall Average	11.7	24.1	64.2

Source: Primary data

In order to capture this relationship between the overall living standard index of SC/ST colonies, and the extent of the utility of the infrastructural works as perceived by the beneficiaries the correlation coefficient was worked out. The correlation coefficients reveal evidence on linkages between infrastructure and quality of life. The results of the correlation are presented in table 21.

Table 21: Correlation between Overall living standard Index and infrastructural works undertaken across the colonies

No	Utility Indicators	Correlation with Overall Living standard Index
1	Cement Road	0.95*
2	Drainage Works	0.77*
3	Drinking water	0.73*
4	Community Hall	0.78*
5	General health	0.58*
6	General perception of respondents	0.76*

Source: Primary data

Note: * indicates significance at 5 percent level

Correlation analysis reveals that there has been a high positive significant correlation between the overall living standard index and all the utility indicators developed for the various developmental works. It means, development works have made a positive impact in creating a congenial environment for better living. For instance, 83 per cent of beneficiaries in the study have expressed high and mixed opinion regarding the drinking water facilities across the districts. However, it may be observed that the magnitude of the correlation coefficient between general health and overall living standard index is relatively less compared with correlation with other utility indicators.

Drainage works has greater relationship with the general wellbeing of the beneficiaries, it has a correlation of 0.77 significance at 5 percent of the population. Further, the findings also revealed that there is a need to maintain cleaner drains which has been a constant need that is not resolved by the authorities. Thus, health issues need specific attention beyond merely paying attention to only to provide basic minimum Infrastructure. Further regression analysis was conducted in order to see which of the works had greater impact on the overall standard of living and quality of life of the beneficiaries. The following section provides details of the regression analysis.

Beneficiaries have expressed varied responses regarding the overall improvement due to infrastructural development. Therefore, it is more desirable to examine how responses would vary across taluks which are clustered into three broad groups. This led us to examine whether the linkage between the two indicators continue to remain the same across taluks which are at varied degrees of development. We have compared the values of overall standard of living index across three clusters identified for the purpose. The results are

presented in table-21. One may notice it from the figures presented in table-21 that though the value of index varies across the clusters, differences in the values across are very narrow. This implies that irrespective of level at which Taluks have been placed, perception of respondents strengthens the argument that certain basic infrastructure is a prerequisite for bringing in improvement in standard living.

Table 22: Values of Standard of Living Index across clusters

Cluster No	No. taluks	Value of Standard of Living Index
1	6	3.88
2	34	3.83
3	13	3.74

Note: To substantiate the above fact, attempt was made fit quantile regression to the data

Quantile Regression

Quantile regression is a type of regression analysis used in statistics and econometrics. Whereas the method of least squares estimates the conditional mean of the response variable across values of the predictor variables, quantile regression estimates the conditional median (or other quantiles) of the response variable. Quantile regression is an extension of linear regression used when the conditions of linear regression are not met. One advantage of quantile regression relative to ordinary least squares regression is that the quantile regression estimates are more robust against outliers in the response measurements.

Since development works undertaken in SC/ST colonies vary across the taluks and these colonies being highly heterogeneous, the mean response captured by the regression analysis may not be appropriate to capture the relationship between development and its impact on overall living standards. Therefore, quantile regression was attempted to capture the relationship.

Quantile regression is of the form: $Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \epsilon_i$

Where:

Y_i = Overall Living Standard Index of SC/ST colony of i^{th} Taluk

X_1 = utility Indicator in respect of Cement Road

X_2 = utility Indicator in respect of Drainage work

X_3 = utility Indicator in respect of Drinking water

X_4 = utility Indicator in respect of Community hall

X_5 = Indicator in respect of General health

ϵ_i = Random disturbance term

Table 23: Results of Quantile Regression

Independent Variables (utility Indicators in respect of)	Tau = 0.25		Tau = 0.50 (median regression)		Tau = 0.75		ANOVA – F-value between tau- 0.25 and tau-0.75
	Regression coefficient	t-value	Regression coefficient	t-value	Regression coefficient	t-value	
Constant	-0.00315	-0.42	0.00235	0.58	0.00464	1.36	F-value = 2.375 **
Cement Road (X1)	0.24786	9.14*	0.27839	9.05*	0.34656	18.92*	
Drainage works (X2)	0.20821	18.61*	0.19378	17.03*	0.16962	16.54*	
Drinking water (X3)	0.21485	11.45*	0.19059	8.88*	0.15093	14.32*	
Community Hall (X4)	0.17379	19.63*	0.16951	18.26*	0.15276	34.02*	
General health (X5)	0.16735	16.00*	0.17351	16.07*	0.17866	18.06*	

Note: “*” indicates significance at 1 % l.s; “**” indicates significance at 5 % l.s

[Dependent Variable: Y= Overall Living Standard Index]

The impact of development works in improving overall standard of living of SC/ST colony is glaring across the three quantiles, as all the regression coefficients are statistically significant. However, one may observe variation in magnitude of the impact of development works across the three quantiles, as the magnitude of regression coefficients considerably vary across the regression equations. Results of ANOVA carried out to examine whether the regression equation fitted for first (tau=0.25) and third quantile (tau=0.75) has turned out to be statistically significant. This result further strengthens our argument that the impact of infrastructural work on the overall living index of the beneficiaries varies across different taluks. Further it may be observed that drainage works and drinking water facility have registered higher regression coefficient for the first quantile (tau=0.25) compared to other two quantiles. This further strengthens the argument that ensuring basic infrastructure will push the area to the orbit of development.

Thus, correlation and regression analysis carried out further strengthens the need for more attention and emphasis on providing basic facilities and specifies the need to involve beneficiaries at all the stages of planning, execution, and implementation.

3.5 Status of Infrastructure

Attempt has been made to depict pictorially and to provide the comprehensive view of status of the development works taken in SC/ST colony across the eight districts. An opinion about the impact and performance of the infrastructural works on the beneficiaries and community was collected. The responses are analysed and represented below. Boxes with red colour under respective work indicate low or poor perception and as well the impact of respective work on the community. On the other hand, boxes with yellow colour indicate that perception of beneficiaries about the work is either moderate or mixed. Whereas the green coloured boxes indicate high or good response towards a particular work.

Amongst the taluks, two taluks (Sindagi taluka, Vijayapur district; Yalanduru taluka, Chamarajanagar district) have expressed low/poorer opinion for all the four works. There are quite few taluks where three of the four major works undertaken have red strips. Interestingly, none of the taluks have rated all the four infrastructure works as high/good. Thus, there appears wide variation in implementation of works across the taluks. Given this wide variation, it was more apt to use cluster analysis for comparative purposes and to identify good, bad, and average performing taluks.

Table 24: Status of Major Infrastructure development in SC/ST Colony

Districts	No	Taluk	Performance Status			
			Cement Road	Drinking Water	Drainage	Community Hall
BELAGAVI	1	ATHANI	Low/Poor	Moderate	Low/Poor	Moderate
	2	BAILAHONGALA	Low/Poor	Moderate	Low/Poor	Low/Poor
	3	BELAGAVI	Low/Poor	High/Good	Low/Poor	Low/Poor
	4	CHIKKODI	High/Good	Moderate	High/Good	Moderate
	5	GOKAK	High/Good	Moderate	High/Good	Moderate
	6	HUKKERI	High/Good	Moderate	High/Good	Moderate
	7	KHANAPURA	High/Good	Low/Poor	High/Good	High/Good
	8	RAIBAG	High/Good	Moderate	High/Good	Moderate
	9	RAMADURGA	High/Good	High/Good	High/Good	Moderate
	10	SAVADATTI	High/Good	Moderate	High/Good	Moderate
TUMKUR	11	CKHALLI	High/Good	High/Good	High/Good	High/Good
	12	GUBBI	Low/Poor	Moderate	Low/Poor	Low/Poor
	13	KORATAGERE	Moderate	Moderate	Moderate	Moderate
	14	KUNIGAL	High/Good	High/Good	Moderate	High/Good
	15	MADHUGIRI	Moderate	Moderate	Moderate	High/Good
	16	PAVAGADA	Moderate	Moderate	Moderate	Low/Poor
	17	SIRA	High/Good	High/Good	Moderate	High/Good
	18	TIPTUR	Low/Poor	Moderate	Low/Poor	Low/Poor
	19	TUMKUR	Moderate	Moderate	Moderate	Moderate
	20	TURUVEKERE	Low/Poor	Moderate	Low/Poor	Low/Poor

Table 24: Status of Major Infrastructure development in SC/ST Colony (Contd.)

Districts	No	Taluk	Cement Road	Drinking Water	Drainage	Community Hall
KOLAR	21	BANGARPET				
	22	KGF				
	23	KOLAR				
	24	MALUR				
	25	MULABAGILU				
	26	SRINIVASAPURA				
KALBURAGI	27	AFZALPUR				
	28	ALANDA				
	29	CHINCHOLI				
	30	CHITTAPURA				
	31	JEWARGI				
	32	KALBURGI				
	33	SEDAM				
MYSORE	34	HD KOTE				
	35	HUNASURU				
	36	K R NAGAR				
	37	MYSORE				
	38	NANJANAGUDU				
	39	PIRIYAPATNA				
	40	T NARASIPURA				
CHAMRAJANAGAR	41	CHAMARAJANAGAR				
	42	GUNDLUPETE				
	43	KOLLEGALA				
	44	YALANDURU				
VIJAYAPUR	45	BAGEVADI				
	46	BIJAPURA				
	47	INDI				
	48	MUDEBIHAL				
	49	SINDAGI				
RAICHUR	50	DEVADURGA				
	51	LINGASUGURU				
	52	MANVI				
	53	RAICHUR				
	54	SINDHANURU				

Source: Primary Data

3.5.1 Cluster Analysis: Good, Bad and Average

To determine the performance of the taluks the study adopted the method of cluster analysis. Cluster analysis examines the interdependent relationships between the whole set of variables. The primary objective of cluster analysis is to classify the objects into relatively homogeneous groups based on the set of variables considered. Objects in a group are relatively similar in terms of these variables and different from the objects in other groups.

Cluster analysis reduces the number of objects, not the number of variables, by grouping them into a much smaller number of clusters. Further, hierarchical clustering is characterized by the development of hierarchy or tree-like structure. The hierarchical method can be agglomerative or divisive. Agglomerative clustering starts with each object in a separate cluster. Clusters are formed by grouping objects into bigger and bigger clusters. This process is continued until all objects are members of a single cluster.

The present study has collected data from the beneficiaries from the colonies using in a structured schedule. The following key indicators are considered to examine the perception of respondents regarding how these development works have enabled to improve their living conditions. The key indicators are mentioned in table 25 below.

Table 25: Key Performance Indicators

Infrastructural facilities	Key Performance Indicators
Construction of Cement Roads	<ul style="list-style-type: none"> • Whether the access and mobility have improved after the laying cement roads in colony. • How Road is being utilized by the community including drying of crops. • Whether the connectivity has improved after laying down cement roads thereby reducing medical emergencies in the colony.
Drinking water	<ul style="list-style-type: none"> • Whether colony has better drinking water connectivity / every house in the colony has drinking water facilities • Quality of drinking water supplied. • Maintenance of water tanks by undertaking periodic cleaning and instance of ill-health due to poor drinking water. • Ensuring continuous water supply to the residents.
Drainage works	<ul style="list-style-type: none"> • Quality and Maintenance of Drainage system. • Cleaner and hygienic surroundings. • The completion works on time.
Construction of Community Halls	<ul style="list-style-type: none"> • Whether community halls are being used for social and cultural exchange programs. • Whether the community halls are maintained properly- Clean and hygienic. • The community hall/samudaya bhavan is of good quality and is well maintained
Standard of living index	<ul style="list-style-type: none"> • Respondents were asked to provide their opinion about whether the living standards have improved after undertaking various development works in the colony
Community Participation	<ul style="list-style-type: none"> • Whether the community has consulted before taking development works. • Whether the community is involved in executing development works. • Whether the community has been informed about the type of works to be undertaken

The present study was conducted across eight districts and covered 54 taluks. The data is aggregated at taluka level. The aggregation of data collected from different SC/ST colony within the taluka may be substantiated from the following view. Different composition of infrastructural works has been implemented in SC/ST colonies spread across these taluks, thus it was felt more appropriate to aggregate the beneficiary opinions at level of taluks. Such an analysis will provide a comprehensive understanding of the opinions provided by the beneficiaries about different types of infrastructural works undertaken with the intention of improved living standards of the community.

Further, the study attempts to cluster the taluks into three broad groups considering 17 key indicators as listed in table 25. Using the hierarchical cluster approach, the taluks have been classified into three broad clusters and the mean scores for various indicators are mentioned in table 27. The cluster groupings are listed below.

Table 26: Cluster groupings of taluks

Cluster-I	Cluster-II	Cluster-III
No. of taluks = 6	No. of taluks= 34	No. of taluks =13
Kunigal	Athani, Chikkodi, Gokak,Hukkeri, Khanapura,	Bailahongala, Belagavi,
Sira	RaibagRamadurga, Savadatti,Koratagere,	Gubbi, Tiptur, Bangarpet,
Kalburgi	Madhugiri, Pavagada, Tumkur,Turuvekere,	Hunasuru
Bagevadi	KGF, Kolar, Malur, Mulabagilu, Srinivasapura,	Nanjanagudu, T -
Indi	Afzalpur, Alanda, Chincholi, Chittapura,	Narasipura, Gundlupete
Muddebihal	Jewargi, Sedam,H.D. Kote, K R nagar,	Yalanduru, Bijapura
	Mysore, Piriapatna, Chamarajanagar,	Sindagi, Devadurga
	Kollegala, Lingasuguru, Manvi, Raichur,	
	Sindhanuru	

Some explanations about the construction of key indicators may be in order. Perception of sample respondents on the type of works undertaken in the colony, viz., the extent of peoples' participation, quality of works undertaken, the extent to which these works are being utilized by the community, how these works have improved their living conditions, whether the program has been able to reach its intended outcome and so on were elicited by posing sequence of questions using a five-point continuum Likert scale. The survey and interview questions were derived from the evaluation framework as presented in figure 2.

Further, the responses were converted into an index using the number of respondents who have given different scores as weights. If the response contains a single statement, the weighted average approach is used to transform them into the index. On the other hand, if the response is based on multiple statements, they are transformed into a standard index using

appropriate transformation. In the former case, values of index lie in the range of one to five. The median value is three. In the latter case, the value of index lies between zero and one. These indices constructed for various key indicators were utilized to cluster the taluks into three broad groups and a mean score of key performance indicators is given in the table below.

Table 27: Mean Scores of Key Performance Indicators

Sl. No	Key Indicators	Mean Scores of key Indicators			F-Value
		CLUSTER-I	CLUSTER-II	CLUSTER-III	
Community Participation					
1	Community was consulted	4.6	3.3	3.2	19.09*
2	Community was involved	4.6	3.5	3.1	37.35*
3	Community was informed	4.7	3.7	3.3	32.83*
4	Overall living Index	4.7	3.8	3.3	44.86*
Cement Road					
5	Access and Mobility	0.8	0.8	0.7	3.66**
6	Utilization of Road	4.8	4.1	3.8	39.27*
7	Decrease in medical emergencies due better access to facilities	0.8	0.8	0.7	3.82**
Community Hall					
8	Used for Social and Cultural exchange	4.6	3.0	2.1	130.37*
9	CH maintained cleanly and hygienically	3.1	2.7	2.4	4.34**
10	Constructed with quality material.	4.2	2.8	2.2	67.37*
Drinking Water					
11	Access to every household for drinking water.	0.8	0.8	0.7	1.65 ^{NS}
12	Availability of Potable water	0.6	0.6	0.5	3.68**
13	Regular maintenance for hygienic conditions.	0.6	0.6	0.5	0.66 ^{NS}
14	Ensuring continuous water supply.	0.8	0.7	0.7	2.70 ^{NS}
Drainage Work					
15	Drainage quality	0.3	0.5	0.4	3.71**
16	Drainage Cleanliness	0.3	0.5	0.4	5.32*
17	Completion works on time.	3.9	4.1	4.2	1.04 ^{NS}

Note: Single star denotes statistical significance at 1%; Double star indicates Statistical significance at 5%; NS: Statistically Non-significant

We may note from the above table that three groups have distinctive scores on the key performing indicators. The cluster-I has a higher score compared to cluster-II, and cluster-II has a higher score compared to cluster-III. Higher of values for the key indicators indicate the more positive perception of respondents towards benefit being accrued to community and usefulness of infrastructural works undertaken in the colony. This would mean that the

beneficiaries from the taluks falling under the cluster-I have expressed higher satisfaction about the infrastructural works compared to the taluks in the other two clusters.

Since the scores for the key performing indicators in cluster-III is lower than the other two clusters, it may be inferred that beneficiaries from SC/ST colonies under the taluks categorised under cluster-III have least satisfaction about the infrastructural works and the benefits that community has accrued due to the implementation of the infrastructural works.

To further validate the findings of cluster analysis, an attempt has been made to carry out one-way analysis of variance (ANOVA) and the F-statistic. The analysis is presented in table 27. The F values are statistically significant for most of the identified indicators and it could be inferred that the perception about the infrastructural works differs among the beneficiaries across the colonies of the taluks falling under three identified clusters.

3.5.2 Selection of Best and Poor Taluks

Taking clue from the cluster analysis described in the previous section, we could consider that the works executed in SC/ST colonies of taluks categorized under cluster-I are better compared to that of taluks under cluster-III. Further analysis of the utility of the implemented infrastructural works in the colony, we have identified one best taluka from cluster-I as best taluka and one taluka from cluster-III as poor performing taluka. Also, the overall living standard index was taken into consideration for comparison purpose and the best and poor performing taluks were identified.

Keeping the aforementioned factors in view, Bagevadi taluka from Vijayapura district categorized under cluster-I is chosen as the best performing taluka. It has secured a maximum score of five for living standard index. Next, Gundlupete taluka from Chamarajanagar district categorized under Cluster-III having lowest and least score of 2.9 on the overall living standard index is categorised as a taluka with poor performance.

To further substantiate and critically analyse the above findings, the qualitative data presented in the subsequent sections of the report delineate the perceptions and opinions of the beneficiaries in general. For instance, Kalaburgi has an above-average socio-cultural index score (table 32), however, it was observed through case studies that the beneficiaries from few colonies of Kalaburgi taluka have collectively voiced out the need for the construction of community halls. They further opined that there is a need for speedy completion of the infrastructural works since it benefits the poorer section of the society and such developmental works also improve their standard of living and social respect. Despite

Kalburgi has been categorised under cluster I, there could be such variations within a given cluster. Thus, critical insights from the qualitative research methods are worthwhile exploring.

3.5.3 Ranking of Districts

To further substantiate the cluster analysis, Garrett's ranking technique was used to assign ranks to the districts with reference to the KPIs. Garrett ranking method is applied to analyse the importance given by the beneficiaries to each of the KPIs.

$$\text{Percent position} = \frac{100 (R_{ij} - 0.5)}{N_j}$$

Where R_{ij} = Rank given for the i th variable by j th respondents

N_j = Number of statements ranked by j th respondents.

Based on the opinions of the beneficiaries for statements pertaining to each KPI, the scores are added and then total value of scores and mean values of score are calculated. The outcomes of such ranking have been converted into Garrett values for each of the districts. Garrett's Table (table 28) represents the percent position of the converted scores for all the key performance indicators and respective ranks obtained for each of the districts. The results show that Kalaburgi district has obtained a Garrett score of 1171 with 65 per cent been ranked first when compared to other districts. This finding is also consistent with the beneficiaries' general perception, where about 81.9 per cent have agreed that the implementation of infrastructure works has aided in the overall standard of living.

Table 28: Ranking of Districts: Using Garret Ranking Technique

Districts	Garrett score	Percent (%)	Rank
Kalaburgi	1171	65	I
Tumkur	1021	57	II
Vijayapur	1032	57	II
Belagavi	999	56	III
Raichur	899	50	IV
Kolar	859	48	V
Mysore	647	36	VI
Chamarajanagar	628	35	VII

Note: Ranking are based on 17 KPIs

Source: Primary Data

The following section provides an overview of the developmental works in terms of the physical progress and financial expenditure. The details of PWD works in terms of number of works, kilometres and expenditure are represented in table 29 and 29.1

In the following section based on the data provided by the Engineer Division, PWD department for the period of 2014-15, 2015-16 and 2016-2017. Table 29 illustrates the total number of works, total estimate, and expenditure by the PWD department for the period of 2014-15, 2015-16 and 2016-17.

Table 29: Details of PWD works implemented by PWD, GoK

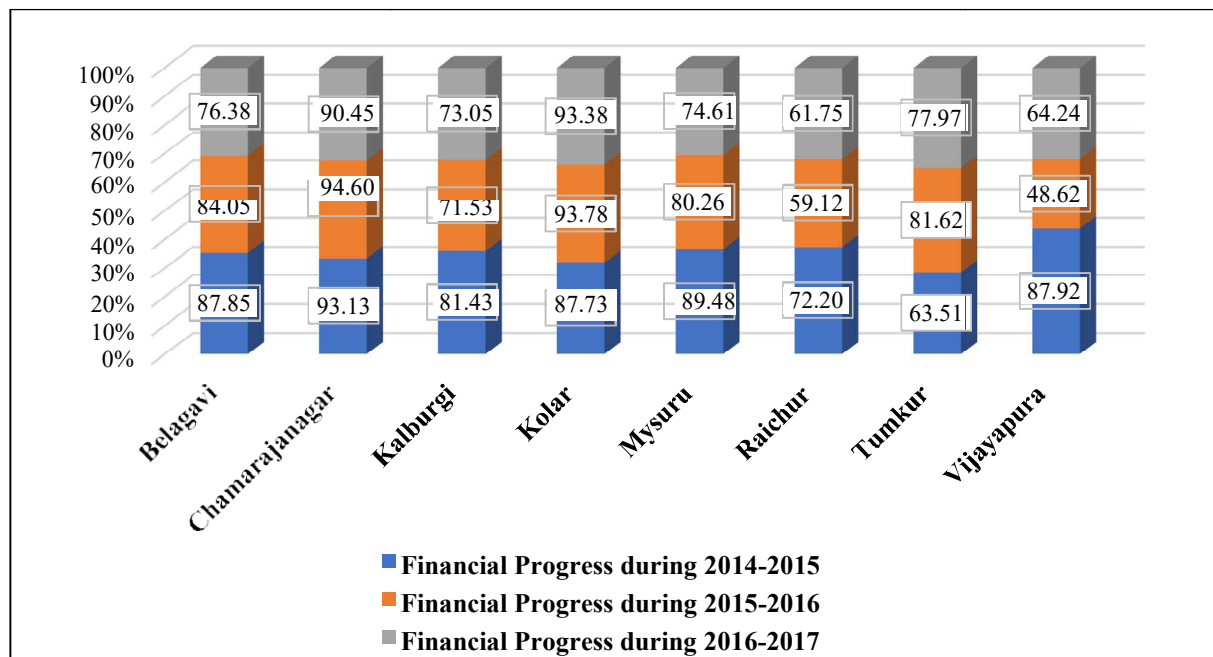
District	2014-2015					2015-2016					2016-2017					Total No. of works
	No. of works	Total Estimated cost	Total Expenditure	Length of the Road (in meters)	Length of the Drain Constructed (in meters)	No. of works	Total Estimated cost	Total Expenditure	Length of the Road (in meters)	Length of the Drain Constructed (in meters)	No. of works	Total Estimated cost	Total Expenditure	Length of the Road (in meters)	Length of the Drain Constructed (in meters)	
Belagavi	68	1120.99	984.75	20490	3187	113	2023.29	1700.54	30824	9767	171	3019.36	2306.29	44534	14471	352
Chamarajanagar	158	2607.14	2427.94	42.68	54.5	84	1259.76	1191.69	18.89	37.78	203	3322.29	41374.34	42.92	85.84	445
Kalburgi	190	1757.86	1431.38	39.56	0.53	253	3282.74	2348.04	78.44	1.21	186	2961.59	2163.47	55.36	0.77	629
Kolar	283	1619.6	1420.93	33.99	--	509	3346.12	3137.99	75.1	--	494	3174.91	2964.88	78.4	--	1286
Mysuru	62	1186.27	1061.47	11444.2	--	80	2368.2	1900.63	22564	--	85	2620.9	1955.33	22406.5	--	227
Raichur	116	2639.87	1906.04	65.575	--	211	5745.91	3397	94.18	--	248	9305.04	5745.96	113.64	--	575
Tumkur	146	1676.12	1064.44	13945	18965.2	262	3277.9	2675.39	32428	43305.96	177	3070.89	2394.28	31697	42478.65	585
Vijayapura	58	1736.08	1526.44	42076.2	585	74	3139.31	1526.44	48737	1445	74	2444.93	1570.73	42181.1	1889	206
Total	1081	14343.9	12033.9	88137.2	22792.23	1586	24443.2	63090	134820	54557	1638	29919.9	60475.3	141109	58925.3	4305

Note: Rupees spent in lakhs.

Source: Executive Engineer, District PWD division, GoK

According to the data provided by the Executive Engineer, District PWD division, GoK a total of 4305 PWD works have been initiated across the eight districts from 2014 to 2017. In comparison to the eight districts in Karnataka, Kolar and Kalburgi districts have been allocated the maximum number of PWD works with 1286 and 629 works, respectively. While Mysore and Raichur have been allocated a smaller number of PWD works with 227 and 206 works, respectively (See Table 29).

Graph 4: Financial Targets achieved for PWD works



Note: Financial expenditure represented in percentages
 Source: Executive Engineer, District PWD divisions, GoK

Graph 4 represents the percentage of expenditure towards construction of cement roads by the PWD across eight districts in Karnataka. In the year 2014-15, Chamarajanagar has reported the highest financial progress by utilizing 93.13 percent of the total funds allocated, while Tumkur has reported least financial progress with utilization of 63.51 percent of the total funds allocated towards construction of cement roads as compared other districts. In the year 2015-16, Chamarajanagar has reported highest financial progress by utilizing 94.60 percent of the total funds allocated whereas Vijayapura has reported least financial progress with utilization of 48.62 percent of the total funds allocated towards construction of cement roads vis-à-vis other districted. In the year 2016-17, Chamarajanagar has reported highest financial progress by utilizing 90.45 percent of the total funds allocated and Raichur has reported the least financial progress with utilization of 61.75 percent of the total funds allocated towards construction of cement roads across eight districts in Karnataka.

Table 29.1: Details of PWD works implemented by SWD

District	2014-2015			2015-2016			2016-2017		
	No. of works	Sanctioned amount	Expenses	No. of works	Sanctioned amount	Expenses	No. of works	Sanctioned amount	Expenses
Belagavi	--	--	--	--	--	--	139	950	789.27
Chamarajanagar	69	540	540	--	--	--	--	--	--
Kalburgi	--	--	--	--	--	--	--	--	--
Kolar	9	45	44.68	--	--	--	253	1248	1139.06
Mysuru	104	1,460	1,460	--	--	--	39	740	740
Raichur	52	600	462.75	--	--	--	27	135	132.17
Tumkur	59	680	607.42	18	137	125.69	85	1173	832.62
Vijayapura	51	660	660	--	--	--	--	--	--

Note: Rupees in lakhs

Source: Social Welfare Department, GoK

Table 29.1 depicts the total number of works carried out by the respective departments over the years across the eight districts. It is observed that during the year 2015-16 there were no financial allocation development works carried out across the districts except for Tumkur. Amongst the eight districts, Kolar has received more attention in terms of total number of works i.e., 262 works in total.

Table 30: Financial progress for construction of community halls

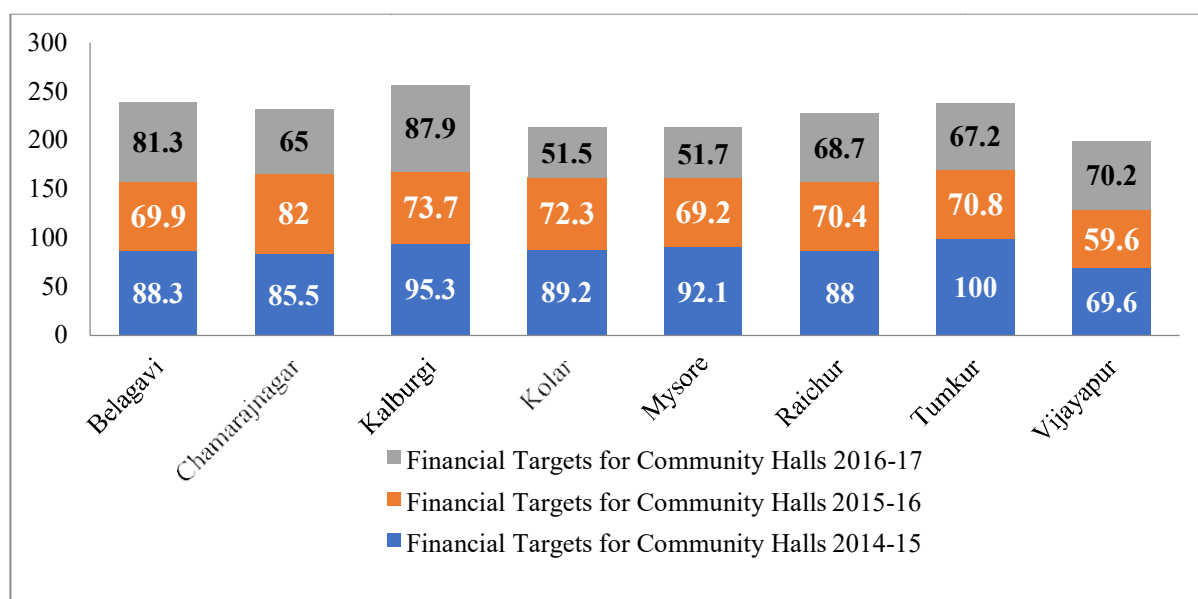
District	2014-2015		2015-2016		2016-2017	
	Financial outlay	Financial Expenditure	Financial outlay	Financial Expenditure	Financial outlay	Financial Expenditure
Belagavi	717	633	1638	1144.28	1454	1182.1
Chamarajanagar	265	226.5	724	593.5	180	117
Kalburgi	739.8	704.8	1425	1050	1188	1044
Kolar	380	339	1077	778.2	1014	522
Mysore	810	746	506	350	1296	669.8
Raichur	4157.8	3660.1	8589	6045.28	7627	5241.5
Tumkur	580	580	2026	1433.6	1082	726.8
Vijayapura	566	393.8	1033	615.7	1353	949.8
Total	8215.6	7283.2	17018	12010.56	15194	10453

Source: Social Welfare Department, GoK

Note: Rupees in lakhs

The above table provides the financial details and progress for construction of community halls across the eight districts. It could be observed that Rs.12010.56 lakhs are accounted as expenditure in the year 2015-2016, which is more than the financial outlay i.e., Rs. 17018 lakhs. The graph 5 shows the percentage of financial targets achieved for each district with respect to construction of community halls.

Graphs 5: Financial targets achieved for community halls



Note: Financial expenditure represented in percentages

Source: Social Welfare Department, GoK

Graph 5 depicts the financial targets for respective districts from 2014-2017. Tumkur district in the year 2014-2015, has utilised 100 percent of fund allocated for the construction of community halls. Kalburgi and Mysore districts have utilised 95.3 per cent and 92.1 per cent of the funds allocated for construction of community halls in the same year. During the year 2015-2016 Chamarajanagar district has utilised 82 percent of the funds allocated; and Kalburgi district has utilised 87.9 per cent of the funds allocated for construction of community halls during the year 2016-2017.

Table 30.1: Physical targets and achievements for community halls from 2014-15 to 2016-17

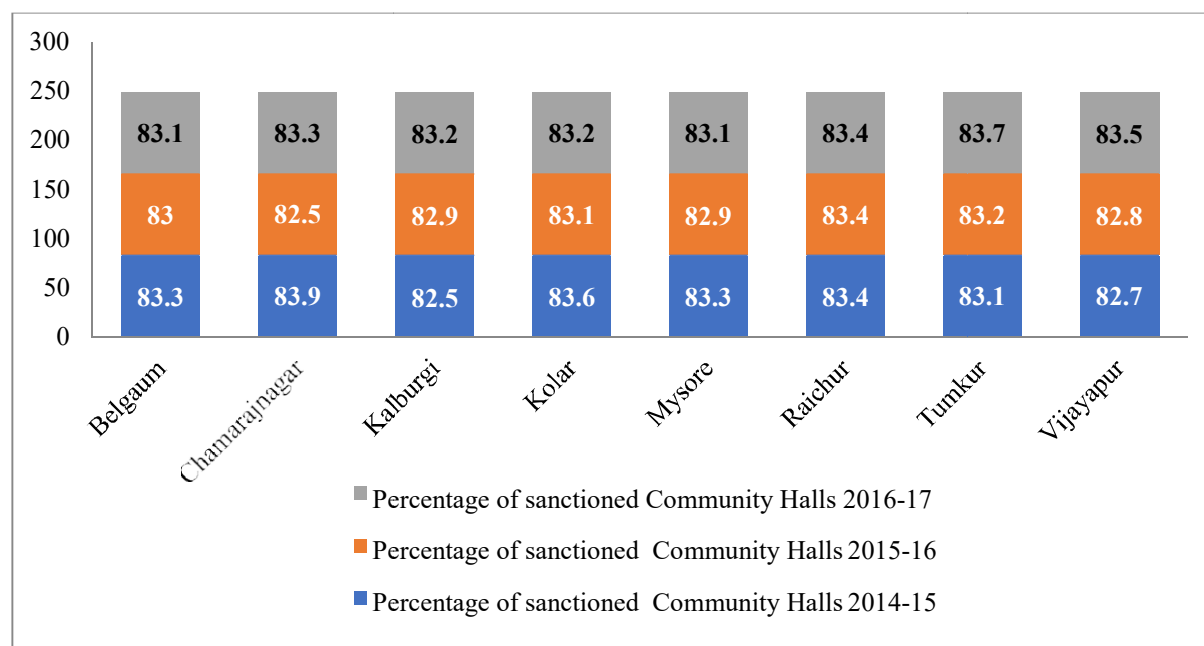
District	2014-15		2015-16		2016-17	
	No. of CH planned	No. of CH sanctioned	No. of CH planned	No. of CH sanctioned	No. of CH planned	No. of CH sanctioned
Belgaum	78	65	100	83	142	118
Chamarajanagar	31	26	40	33	18	15
Kalburgi	40	33	70	58	119	99
Kolar	67	56	136	113	101	84
Mysore	72	60	41	34	148	123
Raichur	428	357	577	481	722	602
Tumkur	77	64	119	99	104	87
Vijayapura	52	43	64	53	85	71
Total	845	704	1147	954	1439	1199

Source: Social Welfare Department, GoK

Note: CH: Community Halls

Table 30.1 represents the year wise plans and number of community halls sanctioned as part of the infrastructural scheme. A total of 3431 (845+1147+1439) community halls were planned across the eight districts. A total of 2857 (704+954+1199) community halls were sanctioned. The total number of sanctioned community halls account for 83.27 per cent of physical targets achieved. Graph 5.1 below shows the percentage of sanctioned community halls for each district from 2014-2017.

Graph 5.1: Physical targets and achievements for community halls from 2014-15 to 2016-17



Note: Physical targets achieved are represented in percentages

Source: Social Welfare Department, GoK

3.6 Community halls and socio-cultural integration

The community halls (also known as Samudaya Bhavans, Ambedkar Bhavans and Jaga Jivan Ram Bhavans, Maharshi Valmiki Bhavan) are constructed in SC/ST colonies to enhance socio-cultural integration among the beneficiaries. The study mainly focused on eliciting information regarding timely completion of works and quality of construction, type of facilities provided, extent of maintenance and purpose for which community halls are being used.

To capture the overall perception of beneficiaries of SC/ST colony about community hall, data was collected using a Likert five-point continuum scale. Information was collected by seeking response on eleven statements covering various aspects pertaining to community hall. The score obtained on each of the eleven questions were aggregated and converted into an

index reflecting the overall perception of the beneficiaries. Based on the value of index, taluks have been categorized into Low, Moderate and High following the criterion explained in methodology section.

The results are summarized in Table 31. 18.5 per cent of the taluks have expressed high opinion about the community hall in the colonies, and 15 taluks accounting for 27.7 per cent of taluks have expressed poor opinion about the community hall and its facilities. Further, 29 taluks accounting for 53.8 per cent have expressed mixed opinion regarding the community halls.

Table 31: Perception of respondents about Community Hall

NO	Classifications of Taluks	No. of Taluks (Percentage)	Names of Taluks
1	Low	15 (27.7 %)	BELAGAVI, HUNASURU, BAILHONGALA, GUBBI, DEVADURGA, NANJANAGUDU, TIPTUR, T NARASIPURA, BANGARPET, SINDAGI, TURUVEKERE, ALANDUR, MULABAGILU, PAVAGADA, ALANDA
2	Moderate	29 (53.8 %)	ATHANI, SINDHANURU, HD KOTE, TUMKUR, PIRIYAPATNA, GUNDLUPETE, CHINCHOLI, SRINIVASPURA, MALUR, LINGASUGURU, KGF, KORATAGERE, MYSORE, BIJAPURA, KR NAGAR, CHAMRAJANAGAR, CHIKKODI, SAVADATTI, CHITTAPURA, KOLAR, AFZALPUR, GOKAK, RAMADURGA, HUKKERI, KOLLEGALA, JEWARGI, SEDAM, RAIBAG, RAICHUR
3	High	10 (18.5 %)	MADHUGIRI, KHANAPURA, MANVI, SIRA, INDI, KUNIGAL, KALABURAGI, MUDDEBIHAL, CK HALLI, BAGEVADI
	Total	54 (100.0 %)	

Source: Primary data

Community halls: Socio-Cultural Exchange

Table 32 captures the benefits of community halls in terms of the socio-cultural utility exchange across the colonies. The scores are represented through index scores, the scores value fall in the range one to five. The overall socio-cultural index score obtained was 3.5 out of 5.

Further it may be observed from the Table 32, for majority of taluks index value is less than 3 or cluster around 3 which happens to be the median value of the scale. The index scores reflect the modest usage of community halls by the beneficiaries. For instance, the community hall in Kalahastipura, Kolar district was completed, however the access to the community hall was not provided to the beneficiaries. Concerned personnel and few

beneficiaries mentioned that the community hall needs to be inaugurated by local MLA/MP prior to providing access to the community. The community hall was constructed in a corner of an open land, which had no approach roads and there were no steps to access the community hall. Such instances show how the initiatives have failed to reach the intended outcomes. More concerted efforts are necessary to make use of available infrastructure to its full potential for the benefit of community.

Table 32: Table depicting the socio-cultural exchange index in community halls across the divisions and taluks

Districts	No	Taluks	Social and Cultural Exchange
BELAGAVI	1	ATHANI	2.6
	2	BAILAHONGALA	1.8
	3	BELAGAVI	1.7
	4	CHIKKODI	3.1
	5	GOKAK	3.2
	6	HUKKERI	3.3
	7	KHANAPURA	3.4
	8	RAIBAG	3.3
	9	RAMADURGA	3.2
	10	SAVADATTI	3.1
			District Index
TUMKUR	11	CK HALLI	5.0
	12	GUBBI	1.9
	13	KORATAGERE	2.9
	14	KUNIGAL	4.6
	15	MADHUGIRI	3.5
	16	PAVAGADA	2.5
	17	SIRA	4.0
	18	TIPTUR	2.0
	19	TUMKUR	2.6
	20	TURUVEKERE	2.4
			District Index
KOLAR	21	BANGARPET	2.3
	22	KGF	3.1
	23	KOLAR	3.2
	24	MALUR	2.8
	25	MULABAGILU	2.6
	26	SRINIVASAPURA	2.8
			District Index
KALBURGI	27	AFZALPUR	2.8
	28	ALANDA	2.6
	29	CHINCHOLI	2.6
	30	CHITTAPURA	3.0
	31	JEWARGI	3.2
	32	KALBURGI	4.7
	33	SEDAM	3.2
			District Index

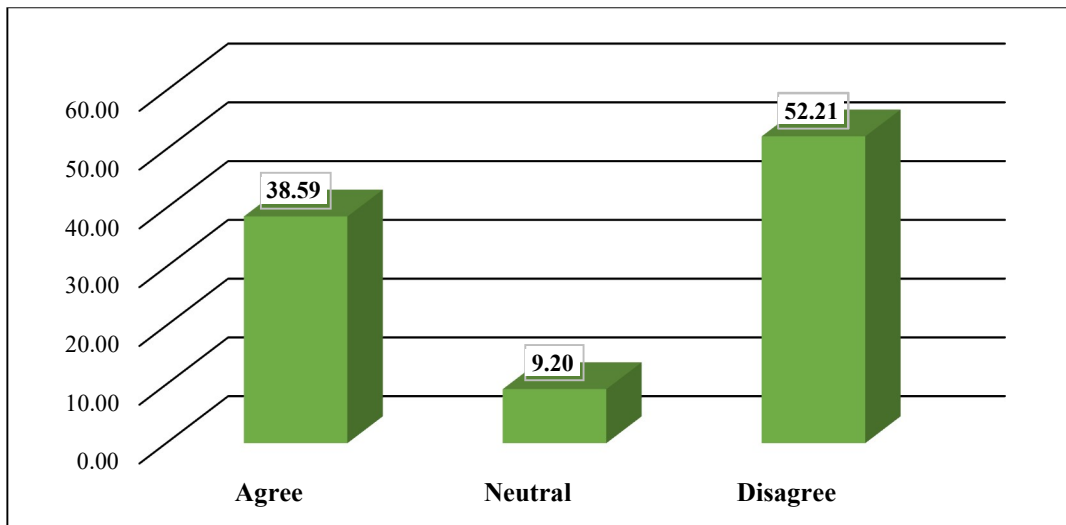
Table 32: Table depicting the socio-cultural exchange index in community halls across the divisions and taluks (Contd.)

Districts	No	Taluks	Social and Cultural Exchange
MYSORE	34	HD KOTE	2.7
	35	HUNASURU	1.8
	36	K R NAGAR	3.3
	37	MYSORE	3.1
	38	NANJANAGUDU	2.2
	39	PIRIYAPATNA	2.6
	40	T NARASIPURA	2.2
	District Index		2.6
CHAMRAJANAGAR	41	CHAMRAJANAGAR	3.1
	42	GUNDLUPETE	2.5
	43	KOLLEGALA	3.1
	44	YALANDURU	1.7
	District Index		2.8
VIJAYAPUR	45	BAGEVADI	5.0
	46	BIJAPURA	2.5
	47	INDI	4.1
	48	MUDDEBIHAL	4.9
	49	SINDAGI	2.0
	District Index		3.9
RAICHUR	50	DEVADURGA	2.2
	51	LINGASUGURU	2.9
	52	MANVI	3.4
	53	RAICHUR	3.3
	54	SINDHANURU	2.8
	District Index		3.0
Overall Index			3.5

Source: Primary data

Note: Index scores represent the utility index of the community halls.

Graph 6 depicts the beneficiaries' dissatisfaction over the quality, maintenance of the community halls constructed across the colonies. 52.21 per cent of the beneficiaries disagreed with the overall quality and maintenance of the halls; 38.59 per cent agreed and 9.20 per cent expressed neutral responses. The custodian of the halls is usually one of the members of the colony, who will have access to these halls. It was evident during the field visits, that most of the community halls were not provided access; some halls were the epicentre for socio-cultural exchange; some were not inaugurated despite completion; some halls were incomplete due to issues in fund allocation and so on.

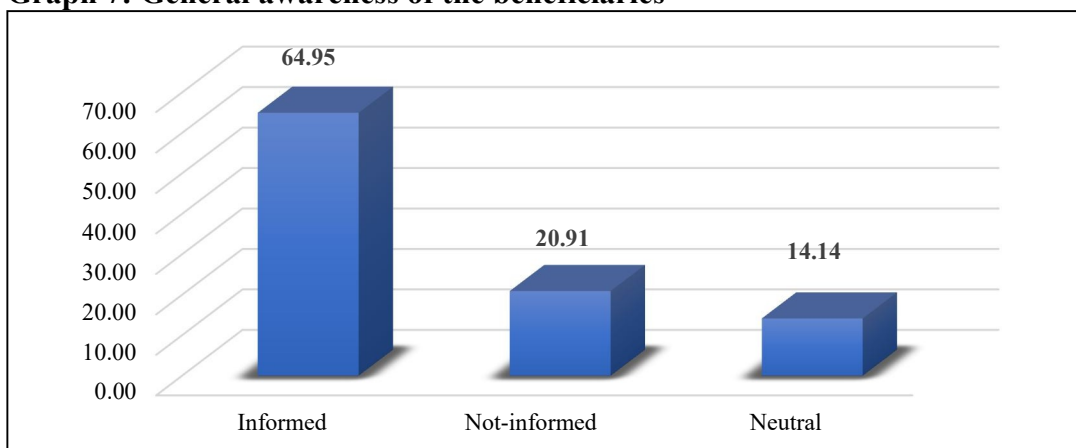
Graph 6: Beneficiaries' opinion on the overall quality of community halls

Note: Numbers in percentage

Source: Primary data

3.7 Awareness level of beneficiaries

Graph 7 reflects beneficiary's overall awareness about the scheme and awareness about the kind of infrastructural work being implemented in their respective colonies. 64.95 per cent of the beneficiaries have expressed that they were aware of the scheme and informed about the infrastructural developments during the stages of planning, implementation, and execution of works across the colonies. 20.91 per cent of the beneficiaries expressed that they were not informed about the scheme and 14.14 of them expressed neutral responses.

Graph 7: General awareness of the beneficiaries

Note: Numbers in percentage

Source: Primary data

In order to know the extent of awareness about the various infrastructural and development initiatives taken up by the department among the community people, attempt has been made to construct Awareness Index (AI). The index has been constructed by aggregating the

responses obtained on five-point continuum scale from the beneficiaries to elicit information, to what extent beneficiaries agree that they were informed, consulted, and involved during the planning, implementation of various infrastructural works taken up by the department. Number of beneficiaries falling under mutually exclusive five categories of responses are taken as weights, and the value assigned to each category (ranging from 1 to 5) is used as a measure to derive weighted response which is further designated as AI. The results are presented in Table-33.

Table 33: Awareness Index among Beneficiaries'

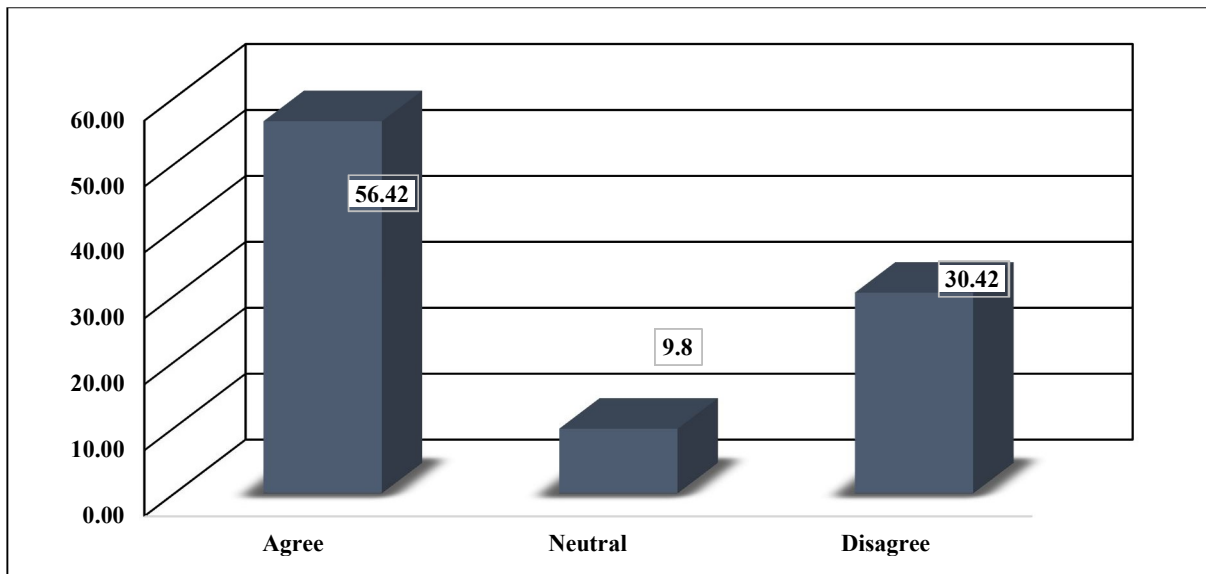
Districts	Awareness Index (AI)
BELAGAVI	3.4
CHAMRAJNAGAR	3.0
KALBURGI	4.0
KOLAR	3.5
MYSORE	3.6
RAICHUR	3.6
TUMKURU	3.8
VIJAYAPUR	3.9
Total	3.6

Note: Index value ranges from 1 to 5

Source: Primary data

The value of AI can fall in the range of one to five; a score of one represents least value and a score of five represents maximum value. The index value of three represents the median/middle value. It may be inferred from Table 33, that the beneficiaries tend to agree that they were aware about the various infrastructural works initiated and about the scheme.

Instances of beneficiaries voluntarily approaching the district Social Welfare Department in demand for infrastructure facility in their colonies were observed during the FGDs. For instance, beneficiaries from various other colonies in the Kalaburgi district had collectively voiced out the need for the construction of community halls. Thus, it could be understood that the beneficiaries did play an active role and participation during the implementation of infrastructural works.

Graph 8: Beneficiaries' opinion on the need for modifying the existing scheme

Note: Numbers depicted in percentage

Source: Primary data

56.42 per cent of the beneficiaries across the eight districts agreed that the scheme has to be modified. Majority of the respondents articulated the need for the scheme to be more engaging, consultative in the process of implementation, planning of developmental works.

30.42 per cent of the beneficiaries disagreed with the need for modification of the existing scheme and 9.8 per cent of them expressed neutral responses. It was observed during the FGDs that the beneficiaries and panchayath members across various colonies expressed the need for more participatory approach and need based assessment for allocating works; and also measures to ensure least political interference.

3.8 Beneficiary versus non-beneficiary Group

Table 34 provides an overview of the differences in the development indicators between the beneficiary group and the non-beneficiary group derived based on primary data. It may be noted that beneficiary group has registered for all the indicators compared to non-beneficiary group, the difference is statistically significant at 0.05 level. The result support the fact that benefits from the various activities accrued to beneficiary group is relatively higher compared to non-beneficiary group as expressed by the beneficiaries. Thus, the impact and utility of infrastructural works across the beneficiary group has been accepted, the non-beneficiary group have felt the need for such measures in their respective colonies.

Table 34: Utility Indices between beneficiary (control group) and non-beneficiary group

No	Indicators (utility indices developed based perception of beneficiaries)	Beneficiary Group	Non-Beneficiary Group	t-value
1	Cement Road	0.71	0.66	2.74*
2	Drainage	0.66	0.58	3.63*
3	Water facility	0.68	0.39	6.62*
4	Community Hall	0.45	0.38	2.38*
5	Health	0.53	0.45	3.32*
6	Perception	0.64	0.57	4.89*
7	Overall Standard Living	0.62	0.56	5.09*

Note: Index value range from 0 to 1. * P < 0.05

Source: Primary data

3.9 Personnel In-depth Interview

Personnel in-depth interview was conducted with concerned personnel, SWD, GoK. Analysis of their responses are detailed below:

1. Majority of the personnel opined that the fund allocation and release was sufficient to carry on the implementation of infrastructural works across the taluks and colonies of the respective districts.
 - a. 94.5 per cent of the personnel mentioned that the process of selection of colonies was as per the guidelines of the 2013 Act
 - b. 96 per cent of the personnel opined that the norms issued by the nodal department were strictly followed for the allocation of works. For instance, one of the norms is that samudaya bhavan's are approved and funds are allocated only if the land acquisition documents, and site registration documents are provided by the District Commissioner to the nodal department.
 - c. In addition, the personnel's opined that the infrastructure works are specifically implemented in colonies where it was habituated by SC/ST population and the criteria of population mentioned in the 2013 Act served as the determining factor. [Note: population was decided as the criteria for allocation of resources under SCSP/TSP during the State Council Meeting of the SWD (2014-2015)].
 - d. 74.5 per cent of the personnel opined that field visits and surveys by the nodal-department helped them to allocate works across the colonies. On the contrary, few personnel also mentioned that in some of the colonies, implementation of the works were carried based on the MLA's recommendation or sometimes with the demands voiced out by the residents of the colonies.

2. Majority of the personnel mentioned that the infrastructural works has had a positive impact to the beneficiaries. However, 11.7 per cent of beneficiaries suggest that they are not satisfied with the overall works and its impact on their standard of living; and 56.42 per cent of the beneficiaries agree the scheme needs to be modified.
3. 58.2 per cent of the personnel responded that the monitoring process is functional; however, the reports are mostly the minutes of the meeting and contains financial details only. The emphasis on reporting, reviewing and evaluation of the scheme have not been covered as part of these reports.
 - a. One of the personnel opined that time-bound monitoring and evaluation of the entire process of selection, consultation and implementation of work becomes very critical.
 - b. Lack of systematic reporting and evaluation affects efficient administration, thus the District Commissioner, tender agencies, panchayat members should be involved and made accountable as part of the DMCRs. Further, few of the personnel also opined that the DMCR must be conducted every quarter and reports to be made available.
4. During the IDIs with SWD officials, it was observed that since 2016-17 there is a SC/ST helpline (080 22634300/ 22340956) to address queries and clarifications of the beneficiaries regarding the schemes. The helpline is operated by the concerned personnel working at the SCSP-TSP Cell, Department of Social Welfare, Kalyan Kendra, Nrupatunga Road, Next to Reserve Bank of India, Bengaluru -560001. According to the concerned personnel, on an average of 50-70 grievances are reported to the helpline. Most of these calls are pertaining to the queries related to schemes that are related to individual beneficiaries (for instance, issues related to scholarships, KPSC and UPSC, inter-caste marriages) rather than community-oriented schemes (for instance, Namma Grama Namma Raste Scheme (NGNRY), Swacha Bharat Mission, Ganga Kalyana). These calls are periodically updated in Google forms that are accessed by the senior officials of the department only. The immediate response of the concerned personnel to the queries is to engage in a conference call(s) with the official at the taluka/district level. The details of these calls are updated on the SCSP-TSP Cell's official WhatsApp group.

5. 74.5 per cent of the SWD personnel opined that there has been an overlap over the SCSA/TSA scheme with the pre-existing general schemes.
 - a. One of the personnel opined that there should be a provision to enhance convergence between the SWD, and ZP/ GP. Such a mechanism would enhance the consultative process, aid in making time-bound decisions, and transparency in administration.
 - b. Few of the personnel also articulated that the implementation and completion of works has been affected due the delay in fund release and appropriate government orders. This has led to works that are incomplete and are under progress despite the scheme was announced in 2014.
6. All the personnel mentioned that they did not receive any complaints or queries about the infrastructural works by the beneficiaries. However, it was evident during the FGDs that beneficiaries have often approached the SWD for quick completion of Community Halls or have often voiced out for better maintenance of drains in the colonies. To further substantiate, 27.7 per cent of taluks out of 15 taluks (table 31) have expressed poor opinion about the community hall facility provided in the colonies. And 52.21 per cent of the beneficiaries disagreed (graph 7) with the overall quality and maintenance of the community halls.
7. While the Act specifies that the selection of colonies should be based on habitations having above 70%; above 50% up to 70%; or having below 50 % of SC or ST or combined of SC/STs population; there is a need for utilising general funds and SCSA/TSP funds for colonies where there is less than 50% of SC/ST habitations.
 - a. The need for regular DMCs and periodical needs assessment becomes critical here.
8. As per SCSA/TSP rules, 2017 there is a mandate for ensuring consultations with the beneficiaries regarding identification of works in a colony. During IDIs, especially with district officials of Kalaburgi, Tumkur, and Kolar it was reported that there is no robust mechanism for engaging in such consultations or pursuing need assessments for selection of works. In other words, the process of selection of works is often undertaken on adhoc basis, based on the recommendations of MLAs and other authorities.

9. Most of the personnel articulated the need for standardized protocol and well-defined parameters for third party evaluation must be introduced. Objective evaluation based should include the following parameters: (a) Technical assessment (intended level of implementation, plan and physical scale (size) of the infrastructure; acquisition of land for the project; analysis of terrain conditions; conditions for the provision of services and access to resources; details of construction works; estimated costs for the construction, equipment and operation of the site; adequate management team and workforce); (b) Financial evaluation (cost for construction and operation charges); (c) Economic evaluation (cost-benefit analysis, economic and social development); (d) Environmental assessment (environmental impact assessment).
10. One of the key personnel associated with SWD mentioned that for effective planning, implementation, and monitoring of infrastructural facilities implemented (Cement roads and drainage works) by the PWD department, there is a need a dedicated civil engineering department within the SWD, GoK. Further, in response to the query regarding budgetary allocation and its implementation of infrastructure works implemented by the PWD, one of the concerned personnel informed that cement roads, drainage works are planned and executed together.

Table 35: Draft Framework for third party evaluation

Technical assessment	<ul style="list-style-type: none"> • Design Documents • Ease of Access • Physical scale • Land use • Smoothness • Serviceability • Safety measures • Water Pressure • Leakage issues (Drinking water) • Blockage (Drainage Works)
Financial evaluation	<ul style="list-style-type: none"> • Cost for construction • Cost for operation charges
Environmental assessment	<ul style="list-style-type: none"> • Water quality • Drainage end to end connection • Environmental impact assessment • Land use impact
Economic evaluation	<ul style="list-style-type: none"> • Cost-benefit analysis, • Economic impact analysis (income generation, HDIs, Social wellbeing)
Others	<ul style="list-style-type: none"> • Ethical compliance • Standards compliance • Project management plan • Project Documentation • Progress reports • Stakeholder consultation reports

3.10 Field Observations

1. Tumkur

The beneficiaries in the colonies of Pavagada and Hoskote talukas opined that the Karnataka Rural Road Development agency has done an excellent job in laying cement roads. The cement roads in the colonies have aided in smoother transportation and free flowing of rainwater without any clog.

On the contrary, Megala palya colony people from Pavadaga taluka expressed discontent over the sloppy and poor quality of work. The community hall constructed in the colony had a leaky ceiling and the colony people had collectively approached the department and are awaiting corrective measure.

Source: Primary data collected through FGDs

2. Kalaburgi

Beneficiaries from various other colonies in the district have collectively voiced out the need for construction of community halls. The beneficiaries expressed positive responses about the work and were satisfied with the developmental work. Beneficiaries from the colonies of Hirapura and Basavanagar opined that they had good living conditions, especially after the construction of cement roads and community halls in the colony.

The colony in Kusunur is highly benefitted with the laying of cement roads. The beneficiaries opined that it had improved access and mobility especially for the old, aged individuals and over the years it had aided in reduction of road accidents. However, several of the beneficiaries opined that there is a need for speedy completion of the infrastructural works since it benefits the poorer section of the society and such developmental works also improves their standard of living and social respect.

Source: Primary data collected through interaction and field observation

3. Kyatsandra, Tumkur

The community hall (Ambedkar Bhavan) in the colony is incomplete, the construction activity has been stopped and there is no progress from the past four years. Residents of the colony expressed their dismay against the department, and they mentioned that place has been used by alcoholics and smokers; it has also served as hiding place for thieves and due to this there are instances of robbery in the colony.

The residents articulated that the completion of community hall would aid the poor to conduct ceremonies there and a few residents mentioned that if the community hall is completed, they are willing to use that place to conduct tuitions for the school going children in the locality.

Further the residents mentioned that the colony lacks streetlights, and the roads were laid using cheap raw materials and are of low quality which are often repaired. The colony lack basic facilities, better cement roads and drainage lanes but the colony has continuous supply of drinking water.

Source: Primary data collected through interaction and field observation

4. Belagavi

Community halls as epicentre of socio-cultural exchange in colonies of Raibagh and Chikkodi. It could be observed from table no. 17 that the index scores for socio-cultural exchange is 3.1 and 3.3 respectively for these colonies. Community halls are used for purposes of marriages, celebrating jayanti's, various programs organised by government, to organise training programs for women who are part of self-help groups, and children of the colony use it while they are studying.

In one of the colonies, under Raibagh taluka, it was reported that the community hall has been converted into a temple. The beneficiaries in the colonies opined that they are satisfied with the basic infrastructural facilities. In addition, they also opined that the community halls should have water connection and other facilities.

Source: Primary data collected through interaction and field observation

5. Beranahalli, Tumkur

The beneficiaries mentioned that the colony has facilities like Ambedkar bhavan, cement roads, drainage facilities and the beneficiaries gave a positive opinion of the facilities. They also mentioned that the facilities are effectively used by the people in the colony. They mentioned that the Ambedkar bhavan in the colony is not only used by the SC/ST people, but also by people from other communities for various ceremonies. While such a practice could be considered as an exemplar for intergroup/ community emancipation, on the contrary, a few of the residents of the colony also expressed disappointment that they do not like the bhavan which is reserved for SC and ST being used by people from other communities. A few of the residents also opined that it would be beneficial if separate bhavans are constructed for each community. The beneficiaries opined that the construction of the bhavan has been economically feasible for the beneficiaries in conducting various programs, rituals, and ceremonies in low cost.

The beneficiaries also mentioned that the laying of cement roads had enabled more access to schools, hospitals, eased movement of vehicles, reduced dust and health issues, and the children use the roads to engage in play activities. The drains in the colony are cleaned and maintained locally by the beneficiaries daily. It was also mentioned that the SWD cleans the drains occasionally.

Regarding the drinking water facility, each individual house has a separate tap connection, and each road has a common tap where water is available once in a week. In addition, there is a water filter facility within 2 kms radius of the colony, the residents also use that facility whenever it is necessary. Overall, the beneficiaries mentioned that the facilities are in good working conditions and they feel good about the facilities. Further the beneficiaries also mentioned the benefits of having anganwadi in the village, they further added that the children get good food, and they engage in learning activities. Beneficiaries of the colony also mentioned that the streetlights have been helpful for people to walk around during nights.

Source: Primary data collected through FGDs

Table 36: Comparison matrix of positive and negative cases

Infrastructural	Positive cases	Negative cases
Cement Roads	<ul style="list-style-type: none"> •The beneficiaries in the colonies Kunigal, Muddebihal (Cluster I) and Pavadaga, Mysore, Hunsur (Cluster II) and Sindagi (Cluster III) opined that the department has done an excellent job in laying the cement roads. •The cement roads in the colonies have aided in smoother transportation, access and mobility and free-flowing of rainwater (refer table 13.1 for details on-road utility index) 	<p>Pavagada (Cluster-II): The panchayat member opined that the cement roads laid down by the Karnataka Rural Development Corporation is ‘not used’ by the residents of the colony. Residents of the colony tend to use other pathways; the cement roads have been used as collection zones for waste and transformed as a dump yard. This has affected the hygiene and cleanliness in the colony. The panchayat member was of the opinion that the intended benefit of laying cement roads has not be fulfilled and in addition, the residents of the colony are upset with the Social welfare Department (SWD) for not consulting or taking the opinion of the residents before laying the cement roads. The residents of the colony and the panchayat member articulated that the SWD should take corrective measures to address the issue. Such instances reveal that there have been episodes of violations of the basic norms of the SCSA-TSA Act 2013 (Section-7 of the SCSA/TSA Act details the norms to be followed while indicating the Allocation for SCSA/TSA Schemes)</p>
Drinking Water	<p>The following taluks have reported positively about regarding the connection and access to drinking water:</p> <ul style="list-style-type: none"> • Cluster I (Kalaburgi, Sira) • Cluster II (Ramadurga, Tumkur, Turvekere, Mallur, Afzalpura) • Cluster III (Baihongala, Belagavi, Sindogi, Hunsur) 	<p>Tiptur (Cluster-III): Personnel, SWD opined during the interview that the issue of delays in government orders and release of funds has affected the progress and implementation of infrastructural works in the taluka. He further added that the allocated funds and instructions from the line department was released after one year from the date of allocation orders.</p>

Table 36: Comparison matrix of positive and negative cases

Infrastructural	Positive cases	Negative cases
Drainage Works	None reported	<p>Kolar (Cluster II): Field visits to colonies in Uttanur, Hanumanhalli and others revealed the drainage work was poorly planned and of lower quality. Residents expressed dismay and opined that it is causing health issues due to the blockages in the open drains.</p> <p>Similar problems were recorded across many places like Tumkur (Cluster -II); and Belagavi, Bijapur, Gundlupete (Cluster-III) and others</p>
Community Halls	<p>Tumkur (Cluster II) Ambedkar bhavan in the colony is not only used by the SC-ST people, but also by people from other communities for various ceremonies and events.</p>	<p>Pavagada (Cluster II): Megalapalya colony people in Pavadaga had approached the Social Welfare Department to address the sloppy work done by KRDL. the community hall constructed in the colony had a leaky ceiling and the colony people had collectively approached the department and are awaiting corrective measure.</p> <p>Hunsur (Cluster II): Personnel, SWD during the interview recalled that there was a delay in the completion of construction of community hall due to the interruption by the residents of the colony who demanded for a bigger community hall. This emphasizes the role of community involvement in the process of planning and implementation.</p>

Source: Primary data

Note: The cases mentioned in the table are representative from the sample taluks.

4. Recommendations

4.1 Short-term Recommendations

1. The SC/ST colony infrastructural facilities scheme in its current form can be linked to other schemes like Rural Water Supply Scheme and Grants for Urban Water Supply Scheme for providing drinking water; Namma Grama Namma Raste Scheme (NGNRY) for laying roads; Trainings and courses-Mountaineering, Pilot license, fitness training and Skill Development Training under Skill Development Mission-community halls or Samudaya bhavans could be used for training purposes; and Development of SC/ST colonies scheme for overall development of the colonies. DMCs must address such convergence and discuss such issues in the DMCRs.
2. To ensure intended outcomes and transparency in the implementation of infrastructure projects, the SWD should evolve guidelines for ensuring annual social audit of infrastructure works under the SCSA/TSP scheme. Under the social audit, the beneficiaries, along with representatives of the department personnel, could assess the progress of the work and its quality. The social audit could be linked to the existing directorate under the MGNREGA.
3. More than 50 per cent of the beneficiaries have expressed their dissatisfaction over the quality and maintenance of community bhavans. The Nodal agency in consultation or collaboration with implementing agency or local authorities shall outlay a dedicated fund and conduct periodical assessment of quality and maintenance of community bhavans.
4. Majority of the beneficiaries suggest that the works identified under the infrastructure scheme needs to be revisited/changed. There is a need to consult the beneficiaries to identify their needs before sanctioning and implementing works. A needs assessment should be undertaken by the nodal department and the local authorities to prioritize the needs of the beneficiaries to bridge gaps in development.
5. A detailed five-year action plan must be prepared to implement the schemes under the SCSP/TSP. These action plans must consider the need for infrastructure facilities across colonies which should be periodically procured from respective agencies/personnel involved in planning, implementing, and monitoring the schemes.

These action plans must make provisions to utilise funds under SCSP, TSP and other funds in colonies with SC/ST population of less than 50%.

6. Periodically identify the gaps in development that contribute to human development at the taluka and district level, District Human Development Reports once in five years would aid in estimating development gaps among the beneficiaries.
7. A robust Fund Monitoring System (FMS) which helps to monitor the SC/ST funds allocated and expenditure to the departments must be initiated. This will ensure that the allocated funds will reach the SC & ST beneficiaries correctly and in-time. To this end, there is a need to classify all schemes and sub-schemes pertaining to SC & ST at the national/state level. The details of the works and beneficiaries for all the SC/ST schemes should be uploaded in the application by the respective departments.
8. Need for an integrated and centralized online monitoring system to collate data from villages, taluks, districts, and divisions to ensure real-time status-update of each of works under the respective schemes and departments. Each of the data points reported must be linked with GPS enabled systems, especially for infrastructure works, for the authenticity of the work and for real-time monitoring.
9. Signboards with details of the works, the scheme(s) along with contractor's and nodal officer's contact details, SCSP-TSP cell helpline number along with the date of commission and completion of the work to be made mandatory.
10. According to the evaluation study, drainage works undertaken under the infrastructure facilities scheme have had an impact on the living environment of and general wellbeing of the beneficiaries. However, majority of the respondents, especially in districts (Chamarajanagar, Belagavi) have been exposed to various health and unhygienic living conditions due to incomplete or no drainage facilities. There is a need to provide end-to-end drainage facilities and identify the need for such facilities by the nodal department.
11. From the observation from the field and the FGDs, the process of selection of works across is mostly on an ad-hoc basis. The action plans should lay out the requirement of the schemes based on beneficiaries need and sanction the works under the scheme.
12. The District Monitoring Committee (DMC) should provide a detailed district monitoring report on the status, quality, and outcome of the works across taluks.

Currently, the reports are merely minutes of the meeting and financial statement of the works done. The respective District Social Welfare Officer must be held responsible to conduct DMC meetings and its reports.

13. The tendering processes especially for infrastructure-related works should be competitive basis. For instance, assessment of the quality of work by the contractor of works in other colonies should be an important criterion for the shortlisting the agency.
14. A detailed annual report of the nodal department and concerned departments should be prepared and placed before the Legislative Assembly and State Council. The annual report should be validated by DMC.
15. As part of the SC/ST colony infrastructural facilities scheme(s) under the SCSA/TSA the works that have been implemented in most of the colonies have not been maintained properly. Maintenance of the works should be made mandatory as part of the scheme and allocation of the works by the SWD.
16. The principle of rewards and penalty must be built in as part of the execution of works. During the fieldwork, some of the SWD personnel and beneficiaries expressed that certain contractors perform better than others; incentivizing them would be a good measure of recognizing and replicating such works.

4.2 Long-term Recommendations

1. The performance of the SC/ST colony infrastructural facilities scheme will be more effective if there is a robust strategy to enable interdepartmental convergence to identify, implement and evaluate the schemes and its impact on the beneficiaries. With multiple agencies/departments associated with a scheme, has resulted in a lack of accountability, leading to delays or incomplete or low-quality of works. For instance, departments like Planning, and Statistics, Public Works, Rural Development and Panchayat Raj, Urban Development (drinking water and underground drainage), and Transport department (planning road connectivity form colonies to main roads) could engage in inter-departmental planning and execution of schemes.
2. Funds for effective utilization of Samudaya Bhavans/Community Halls to engage in skill/vocation training can be sourced from various state and national programs/schemes (For instance, departments of higher education, youth

empowerment, skill development, and labour), in addition to Sub-plan. Corporate Social Responsibility (CSR) funds can be considered for providing facilities, training, and awareness programs at the Samudaya Bhavans/Community Halls.

3. Department must take appropriate measures to ensure the continuous supply of quality drinking water by providing mini-mineral water plants and hygienic miniature tanks as part of the scheme to the SC/ST colonies. In the present study, the beneficiaries expressed average satisfaction over the water infrastructure and the indicator for continuous water.
4. The Nodal Departments shall set up district level Grievance Redressal Cell (GRC) in all the districts in the office of District S C Sub-Plan Officer and District Tribal Welfare officer.
5. There shall be an Ombudsman as Appellate Authority under grievance redressal system appointed by the Governor in consultation with State Government with necessary support staff to enquire into the complaints relating to SCSP/TSP implementation.

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Annexure 1: Terms of Reference of the Study Report

Terms of reference for the Study

Evaluation of the performance of SC/ST colony Infrastructural facilities scheme under SCSA/TSA for the period of 2014-15, 2015-16 and 2016-17

1. Title of the study;

Evaluation of the performance of SC/ST colony Infrastructural facilities scheme under SCSA/TSA for the period of 2014-15, 2015-16 and 2016-17

2. Departments implementing the scheme:

The scheme of colony development is being implemented by the departments of public works, RDPR, Major Irrigation and Social Welfare

3. Background and context:

India is a welfare State, committed to the welfare and development of the people and of vulnerable sections in particular. The Constitution of India compels both Central and State Governments to bring all the socially and economically deprived society on par with the privileged society through process of equitable development and empowerment. The social justice and empowerment of all social groups is enshrined in the constitution must be achieved with effective ways of ensuring equal rights, opportunities, access to services, benefits and resources of the government to enable them to develop their potential and capacities as agents of social change for their upward economic and socially mobility.

Government has taken several steps for framing appropriate policies needed to design and implement various welfare programmes for achieving the objective of creating favourable environment to ensure speedy socio economic development of SCs/ STs. For the well being of these communities, special target-oriented programmes are being implemented by earmarking funds, providing subsidies, offering reservations in employment and educational institutions etc. According to the 2011 Census, the population of Scheduled Castes in India is 2013.7 Lakhs and it forms 16.6 percent of total population. In Karnataka, the SC population is 104.75 lakhs and it forms 17.15 percent of total population. The ST population at all India level is 1042.8 lakhs and it is 8.6 percent of total population. In Karnataka, the ST population is 42.5 lakhs and it is 7 percent of total population. The SC/ST population forms about 24.15 percent of the total population in the State.

Table 1 : District wise SC and ST Population in Karnataka

Sl. No.	District	Total Population	SC Total	SC (%)	ST Total	ST (%)	SC+ST
1	Bagalkot	1889752	319149	16.89	97203	5.14	22.03
2	Bengaluru	9621551	1198385	12.46	190239	1.98	14.44
3	Bengaluru Rural	990923	213700	21.57	52903	5.34	26.91
4	Belgaum	4779661	577418	12.08	297198	6.22	18.30
5	Ballari	2452595	517409	21.10	451406	18.41	39.51
6	Bidar	1703300	399785	23.47	235822	13.85	37.32
7	Chamarajnagar	1020791	259445	25.42	120219	11.78	37.20
8	Chikkaballapur	1255104	312565	24.90	156487	12.47	37.37
9	Chikkamagaluru	1137961	253651	22.29	44970	3.95	26.24
10	Chitradurga	1659456	389117	23.45	302554	18.23	41.68
11	Dakshina Kannada	2089649	148178	7.09	82268	3.94	11.03
12	Davanagere	1945497	392595	20.18	233112	11.98	32.16
13	Dharwad	1847023	177855	9.63	87548	4.74	14.37
14	Gadag	1064570	174196	16.36	61654	5.79	22.15
15	Hassan	1776421	345031	19.42	32329	1.82	21.24
16	Haveri	1597668	219976	13.77	141380	8.85	22.62
17	Kalaburagi	2566326	648782	25.28	65259	2.54	27.82
18	Kodagu	554519	73584	13.27	58054	10.47	23.74
19	Kolar	1536401	465867	30.32	78875	5.13	35.45
20	Koppal	1389920	258608	18.61	164271	11.82	30.43
21	Mandya	1805769	265294	14.69	22402	1.24	15.93
22	Mysuru	3001127	536643	17.88	334547	11.15	29.03
23	Raichur	1928812	400933	20.79	367071	19.03	39.82
24	Ramanagar	1082636	203819	18.83	22946	2.12	20.95
25	Shivamogga	17522753	308158	17.58	65412	3.73	21.31
26	Tumakuru	2678980	506901	18.92	209559	7.82	26.74
27	Udapi	1177361	75429	6.41	52897	4.49	10.90
28	Uttara Kannada	1437169	116431	8.10	34239	2.38	10.48
29	Vijayapura	2177331	442773	20.34	39314	1.81	22.15
30	Yadgir	1174271	273315	23.28	146849	12.51	35.79
	Karnataka	61095297	10474992	17.15	4248987	6.95	24.10

Source: Census 2011

Government Interventions

Many schemes have been introduced since independence to promote economic, social and political empowerment of these marginalised communities. Special Component Plan (SCP) and Tribal Sub-Plan (TSP) were initiated by government as intervention strategies during seventies to cater exclusively to Scheduled Castes (SC) and Scheduled Tribes (ST) respectively. Such plans are meant to ensure benefits to these special groups by guaranteeing funds from all related development sectors both at State and Centre in proportion to the size of their respective population. Government of India also extended Special Central Assistance (SCA) to states and UTs as additive to SCP and TSP. (Ministry of Social Justice & Empowerment provides 100% grant under Central Sector Scheme of SCA to SCP as additive to SCP to States/UTs).

TSP approach envisages integrated development of tribal areas wherein all programmes irrespective of source of funding operate in unison to achieve the goal of bringing (tribal) area at par with rest of the State and improve quality of life of tribals. It is geared towards taking up family oriented income generating schemes, elimination of exploitation, human resource development through education & training and infrastructure development. TSP programmes are financed from (a) TSP funds from State /U.T Plans and Central Ministries/Departments, (b) Special Central Assistance (SCA) to TSP (c) Funds through Central Sector Schemes/ Centrally Sponsored Schemes and (f) Institutional Finance.

The nomenclature of SCP has since been changed to Scheduled Castes Sub-Plan (SCSP) on the lines of TSP. The strategy of SCSP consists in important interventions through planning process for social, educational and economic development of Scheduled Castes and also for improvement in their working and living conditions.

Guidelines issued by Planning Commission for formulation, implementation and monitoring of SCP and TSP emphasize, inter-alia, on earmarking funds towards SCP and TSP in proportion to population of SC and ST respectively, creating dedicated unit for proper implementation and separate budget-head/sub-heads for making funds non divertible and approval for plans of Central Ministries/Departments/State Governments being conditional on adherence to implementation of SCP and TSP. Ministry of Social Justice & Empowerment and Ministry of Tribal Affairs periodically review and monitor SCP and TSP respectively.

Scheduled Castes Sub Plan and Scheduled Tribe Sub Plan was evolved with a view to expedite socio-economic development of the Scheduled Castes and Scheduled Tribes. The Sub Plan is not a scheme by itself, but it is an umbrella under which schemes implemented by State and Central Government are dovetailed by apportioning funds exclusively for Scheduled Castes and Scheduled Tribes for addressing their needs and problems. SCSP&TSP is thus, a plan within a plan, where each Department formulates need-based programmes to effect direct flow of benefits to Scheduled Castes& Scheduled Tribes through family and individual oriented programmes as well as benefits of the services like provision of drinking water, health services, irrigation, roads & bridges etc. It is an observed phenomenon that the ancient social customs have forced these people to live in separate hamlets, known as S.C.

localities, Tandas situated outside but adjoining the village. Most of these localities lack basic amenities like drinking water, street lighting, drainage, link roads, primary health care and schools etc. Therefore, a systematic effort to provide these facilities in these localities has been started since the Seventh Plan period.

The Karnataka Scheduled Castes Sub Plan and Tribal Sub Plan (planning, Allocation and Utilization of Financial resources) Act-2013

The Government of Karnataka enacted “The Karnataka Scheduled Castes Sub Plan and Tribal Sub Plan (planning, Allocation and Utilization of Financial resources) Act-2013” to provide for earmarking a portion of state plan outlay for the Scheduled Castes Sub plan and Tribal Sub-Plan in proportion to the population of Scheduled Castes and Scheduled Tribes and to put in place an institutional mechanism for preparation, implementation and monitoring of sub plan and for matters connected therewith or incidental thereto

The Act came into implementation from FY 2014-15 and the Government is making budget provision as per the ACT. Therefore the allocation for the development of SC/STs has been increasing every year and also utilization of the allotted funds.

The Karnataka Scheduled Caste Sub Allocation and Tribal Sub-Allocation (Planning, Allocation and Utilisation of Financial resources) Rules 2017 were enacted for effective implementation of the programmes for the welfare of Scheduled Caste and Scheduled Tribe in the State (No. SWD 167 SLP 2017(P1) Bengaluru Dated 2/8/2017)

Choice of Schemes under the Act (2013) & Rules 2017

- i. The schemes that have the potential to accelerate the pace of development of the SC STs and to bridge the gap in socio-economic development indicators between SC STs when compared to the other sections of the society.
- ii. The schemes should secure quantifiable benefits to the scheduled caste and scheduled Tribe households or are beneficial to locations largely inhabited by inhabited by the scheduled castes.
- iii. Those schemes should be included in the SCSP that enhance the income of the target group and lead to the development of assets such as those related to sectors like agriculture, animal husbandry, dairy development, fisheries, and Agriculture/allied sectors.
- iv. The States should give priority to such schemes which provide basic minimum services like primary education, health, drinking water, nutrition, rural housing, and link roads and electrification to SC ST colonies and Villages.

The Nodal Department will consult the representatives of various Organizations, of SC& ST before finalising the proposals. It will also invite proposals/ suggestions from District monitoring Committees who in turn consult the District Level Organizations of SC/ST communities.

There are two aspects of the flow of resources for the SCSP and TSP Sub-Plan. Firstly, the direct flow of resources through family and individual oriented programmes aimed at economic development. Secondly, the flow of resources to the programmes for Scheduled Caste people through provisions of services, infrastructure and other facilities.

Thus under community development schemes under the SCSA/TSA (earlier SCSP/TSP) the funds are provided for development of SC/ST colonies located in the villages/towns to the above said Departments. The nature of works are-

- i. Laying of cement roads in the colony of SC/ST
- ii. Drainage works
- iii. Community Bhavans in the name of Dr. B.R. Ambedkar and Dr: Babu Jagjivan Ram, Maharshi Valmiki, etc,
- iv. Short distance approach/connecting roads.

Objectives of the Colony Development Scheme

1. To provide the benefits of the services like provision of drinking water, health services, irrigation, roads & bridges etc. to the residential areas of SC/ST people and the areas where they live in majority.
2. To provide better living environment to the people residing in these colonies.

Monitoring arrangements for the effective implementation of the scheme

a. District level Monitoring committee.

District Monitoring committee under the Chairmanship of D.C of the District. This committee reviews the progress of the Schemes implemented by the Departments.

b. Nodal Department:-

Social Welfare Department is the Nodal Department for implementation of the Schemes. The District Joint Directors/Deputy Directors of Social Welfare Department are monitoring officers at the District Level as Member Secretaries of DMC.

c. Nodal Agency

This headed by the Hon'ble Minister for Social Welfare is the Monitoring and reviewing authority at State Level.

d. State Council

This Council is headed by the Hon'ble Chief Minister, is the overall authority to approve Action Plans and review implementation.

e. Implementing Departments:-

District Level Officers of PWD/RDPR (Engineering Division) Irrigation Department (Krishna Bhagya Jal Nigam/Cauvery Niravari Nigama/Karnataka Niravari Nigam and CADA Development Authority, etc.)

The financial progress achieved during 2014-15, 2015-16 and 2016-17 is given below

Table 2 : Progress of the Scheme

Year	Amount allocated			Amount spent Rs in crores		
	SCSP	TSP	Total	SCSP	TSP	Total
2014-15	11518.99	4315.18	15834.17	10163.93	3834.41	13998.34
2015-16	11773.54	4582.72	16356.26	11259.48	4344.90	15604.38
2016-17	14253.26	5631.67	19884.93	12998.37	5102.30	18100.67
Total	37545.79	14529.57	52075.36	34421.78	13281.61	47703.39

Source: Dept. of Social welfare

4. Evaluation Scope, Purpose and Objectives:-

The evaluation of works is to be taken in all the 30 districts of the State. In the first phase of evaluation, the following 8 districts are selected randomly from the four divisions in the State by the Department. Two districts are drawn from each division. Therefore, the scope of the study covers the following districts.

Table 3 : Divisions and Districts

Division	District
Belagavi	Belgaum
	Bijapur
Bangalore	Kolar
	Jamkandi
Kalaburgi	Kalaburgi
	Raichur
Mysore	Mysuru
	CR Nagar

The Evaluation of the works executed through PWD and Social welfare Departments during the period from 2014-15 to 2016-17 are taken up for evaluation. Districts wise details are given in Annexure-1

- The study covers the following issues:-
 - ❖ Functioning of various committees
 - ❖ Process of selection of works
 - ❖ Coverage of Colonies
 - ❖ Implementation of works-types of works executed
 - ❖ Execution of works-Methods
 - ❖ Status and quality of works
 - ❖ Impact of the works on the individual and community life of the people.

The number of completed works during 2014-15 till 2016-17 in the eight districts is given below

Table 4 : Works completed and Expenditure 2014-15 to 2016-17

Year	2014-15	2015-16	2016-17
No of completed works	1208	1885	1414
Total amount spent Rs in crores	14138.27	24934.8	20370.78

Source: Dept. of Social welfare

Purpose of the study

It is observed from the table above that, the amount spent on development of colonies under the scheme is increasing phenomenally year after year clearly indicating the importance attached by the GOK to the scheme and also demand from the beneficiaries for the same. Till 2016-17 a record amount of Rs 47703.39 crores has been spent for construction works in the colonies, covering construction of C C roads, Ambedkar Bhavans, Babu Jaga Jeevan Ram, Maharshi Valmiki Community Bhavans, Drainage works and connectivity works. Hence it is proposed to conduct an evaluation of the implementation of the scheme with the broader objectives of understanding its impact and also take up mid course corrections if any in the scheme for strengthening its implementation and enhancing the outcomes.

Objectives of the Evaluation Study

- ❖ To study the process of selection of colonies and schemes and participation of the organizations and people in the selection of the activities for colony development.
- ❖ To assess the impact on the living environment of the residents in the SC/ST colonies and surroundings.
- ❖ To make a comparative analysis of the performance of the scheme across all the divisions and sample districts.
- ❖ To what extent the Community halls are used for social and cultural integration of Community. What is the response of field level rural people for this work?
- ❖ To examine as to what extent the convergence of other departments like PWD/RDPR Engineering division and Irrigation departments has taken place.
- ❖ To understand the awareness level of beneficiaries about SCSA/TSA

- ❖ To evaluate the deficiencies in implementation of the scheme (Related to Quality/ Quantity and methodology)
- ❖ To study non coverage colonies in the district.

5. Evaluation questions – Inclusive and not exhaustive

1. What are the Schemes taken up under the programme in the State vis-a vis in other States or at National level? What is the impact of these schemes elsewhere? Give a comprehensive review of literature.
2. Are there any norms followed for distribution of funds across individual, family and community development schemes. Whether the departments have ensured coverage of the Scheduled Castes or the Scheduled Tribes in the ongoing general schemes consistent with their eligibility for the same under infrastructure development for the general communities. **Whether the development gap with regard to infrastructure facilities is estimated?**
3. Whether the process of selection of proposals is as per the Act of 2013? Are there any Deviations? Whether the Action Plans are approved by the State Council? Examine the issues related to transparency
4. How the funds are allocated under the programmes over the time period? What criteria are followed for distribution of funds across the Departments and regions? How the works are selected under the sub plans? Whether needs are prioritised through a consultative process?
5. What is the percentage of works selected in different SC ST habitations
 - i. 100% SC/ ST or combined habitations
 - ii. 75% & above SC/ ST or combined habitations
 - iii. 50 %-75 % SC/ ST or combined habitations
 - iv. Less than 50% SC/ ST or combined habitations
6. Whether the monitoring process is functioning effectively? Review the functioning of District level Monitoring committees? Make an assessment of their functioning across the districts and divisions.
7. What is the proportion of works under the four categories in the total works across the districts and divisions? Is there any proper justification for taking more works

under a particular category? Whether any saturation of works in colonies has taken place?

8. Examine whether fund allocation and expenditure takes place as per these guidelines and communicated to the concerned departments for the preparation of action plans.
9. **Whether the Scheme has helped to reduce the infrastructure gap among SC/ST colonies and other colonies in the village? What is its impact on human development indicators? Examine it from the sample data.**

Technical aspects of the works carried out

10. Whether the works are carried out as per the standard norms? Whether the length, width and depth of the roads are as per the prescribed norms? Whether the buildings are constructed as per the standard norms?
11. Whether the works are tendered? Whether there are any complaints received about the tendering, work allocation processes etc.
12. Whether works are completed on time? If delayed what are the reasons for the delay? Analysis is to be based on the following table.

Name of the work	Starting date	Closing date	Handed over date	Name plate Yes/No	Remarks

13. Whether the beneficiary selection norms stipulated under scheme has been scrupulously followed. Are there any deviations? If yes what are those deviations and to what extent/ Discuss in detail the reasons for such deviations.
14. Whether the prescribed quality standard materials have been used for laying cement roads? Drainage works, short distance approach roads whether any changes in the materials and type of construction is desirable? If so details may be provided in respect of
 - (a) Cement roads
 - (b) Drainage works
 - (c) Community Bhavans

(d) Short distance approach roads

15. During the implementation periods under reckoning i.e 2014-15 till 2016-17 whether the amount prescribed under the scheme for different works was adequate and released as per the time schedule? If not which are major components of cost inadequacy and irregularity?
16. Evaluate the quality of the above works for first year/ second year where scheme has been implemented in 2014-15-2016-17. Discuss the findings where short comings are noticed and give suggestions

Beneficiaries- (Analysis across the divisions and districts)

17. Whether the residents know the details about the scheme:
 - (a) Do they know who the recommending authority is?
 - (b) Sanctioning Authority & Executing authority.
 - (c) Participation levels of beneficiaries-planning, involved in consultation, after starting, after completion
18. What was the mode of drainage system before implementing the scheme?
19. What were the usual diseases of the people in colony due to storing of drainage water? (a) TB (b) Malaria (c) encephalitis d) diarrhoea e) other diseases whether they are reduced now/? Whether the child survival rate has increased in the colony?
20. Was there any dirty smell due to storage of drainage water? How was the menace of mosquitoes and flies? Whether it is reduced now. Whether dust pollution is reduced and the environment is clean now? Whether it is well maintained now?
21. Whether the laying of cement road had helped easy movement of bullock carts, cycles, two wheelers and 4 wheelers. Whether the access to health facilities and education facilities has increased? Whether Infant and maternal deaths are reduced?
22. Whether the laying of cement roads and drainage work in the colony is completed and the full colony is covered? Whether road is also used for drying of Ragi, Paddy,Pulses and oil seeds etc.
23. Whether Dr.B.R.Ambedkar/ Dr.Babu Jaga Jivan Ram/ Maharshi Valmiki Bhavans (Samudaya Bhavans) construction is completed or not? How many Samudaya Bhavans are incomplete? Whether the community Bhavan are utilised for social get together or not? How frequently they are used? In a year how many programmes are held? If misused for what purpose?

24. Whether the community hall is kept clean and all facilities like kitchen, Dining hall, Toilets, permanent water facility are made? Who is maintaining them and who is the custodian of these Halls?
25. How the people feel about the new facilities created in the colony? Has it increased the social status of the people? Has it improved their perceptions towards life and well being?
26. Whether the scheme should be continued? If to be continued in the existing form or a revised form?

Evaluation Questions pertaining to Government Departments

To have a fair understanding of various aspects connected to the formulation and implementation of the scheme, it is necessary to obtain and analyse the feedback/views from the implementing officials. a) Feedback from District level office. (b) Feedback from Taluk level office c) Feedback from Panchayat Officers The information is to be sought on the following issues:

27. Any convergence has been affected in scheme implementation from departments like PWD/RDPR?
28. What is the progress achieved with percentage completion of physical targets and financial targets to total target allocated in 8 Districts as per the available data for the years 2014-15, 2015-16 & 2017-18. What are the reasons for poor performance if any?
29. What factors contributed for reasonably good performance of above 60% in some districts? What lessons can be drawn from these better performing districts with regard to the execution strategies adopted for future guidance? Whether any rewards are given for Best works as per the guidelines?

6. Evaluation methodology

The data required for the study is indicated below

Type of data	Method of data collection	Source of information	Method and Tools
Primary data	1. Quantitative data	Beneficiaries, non-beneficiaries.	Survey, Observations
	2. Qualitative data	Beneficiaries, non-beneficiaries.	FGD,
		State level, district level, taluk level, GP level, Bank officials	IDI-interview schedules

Secondary data	Data from the department, annual Reports	Department levels district and taluka levels.	On selected indicators relevant for the evaluation
Analysis of increased access to education, health and livelihood opportunities due to availability of infrastructure facilities and its impact on human development indicators in terms of increased enrolment, improved health status and standard of living.			

The sampling design is based on stratified multi stage Random Sampling. Works undertaken in all the districts will be evaluated in a phased manner. In the first phase two districts from each division are selected on random basis. The works undertaken in these districts and the sample are given below.

Table 5 : No of Sample works selected across the districts

Districts (Talukas)	2014-15		2015-16		2016-17	
	Total works	Sample	Total works	Sample	Total works	Sample
Belagavi (10)	134	45	189	46	163	50
Vijayapura (5)	47	16	71	17	67	20
Raichur (5)	87	30	105	25	73	22
Kalaburagi (7)	120	40	195	47	143	45
Tumkur (10)	269	90	442	107	309	92
Kolar (5)	345	114	599	145	451	135
Mysuru (7)	113	38	142	35	109	33
Chamarajnagar (4)	93	31	142	35	99	30
Total 8 (53)	1208	404	1885	457	1414	427

Sample at 95 %confidence interval & 4% margin of error

- ❖ Total Sample works -1288
- ❖ The sample to be proportionately distributed
- ❖ Across the talukas such that every taluka in the district to be covered at least once during the study period. and
- ❖ Among different SC/ST habitations (%)
- ❖ Across the categories of works- CC Roads, Samudaya Bhavans, Drainage, connectivity.

Study of control Group

Assessment of the status of non beneficiaries control group those who are eligible under the scheme but could not be selected due to limited target. This will help to have better assessment of the overall impact of the scheme for this purpose the sample of non-beneficiaries under the scheme is to be selected in each taluka to the extent of 1% of beneficiaries

Table-6 Qualitative data

<p>FGD 53 +8+ 4=65</p>	<p>1 @ each taluka level 1@each district level 4 FGDs with SC ST organizations in four divisions</p>	<p>Covering beneficiaries and non-beneficiaries, Stakeholders at State, District, Taluk levels</p>
<p>IDI =61 +18 = 80</p>	<p>1 @ each taluka level officer 1@each district level officer 1 member -District level monitoring Committee (8) 3 officers of concerned Dept. RDPR & PWD, Irrigation. 3 Officers of Nodal Department 2 members from Nodal Agency 2 members from State Council</p>	

7. Deliverables and time schedule

Commissioner for social welfare/Director Social welfare Bangalore to issue necessary instructions to all the District officers of the departments concerned to provide required information including the detail list of beneficiaries that is addresses of SC/ST colonies and to extend necessary support to the external Evaluation Consultant Organisation (ECOs) in completing the study in time. The required information on beneficiary SC/ST colonies guide lines and Government orders issued regarding the scheme and its implementation shall be made available by Social Welfare Department at different levels like Districts Talukas to the evaluation consultant organisation however it is the responsibility of the selected external consultant evaluation organisation to make necessary co-ordination follow up with all concerned to obtain all relevant information and assistance and ensure completion of the

study of the project and final submission of the report as per the stipulated time schedule. The whole study is to be completed within 6 months from date of getting confirmed evaluation assignment. The evaluating agency is expected to adhere to the following time lines and deliverables

Table -7 Deliverables and time schedule

1. Work plan submission/Inception report	:One month after signing the agreement
2. Field Data Collection	: Two-three months
3. Draft report submission	: One month after Field Data Collection
4. Final report submission	: One month after Draft report submission
5. Total Duration	: 6 Months

8. Qualities Expected from the Report

The evaluation report should generally confirm to the United Nations Evaluation Guidelines (UNEG) "Standards for Evaluation in the UN System" and "Ethical Standards of Evaluations".

- a) The results should correspond to the ToR. In the results chapter, each question of the ToR should be answered. The overall results to be analysed in an integrated way to draw the conclusions.
- b) The report should be complete and logically organized in a clear but simple language. Evaluation report should confirm to the standard report writing style and structure.
- c) The report should present a comprehensive review of the Scheme/ programme in terms of the content, implementation process, adequacy, information and access to beneficiaries.
- d) The Report should provide a scientific assessment of the impact of the scheme on access to the infrastructure and livelihood conditions of these people. . The qualitative data should be used in an unbiased manner to support or for further analysis of and reflections from the quantitative data. The analysis should provide adequate space for assessing the variations across the regions and categories. Case studies to be presented to bring out the realities at the local level.
- e) With regard to recommendations, the number of recommendations is not a measure of the quality of evaluation. The report should come out with specific recommendations based on adequate field evidence for any modifications in the programme design, content, implementing procedures, and any other modifications to improve the access and impact of the Scheme/Programme. The recommendations

should be short term to bring in mid course corrections and the long term to bring about modifications/ change in the policy.

Structure of the report

The following are the points, only inclusive and not exhaustive, which need to be mandatorily followed in the preparation of evaluation report:

By the very look of the evaluation report it should be evident that the study is that of Social welfare Department and Karnataka Evaluation Authority (KEA) which has been done by the Evaluation Consultant Organization. The report should be complete and logically organized in a clear but simple language. Besides conforming to the qualities covered in the Terms of Reference, report should be arranged in the following order:

1. Title and Opening Page
2. Index
3. List of acronyms and abbreviations
4. Executive Summary- A stand alone section that describes the program, purpose and scope of evaluation, research design and methodology, key findings, constraints and recommendations.
5. Background- A section that briefly covers the history or genesis of the sector under which the programme/scheme being evaluated covered. It should give recent fact sheets taken from reliable and published sources.
6. Objectives and performance of the program being evaluated- This section will include the stated objectives of the programs and the physical and financial achievements of the selected program in the period of evaluation. It should cover the description of the target group, aim of the program and method of selection of beneficiaries.
7. Review of literature/past evaluation reports.
8. Evaluation Methodology - This should include research design, sample design and size, questionnaire design and pilot test, data collection and quality assurance plan.
9. Findings of the evaluation study.
10. Case Studies, Best Practices
11. Limitations/constraints in the evaluation study.
12. Recommendations that flow from the evaluation.

Annexures

1. Sanctioned Terms of Reference of the study.
2. Survey tools and questionnaires
3. List of persons interviewed.
4. Place, date and number of persons covered by Focus Group Discussion.
5. Additional documents
6. The cover page

9. Administrative arrangements:

Qualifications of Core Team

External consultant Evaluation Organisation should have and provide details of evaluation team members having technical qualifications/capability/experience and in the subject field and necessarily include persons with following qualifications.

Table-8 Core Team Requirements

Sl. No.	Subject Experts Requirements	Educational Qualification	Experience in Relevant Field
1	Principal Investigator	PhD / I class Post Graduate in Social Science / Social work/ Public Policy/Civil Engineering	Minimum 05 Years Experience in relevant field
2	First Core Team Member	A Civil engineer-graduate/post graduate.	About 3 years of experience in the relevant field
3	Second Core Team Member	M.Sc Statistics M A Economics with necessary knowledge in data analysis.	Minimum of 2 years experience in data handling and analysis.

10. Cost schedule of budget release

Output based budget release will be as follows

1. The first instalment of consultation fee amounting to 30% of the total fee shall be payable as advance to the consultant after the approval of the inception report, but only on execution of a bank guarantee of a scheduled nationalised bank, valid for a period of at least 12 months from the date of issuance of advance
2. The second instalment of consultation fee amounting to 50% of the total fee shall be payable to the consultant after approval of the draft report.
3. The third and final instalment of consultation fee amounting to 20% of the total fee shall be payable to the consultant after the receipt of the hard and soft copies of the final report in such format and no prescribed in the agreement along with all original documents containing pay and secondary data, processed data outputs study report and soft copies of all literature used in the final report.
4. Taxes will be deducted from each payment as per rates in force. In addition the evaluating agency/ consultant expected to pay service tax as their end


11. Selection of Consultant Agency for Evaluation:


The selection of evaluation agency should be finalized as per provisions of KTPP Act and rules without compromising on the quality.


12. Contact person for further details:

Contact Person from the Dept. Smt. Urmila, B JD Social Welfare Dept. urmilashivarama@gmail.com & Ramkrishna Bhat Social Welfare Dept. Mobile- 9844718974

Nodal Officer KEA Shri M Ranganna e mail: conpkea@karnataka.gov.in Mobile: 9901174915


ಅಯುಕ್ತರ ಪರವಾಗಿ,
ಸಮೂಹ ಕಲ್ಯಾಣ ಇಲಾಖೆ,
ಬೆಂಗಳೂರು.


Chief Evaluation Officer
Karnataka Evaluation Authority


Consultant (CED)

Annexure 2: Survey Tools and Questionnaires

Questionnaire for beneficiaries of the colony

Demographic Profile

Name of the respondent:

Gender:

DOB:

Age:

Education:

Occupation:

Marital Status:

Total Family Members:

Caste:

Ethnic Group:

Religion:

Annual family/individual income:

Name of the colony:

Name of the Taluk and District (address):

Development work profile:

**Name of the development work carried out
in the colony**

Start date of the development work

End date of the development work

Status of the development work

- a. Completed**
- b. Incomplete**
- c. Ongoing**

Category: Benefits of Cement roads						
Sl. no	Statements	Strongly Agree	Agree	Neutral (Neither agree nor disagree)	Dis-agree	Strongly Disagree
1	Has the laying of cement roads improved mobility and access among the people of the community					
2	I feel satisfied with the laying of cement roads in the community					
3	The cement roads work and drainage work in the colony has been completed on time					
4	Colony people use cement roads for drying ragi/paddy/pulses/oil seeds.					
5	There were tar roads in the colony before laying the cement road					
6	Laying of cement roads has aided in easy movement of bullock carts, cycles, two and four wheelers.					
7	The laying of cement roads has facilitated /enhanced connectivity and mobility of people from colony to the subsequent areas					
8	The roads are of poor quality and has lot of potholes and patchy areas					
9	Laying of cement roads has helped to reduce maternal deaths					
10	Short distance roads were laid in the colony					
11	Cement roads were laid over the existing tar road.					
12	Laying of cement roads has aided in increased access to hospitals and schools.					
13	Laying of cement roads has helped to reduce infant deaths (due to better access to hospitals).					
14	The roads are constructed with less planning					
15	Improper construction of roads has resulted in accidents and mishaps					
16	The quality of cement roads has been very good					
17	Cement roads were very much needed in the colony					

18	Tar Roads are better than cement roads					
19	Cement roads are well connected across the colony					
20	Short distance roads are helpful					
21	Cement roads were laid in consultation with the people of the colony					
22	Cement roads has aided in mobility of vehicles and people inside the colony					
23	I was aware of the colony development program prior to the introduction of developmental works					

Additional information:**Category: Drainage works and benefits**

	Statements	Strongly Agree	Agree	Neutral (Neither agree nor disagree)	Dis-agree	Strongly Disagree
1	I feel satisfied with the drainage work in the community.					
2	The cement roads work and drainage work in the colony has been completed on time.					
3	The quality of drainage work has been very good.					
4	Storage of drainage water has resulted in the rise of files and mosquitoes.					
5	Every house in the colony has well planned and good drainage facility.					
6	Often, there are blockages in drainage water					
7	The quality of work with respect to drainage is very poor					
8	The department has failed to address the problem of drainage blocks on a timely basis					
9	The houses in the colony have well connected drainage outlet system					
10	The drainage work in the colony was carried on and implementation as per the prescribed requirements					

Evaluation of the Performance of SC/ST Colony Infrastructural Facilities Scheme under the SCSA/TSA for the period of 2014-2015, 2015-2016 and 2016-2017

11	Did your house had drainage connectivity prior to the developmental work					
12	Were you consulted by the department before the initiation of the drainage works					
13	The open gutters are cleaned by the colony members					
14	Open gutters are unhealthy and can cause diseases					

Additional information

Category: Drinking Water Facilities

	Statements	Strongly Agree	Agree	Neutral (Neither agree nor disagree)	Disagree	Strongly Disagree
1	The colony has better drinking water connectivity					
2	Every house in the colony has drinking water facilities					
3	There is a continuous supply of drinking water to the houses in the colony					
4	Drinking water supplied is of good quality					
5	There is an irregular supply of drinking water in the colony					
6	Drinking water is of poor quality					
7	There are instances of ill health due to poor drinking water					
8	Water tanks are cleaned and maintained on a regular basis					
9	The department provided drinking water after the colony people demanded for it					
10	Drinking water is supply once or twice in a week					
11	Every house in the colony has drinking water facility					
12	The drinking water facilities was started and completed on time					

Additional Information:

Category: Community Halls and its benefits						
	Statements	Strongly Agree	Agree	Neutral (Neither agree nor disagree)	Dis-agree	Strongly Disagree
1	The community hall/samudaya bhavans was constructed on time in the colony					
2	The community hall/samudaya bhavan was constructed based on the demand of the people in the colony					
3	The community hall/samudaya bhavan is used only for social and cultural gatherings like festival's, marriage etc.					
4	The community hall/samudaya bhavan is used to provide education and training for youths in the colony					
5	The community hall/samudaya bhavan is off good quality and is well maintained					
6	The Facilities (kitchens, toilets, common area, rooms) in the community halls are hygienically maintained					
7	The community hall is maintained by the respective custodian The community halls are frequently used for cultural and social gatherings					
8	The community halls are used for educational purposes					
9	Community halls are often misused					
10	The infrastructure of community halls is of poor quality					
Additional Information:						

Evaluation of the Performance of SC/ST Colony Infrastructural Facilities Scheme under the SCSA/TSA for the period of 2014-2015, 2015-2016 and 2016-2017

General Health indicators and perceptions						
S.no	Statements	Strongly Agree	Agree	Neutral (Neither agree nor disagree)	Dis-agree	Strongly Disagree
1	Diseases like TB, Malaria, Encephalitis, Diarrhea, etc were common due to storage of drainage water in the colony					
2	Diseases like TB, Malaria, Encephalitis, Diarrhea, etc have reduced after the drainage work in the colony					
3	The infant/child survival rate has increased in the colony after the development works					
4	There has been dirty smell arising from the storage of drainage water in the colony					
5	Storage of drainage water has resulted in the rise of flies and mosquitoes					
6	The pollution in the colony has reduced in the colony after the completion of development works					
7	I am aware of the health schemes/ programs (mention few of them)					
8	The incidence of ill- health across the colony has decreased from past two -three years					
9	Health camps are frequently conducted in the colony					
10	Health workers often visit the colony					
11	Regular vaccinations are given to the colony members by the health department					
12	There are cases of malnutrition in the colony					
Additional Information:						

General Perception towards the infrastructural works by the beneficiaries						
S.no	Statements	Strongly Agree	Agree	Neutral (Neither agree nor disagree)	Dis-agree	Strongly Disagree
1	The people in the colony were consulted before the initiation of the developmental works					
2	The people in the colony were involved in the discussions about developmental works					
3	The people in the colony were informed about the development scheme before it was started					
4	I feel good about the new facilities in the colony					
5	The new works have aided in improvement of your social status					
6	The new works have aided improving the status of women in the colony					
7	The new works have provided better health of women in the colony					
8	The Karnataka scheduled castes sub-allocation and tribal sub-allocation rules, 2017 is a good initiative					
9	Compared to non-SC/ST colonies in the locality, your quality of life has improved as result of the new works					
10	The scheme should continue to work in its current form					
11	I feel that the living standards has improved after the new works being implemented in the colony					
12	The scheme needs to be modified and redesigned in its approach and initiatives					
13	The colony has all the basic amenities in good working conditions					
14	You approached the concerned personnel or the department demanding the need for implementation works related to drinking water) for the colony					
15	You approached the concerned personnel or the department demanding the need for implementation of works related to drainage for the colony					
16	You approached the concerned personnel or the department demanding the need implementation					

Evaluation of the Performance of SC/ST Colony Infrastructural Facilities Scheme under the SCSA/TSA for the period of 2014-2015, 2015-2016 and 2016-2017

	of works cement roads for the colony					
17	The colony is well maintained after the development works					
18	The Karnataka scheduled castes sub-allocation and tribal sub-allocation rules, 2017, will aid in uplifting the social and economic status of the SC/ST families in the state					
19	The development works in the colony was needed and completed on time					
20	The scheme has helped to bridge the infrastructural gap between the colony and other colonies (in comparison with general colonies)					
21	You approached the taluk personnel in demand for development work (drinking water/drainage/cement roads)					
22	The development works has enhanced self-respect of the people in the colony					
23	The personnel will immediately address the problems pertaining to development works on a timely basis					
24	Development works were started and completed within the stipulated time					
25	The sanctioning authority and executing authority had consulted the colony members before the works were initiated (public works department personnel)					
26	The community hall/samudaya bhavan was constructed based on the demand of the people in the colony					
27	The development work was carried on in the colony					
28	The Karnataka scheduled castes sub-allocation and tribal sub-allocation rules, 2017 enables to narrow down the developmental gaps between the SC/ST and general population					
29	Overall, the quality of work of development works in the colony has been very good					
30	The developmental works were carried outside the colony					

OPINION SURVEY (For Beneficiaries)

Note:

1. The following open-ended questions should be used to collect data from beneficiaries only.
2. List of persons with addresses personally interviewed to be collected.

Mode of study: Focus group discussions with the beneficiaries of the colony

1. Whether the laying of cement roads and drainage work in the colony is completed and the full colony is covered? (Details of time frame, completion rate, unfinished work, delayed work, quality of work etc. to be covered)
2. Has laying of cement roads improved mobility and access among the people of the community. If yes, collect in depth details on the purposes of its utility.
3. Do people use road for drying of Ragi, Paddy, Pulses and oil seeds etc.
4. Whether Dr B.R. Ambedkar/ Dr Babu Jaga Jivan Ram/ Maharshi Valmiki Bhavans (Samudaya Bhavans) construction is completed or not? When was it started and completed?
5. How many Samudaya Bhavans are incomplete?
6. For what purposes do people use the community bhavans?
7. Whether the samudaya/community Bhavan are utilised for social get together or not?
8. Whether the samudaya/community Bhavan are utilised to conduct health care/camps and education/training camps or not?
9. How frequently they are used?
 - Once in a week
 - Once in a month
 - Twice in a month
 - Once in two months
 - Once in three months
 - If any, please mention: _____

10. In a year, how many programmes are held?
 11. If misused for what purpose?
 12. How the people feel about the new facilities created in the colony? Has it increased the social status of the people? Has it improved their perceptions towards life and wellbeing?
 13. Has the nodal department conducted field-based surveys to identify the development gaps in the respective region/district/taluka?
 14. Has the nodal department instituted field-based evaluation studies of works bridging the development gaps in the respective region/district/taluka?
 15. Whether the scheme should be continued? If to be continued in the existing form or a revised form?
 16. Whether the residents know the details about the scheme:
 - (a) Do they know who the recommending authority is?
 - (b) Sanctioning Authority & Executing authority.
 - (c) Participation levels of beneficiaries-planning, involved in consultation, after starting, after completion
 17. Whether the Scheme has helped to reduce the infrastructure gap among SC/ST colonies and other colonies in the village? What is its impact on human development indicators? Examine it from the sample data'
 18. What were the usual diseases of the people in colony due to storing of drainage water?
 - (a) TB
 - (b) Malaria
 - (c) Encephalitis
 - (d) Diarrhoea
 - (e) Any other diseases:
- whether they are reduced now/? Whether the child survival rate has increased in the colony?

19. Was there any dirty smell due to storage of drainage water? How was the menace of mosquitoes and flies? Whether it is reduced now. Whether dust pollution is reduced, and the environment is clean now? Whether it is well maintained now?
20. Whether the laying of cement road had helped easy movement of bullock carts, cycles, two wheelers and 4 wheelers. Whether the access to health facilities and education facilities has increased? Whether Infant and maternal deaths are reduced?
21. According to you, what was of source of drinking water before the commencement of the work?
22. According to you, what is the source at present i.e., after the commencement of the work?
23. Are you aware about the District Monitoring Committee (DMC)? If yes, describe your last meeting or experience with the committee.
24. What was the mode of drainage system before implementing the scheme?
25. Whether the community hall is kept clean and all facilities like kitchen, Dining hall, Toilets, permanent water facility are made? Who is maintaining them and who is the custodian of these Halls?
26. Discuss about the importance of the Karnataka scheduled castes sub-allocation and tribal sub-allocation rules, 2017
27. Whether the rules and guidelines of the act has helped in uplifting the living standards of the SC/ ST people in the colonies
28. Whether the rules and guidelines of the 2017 act aided in identifying the developmental gaps between the general and SC/ST colonies? Has there been suitable development works been carried on in this regard?
29. Whether the rules and guidelines of the 2017 act has helped the colony members towards more social mobility, better employment and income and access to education, health and other services?
30. Did you or any organisations took up the cause of development works for the colony? If any organization, mention the name and the process of approaching the concerned the agencies for prioritizing and implementing the works for the said colony.

Questionnaire for Personnel/Nodal department for obtaining information of works carried in each colony under each taluk

Demographic Profile

Name of the respondent:

Gender:

Age:

Designation and department:

Caste:

Name of the colony:

Development work profile:

Name of the development work carried out in the colony

Start date of the development work

End date of the development work

Status of the development work

a. Completed

b. Incomplete

c. Ongoing

Part A: Technical

1. Which of the following developmental works are carried on in the colony:

2. Construction of roads

3. Sanitation works

4. Drinking water facilities

5. Building of community halls

6. Whether the length, width and depth of the roads are as per the prescribed norms?

a. YES

NO

7. Provide the details of the length, width and depth of the roads constructed.

8. Length of the constructed road: _____

9. Width and depth of the constructed road: _____

10. Whether the works are carried out as per the standard norms? YES NO

a. If yes, please provide specific details

11. Whether the buildings are constructed as per the standard norms? YES NO

12. If yes, please provide specific details:

13. Whether the works are tendered? YES NO

a. Name of the tender company and tender details:

b. _____

c. _____

14. Whether there are any complaints received about the tendering, work allocation processes etc.

15. Whether works are completed on time? YES NO

a. If delayed specify the reasons for the delay?

b. _____

c. _____

16. Whether the beneficiary selection norms stipulated under scheme has been scrupulously/cautiously followed. Are there any deviations?

a. _____

b. _____

c. _____

If yes what are those deviations and to what extent Discuss in detail the reasons for such deviations'

17. During the implementation periods under reckoning i, e., 2014-15 till 2016-17 whether the amount prescribed under the scheme for different works was adequate and released as per the time schedule? If not, which are major components of cost inadequacy and irregularity?

a. _____

b. _____

18. Evaluate the quality of the above works for first year, second year where scheme has been implemented in 2014-15-2016-17. Discuss the findings where short comings are noticed and give suggestions

a. _____

b. _____

B - PERSONNEL

Mode of study: Semi structured interviews /focus group discussions among the personnel at each taluka.

Questions:

1. What are the Schemes taken up under the pragati colony programme in the State?
2. What is the impact of these schemes on the SC ST Colonies?
3. Are there any norms followed for distribution of funds across individual, family and community development schemes?
4. Whether the department has ensured coverage of the Scheduled Castes or the Scheduled Tribes in the ongoing general schemes consistent with their eligibility for the same under infrastructure development for the general communities.
5. Whether the development gap in terms of infrastructure facilities is estimated between the general communities and SC communities and ST communities? If yes, please provide details
6. Whether the process of selection of proposals is as per the Act of 2013? Are there any Deviations? Whether the Action Plans are approved by the State Council? Provide details and copies of documents
7. According to you are there any works under the SC/ST Colony Infrastructural Facilities Scheme under the Sub-allocation scheme (2013-2017) that needs to be completed?
8. Has the nodal department conducted field-based surveys to identify the development gaps in the respective region/district/taluka?
9. Has the nodal department instituted field-based evaluation studies of works bridging the development gaps in the respective region/district/taluka?

10. According to on what basis, allocation of funds for works under SC/ST Colony Infrastructural Facilities Scheme under the Sub-allocation scheme (2013-2017) is provided?
11. How are the funds allocated under the programmes over the time period? What criteria are followed for distribution of funds across the Departments and regions? How the works are selected under the sub plans? Whether needs are prioritized through a consultative process? If yes, please provide details
12. Whether the monitoring process is functioning effectively? Please provide details with respect to their role and involvement. (Reports of monitoring committees to be procured)
13. Is there any overlap with the general schemes (for non-SC/ST) and for SC/ST Sub-allocation scheme (2013-2017)?
14. What is the percentage of works selected in different SC/ST habitation: 100% to 50 %. Narrate the process of selection.
15. On what basis do you decide on allocation of works (cement road, drainage & sanitation, drinking water and community halls) to SC/ST colonies under your jurisdiction?
16. What is the proportion of works **under the four categories** in the total works across the districts and divisions? Is there any proper justification for taking more works under a particular category? Whether any saturation of works in colonies has taken place?
17. Can you provide details about fund allocation and expenditure across the concerned departments?
18. Did the concerned departments prepare a detailed plan of action for carrying out the prescribed work?

Annexure 3: The Ombudsman

The concept of Ombudsman is essentially that of an institution which is independent of the Executive, the Legislature and the Judiciary. It is freely accessible to the individual citizen who is aggrieved by administrative action or inaction. If the citizen approaches the Ombudsman with a genuine complaint, the latter takes up the responsibility of fully investigating the case himself without any expense or onus of proof on the complainant.

Ombudsman is an authority under a statute to provide redress for citizen's grievances against administration in a discreet and informal way. He may concern himself with complaints of injustice consequent upon maladministration. In addition to maladministration, he is also required to deal with complaints of corruption.

He is an officer of the legislature, appointed by it and free to report back to it at any time. He is an impartial investigator and is politically independent, even of the legislature. By tradition, all political parties agree on his appointment. His office is provided for in the constitution. Once he has begun the investigation of a case, the legislators do not and cannot intervene. His main power is the right to investigate and get at the facts. He has no right to quash or reverse a decision and has no direct control over the courts or the administration. He has power to investigate on his own initiative. He can take up cases based on reports in the press. All that is required to initiate the complainant to write a letter. His method of handling administrative decisions is direct, informal, speedy and cheap is based upon his objectivity, competence, superior knowledge and practice.

The fundamental argument for Ombudsman everywhere is that government process can be improved significantly through continuing criticism by an officer who focuses on problems of administrative action but who is not involved in making substantive decisions and who is not limited to one field of administration. The idea rests heavily upon the cardinal principle of check against unfair governmental actions. The check can be aimed at not merely unfairness but also at inefficiency.

Appointment:

- Ombudsman is to be appointed by the Governor in consultation with Chief Justice of High Court and the leader of the Opposition in Vidhan Sabha.
- If there is no such leader a person is to be elected for this purpose by the Members of the opposition in that house in such a manner as the speaker may direct.

- The person entering the office of the Ombudsman shall be a retired District Judge and shall take an oath or affirmation set out in the Constitution of India.
- The Ombudsman may for the purpose of convenient disposal of investigation or special directions as he considers necessary shall be subject to the administrative control of Governor.
- The Ombudsman shall not be a member of State Legislatures. He shall not hold any office other than the office of Ombudsman or carry on any business or be connected with Political Parties.
- Every person appointed as the Ombudsman shall hold office for a term of five years. He is not eligible for re-appointment. He can resign from his office by writing to the Governor.
- The Ombudsman may be removed from the office by the Governor only on grounds of misbehaviour or incapacity after conducting an enquiry by a retired High Court Judge and the report has to be submitted in a sealed cover to the Governor who gets it laid before each house of Assembly supported by a majority of the total House and a majority of not less than two-thirds of house present and voting has been presented to the Governor in the same session for such removal.

The Powers and Procedure of Ombudsman:

A complaint can be lodged before the Ombudsman case of a grievance by the person aggrieved, secondly in the case of an allegation by any person other than a public servant. Where the person is dead or is unable to act for himself the complaint made by any person who in law represents his estate or by any who is authorised by him in his behalf.

The Ombudsman may in his discretion refuse to investigate any complaint involving a grievance or an allegation, if in his opinion (a) the complaint is frivolous or is not made in good (b) there are not sufficient grounds for investigating or, as the be, for continuing the investigation, or (c) other remedies are available to the complainant and in the circumstances of the case it would be more proper for the complainants to avail of such remedies.

The Ombudsman has all the powers of a Civil Court while trying a suit under the Code of civil procedure, 1908 in respect the following matters namely : -

- a) summoning and enforcing the attendance of any person an examining him on oath;
- b) requiring the discovery and production of any document;

- c) receiving evidence on affidavits;
- d) requisitioning any public record or copy thereof from an court of office;
- e) issuing commissions for the examination of witnesses or documents;
- f) Such other matters as may be prescribed.

Any proceedings before the Ombudsman shall be deemed be a judicial proceeding within the meaning of section 193 of the India Penal Code. Anyone who gives false evidence or fabricates false evidence for the purpose of a proceeding before the Ombudsman would therefore be punished according to the Indian Penal code.

Annexure 4: Glossary

Resources: Resources to implement infrastructural and non infrastructural facilities

Infrastructure: Implementation of infrastructural facilities in the SC/ST colonies like construction of roads, drinking

Non-Infrastructure: Implementation of non- infrastructural facilities like vocational training, skill training, coaching classes etc for the people in the SC/ST colonies

Stakeholders: Stakeholders of the colonies

Beneficiaries : Beneficiaries of the SC/ST colonies

Non-Beneficiaries: Non Beneficiaries are those members who are not part of the SC/ST colonies

Agencies: Agencies to implement infrastructural and non-infrastructural facilities

Government : Initiatives of the government at the central, state and local level

Social Welfare Department: Initiatives of the social welfare department at the central, state and local level

Public Works Department : Initiatives of the public development department at the central, state and local level
thanda level

District Commissioner : Initiatives taken from the district commissioner for development of SC/ST colonies at the district, taluk and thandas level.

Non-Government : Initiatives taken from the non governmental organisations in the SC/ST colonies

Industry: Initiatives taken from the industries in the SC/ST colonies

Outcomes: Outcomes from the implemented facilities

Economic: Development of colony's capacity to generate and apply economic knowledge for its advancement

Empowerment: Empowerment of the members residing in the colonies

Social mobility: Social mobility of the members of the colonies

Social Status: Social status of the members of the colonies

Human Development: Development of the members of the colonies with respect to human development index

Accessibility : Accessibility to facilities outside the colony area like school, hospital, colleges etc

Annexure 5: Photos from the Field

1. Belagavi District



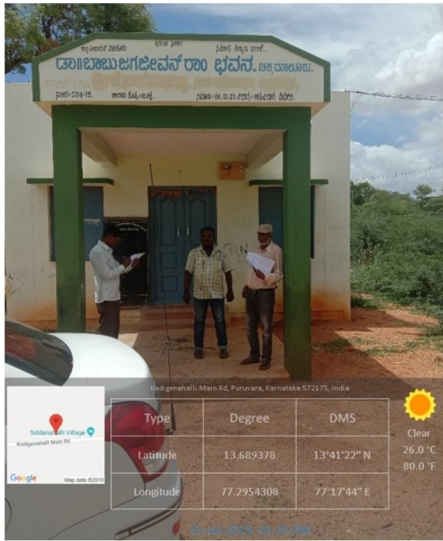
2. Kolar District



2. Chamarajanagar District



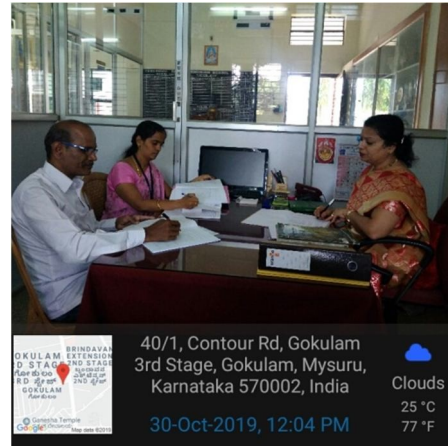
4. Tumkur District



5. Raichur District



6. Mysore District



BRINDAVAN
GOKULAM EXTENSION
3RD STAGE
3rd Stage, Gokulam, Mysuru,
Karnataka 570002, India
30-Oct-2019, 12:04 PM
Clouds
25 °C
77 °F



**EVALUATION OF THE PERFORMANCE OF SC/ST COLONY INFRASTRUCTURAL
FACILITIES SCHEME UNDER THE SCSA/TSA FOR THE PERIOD OF
2014-2015, 2015-2016 AND 2016-2017**

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Bengaluru – 560 001**

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