



Water Security and Climate Adaptation in Rural India - Tamil Nadu

ENDLINE STUDY COMPOSITE WATER RESOURCES MANAGEMENT PLANS TIRUVANNAMALAI DISTRICT TAMIL NADU

District Rural Development Agency, Tiruvannamalai
April 2022

Forward

The Water Security and Climate Adaptation in Rural India (WASCA) is a bi-lateral project commissioned by the German Federal Ministry for Economic Cooperation and Development in partnership with the Ministry of Rural Development (MoRD) and Ministry of Jal Shakti (MoJS), Government of India. It has been implemented in Tiruvannamalai district of Tamil Nadu from February 2020 to April 2022.

The primary objective of the project was to enhance the water resources in the district by strengthening planning, financing and implementation mechanisms. In the process, climate proofing lens was embraced by analyzing the medium and long-term trends in climate impacts and used science-based approach while identifying suitable water actions. The whole process adopted bottom-up approach starting from gram panchayat to block and district. The key strategies and pathways adopted to achieve the objectives from the ground were: strengthening the convergence of existing plans in partnership with line departments, promoting site specific climate resilient water management measures vis-à-vis land use systems, and promoting climate resilient and water efficient production systems.

The investments in water harvesting and recharge are essential to meet the future water requirements for human, agriculture and other uses as the demand is escalating in all the sources. The increase of water resources supports to improve water budget and address the demands across key sectors; human, agriculture, livestock and industry.

Additional Collector (Devp.)
DRDA, Tiruvannamalai district,
Tamil Nadu, India

End line Report

Water Security and Climate Adaptation in Rural India, Tiruvannamalai district, Tamil Nadu

Water Security and Climate Adaptation in Rural India (WASCA), a bi-lateral project commissioned by the German Federal Ministry for Economic Cooperation and Development in partnership with the Ministry of Rural Development (MoRD) and Ministry of Jal Shakti (MoJS) was implemented by GIZ in five states at the national level namely, Tamil Nadu, Rajasthan, Madhya Pradesh, Karnataka and Uttar Pradesh. The project period was three years from April 2019 to March 2022. The project aimed to improve water resource management through an integrated approach at national, state and local levels with respect to water security and climate adaptation. It addressed the issues in rural water resources management by improving the efficiency in planning, financing and implementation mechanisms keeping the lens of climate change adaptation. The main results planned were:

1. Improved convergence of existing planning and financing approaches to strengthen water security and
2. Developing Climate Resilient Water Management measures for integrated and climate adapted management of water resources at state and local levels

In the state of Tamil Nadu, GIZ, India has conducted a scoping study with the technical support of Anna University which studied the state's rural water security through a systematic analysis via availability, accessibility of water and its governance through climate lens at the district scale (Annexure 1. List of indicators). The project was implemented in Tiruvannamalai and Ramanathapuram districts in Tamil Nadu. This report captures the results achieved at the end of project period i.e March 2022 and compared against the baseline carried out at the start of the project in Tiruvannamalai district (Box 1. Brief profile of the district).

Brief Profile of Tiruvannamalai: The district is geographically located between 11.55° and 13.15° North latitude and 78.20° to 79.50° East longitude. The total geographical area is 6188 sq km. It consists of 860 Grama or Village Panchayats, 4775 habitation and 1067 Revenue Villages. The total population of the district is 24.64 lakhs (12.35 lakhs male and 12.28 lakhs female), of the total population, 79.9 % of its population living in rural and 20.08 % in urban region. The overall literacy rate of the district is 74.21%, of which 83.11% for male and 65.32% female.

The total gross cropped area of the district was 3.14 lakh Ha and net area sown was 1.77 lakh Ha in 2017-18. The area under forest is 24.20% and the net area sown is 33% of the total geographical area. The district has 2,14,243 wells and 1,966 tanks based on the G returns of 2018-19¹. The area sown more than once has increased from 0.4 lakh Ha in 2016-17 to 1.06 Ha in 2017-18.

It has direct implications on ground water exploitation as the recent CGWB survey indicates that 9 blocks namely Chengam, Kalasapakkam, Kilpenathur, Polur, Pudupalayam Thandarapattu, Thiruvannamalai, Thuringipuram, Vandavasi are over exploited, two blocks under critical category West Arni and Jawadhi hills while five blocks such as Anakavur, Arni, Chetpet, Cheyyar and Vembakkam are semi-critical. The annual rainfall is 1047 mm and distributed fairly both in SW and NE monsoon season. Paddy and sugarcane, the highwater requiring crops are the primary crops followed by groundnut, vegetables and flowers. The dominant soil type is red loam followed by black loam in river bed regions of the district. So far to improve the sustainability of drinking water resources, 546 check dams, 39 percolation tanks, 9 ooranies, 24 defunct borewell recharge and 30 roof top rainwater harvesting structures were in place in the district¹.

Context of Tiruvannamalai District: There is a wide gap between supply and demand of water, which increases the existing vulnerability of the district in agriculture sector. Besides, the district is vulnerable in terms of socio-economic dimension due to social and income poverty of the communities. These dimensions of the vulnerability will be deepened in the changing climate scenarios in both mid (2050) and end century (2080). The climate projection based on global climate models indicate that there would be 1°C increase in maximum temperature in mid-century (MC) period (2041-2070) and 1.5°C increase in end-century (EC) period (2071-2100) from the baseline scenario under RCP 4.5 climate scenario. The minimum temperature would increase nearly 1.2°C and 2.1°C during MC and EC periods.

In this backdrop, mapping of the key water challenges and appropriate water actions are identified for the 860 GPs in the district in mid 2020 to till date. These water actions are treated as shelf of projects and currently being implemented on priority basis to strengthen water resources of the GP. While implementing the plans, Mahatma Gandhi National Rural Employment Management was used as a base and leveraged the provisions from other line departments and private agencies.

Operationalizing the WASCA in Tiruvannamalai

The preparation of Composite Water Resources Management Plan using hydrological and geo-spatial tools has been initiated in Tiruvannamalai district in April 2020. The Gram Panchayat (GP) was the base unit of planning. The water budget was calculated through scientific analysis by assessing the demand for domestic, agriculture and livestock production and water supply from available resources within the village boundary. Subsequently, identification of water actions/works to strengthen the water resources and augment the supply of both surface storage and ground water recharge was identified. All the GPs in the district were covered under this assessment and later the GP level analysis was consolidated into different functional scales, eg micro watershed/macro shed levels, sub basin and block and district levels. The district officials were trained in the preparation of the plan and activities re started in the field. Also, at the district level, at the District Rural Development Agency office, WSACA resource centre was established to support the preparation of GIS based scientifically supported village plans for further actions. In this framework, to set the current context and to assess the impact of the WASCA interventions later, both baseline at the time of start of the project (April 2020) and end line (April 2022) at the end of the project.

Methodology

The report is organized in two sections. Section A deals with outcome level assessment through schemes and programmes to examine the financing mechanisms and planning. While the section B describes the output level actions in which important details like number of works carried out at the village, expenditure incurred in different categories of work and GIS planning.

Section A

Baseline assessment: The baseline assessment indicators were designed at the level of both outcome and output level results. The outcome level mapping was done at the district level and primarily it was started with the desk review about the schemes on integrated water resources management and its implementation over the last five years in the district to understand the policy/schemes supporting the approach as well as details on the works carried out with financial allocations on possible cases. In order to assess the kind of works undertaken to augment the water resources through on-going government schemes viz MGNREGA and other line departments schemes under convergence mode, review of the available documents - reports, policy documents, technical briefs, research papers etc were carried out (indicator 1 and 2).

Endline assessment: Similar to the baseline assessment, the outcome level mapping is carried out the spatial scale of district. It is done by reviewing the new schemes and policies developed to promote integrated water resource management as well as climate change issues. Besides, it covered the process of convergence, how it has been operationalized in the district level and its outcomes.

Section B

At the second level on output level results, data were collected from 18 gram panchayats (GP) at the rate of one GP per block before and after implementation of the project. The table 1 provides the details of the total population and households, number of hamlets and the geographical extend. To understand the demand for the employment, proportion of women's participation and social inclusion as well as type of NRM works carried out along with the expenditure were studied to know the status. It was done by consulting the documents such as: (a) Records of the district annual report to Rural Development on the works done and proposed activities for the year 2018-19 (in the month of February) and March 2022- Report no.6 and (b) MGNREGA activities details

(both physical, financial and list of workers undertaken - annual list/figures) in those selected GPs for years ending 2018-19¹ and 2022. Besides, individual discussions were held with the district officials and observed the key issues discussed in the district level meetings and with the block officials to understand the trends in climate change issues and extreme events.

Table 1. List of villages identified for both baseline and end line study and its profile

S.No	Block	Name of the panchayat	Total Households	Name of the hamlets	Total populations	Geographical area of GP (Ha)
1	Tiruvannamalai	Adiannamalai	1284	Adiannamalai	4066	755
2	Kilpenathur	So.Nammiyanthal	366	Nammiandal(SO)	1418	254
3	Thurinjapuram	Meppathurai	366	Meppathurai	1493	796
4	Polur	Kuppam	1121	Kuppam Adiravidar Colony Kuppam Arunthaiyar Colony Melkuppam Anna Nagar Kuppam Kollaimedu Kumpal Kotta Paraikotta Kumpal Kotta Colony Kuppam	4194	640
5	Kalasapakkam	Venkattampalayam	328	Venkattampalayam	1308	160.36
6	Chetpet	Karikkathur	572	Karikathur	1778	529.47
7	Chengam	Anthanur	919	Panpulan Nagar Karumaskulam Thurinjavaram Andanur	5004	557.6
8	Pudupalayam	Unnamalaipalayam	420	Nadupattu Unnamalai Palayam	905	321.25
9	Thandrapet	Kilvanakkambadi	1040	Thesurpalaiyam Thunnaikuttupalaiyam Keelvanakkambadi	4518	1116.79
10	Jawadhumalai	Nammiyampattu	2203	Nammiyampattu	8222	1808
11	Cheyyar	Murugathampoondi	195	Murugathampoondi	813	301
12	Anakkavoor	Soundaryapuram	266	Soundariyapuram M Manipuram Soundariyapuram M	1040	348

¹ source: [www. https://www.nrega.nic.in/netnrega/mgnrega_new/Nrega_home.aspx](https://www.nrega.nic.in/netnrega/mgnrega_new/Nrega_home.aspx)

				Thuraiyur Soundariyapuram		
13	Arni	Paiyur	1764	Paiyur	381.25	7555
14	Vembakkam	Ukkamperumbakkam	404	Madura Vadaku Medu Ukkamperumpakkam	1243	274
15	Vandavasi	Vengunam	923	vengunam	3882	533
16	Thellar	Madam	649	Madam	1196	136
17	Peranamallur	Jaganathapuram	189	J Patti Jaganathapuram	730	303
18	West Arani	Vinnamangalam	726	Vinnamangalam	2931	757

Baseline (2018-19) and Endline (2021-22) Assessment

Outcome 1- Water resource management is enhanced through an integrated approach at national, state and local level with regards to water security and climate adaptation in rural areas.

Table 2.

Indicator 1: Number of existing planning- and financing mechanisms comprise approaches for an integrated, climate-adapted water resource management in rural areas.

2018-19	2020-21		
6 of the 7 existing schemes, and financing mechanisms apart from <i>MGNREGS</i> , comprise approaches for an integrated, climate-adapted water resource management in rural areas.	8 new schemes have been launched in the state with an objective of improving the water use in agriculture	Evaluation of agreed planning documents at the national, states and local level, qualitative content analysis of financing proposals.	The schemes of both government (state and central) and private sectors which were implemented focusing on integrated water resources management and climate adaptation on district level was reviewed to understand its intensity of works and reach (column 2-4 below)

No.	Name of the schemes	About the programme details in the scheme/policy reference	Specific allocation to district	About the programme details in the scheme/policy reference	Specific allocation to district/state
		2018-19		2020-21	
1	<i>Kudimaramath</i> : Tamil Nadu Water Resource Conservation and Augmentation Mission	The Government order in 2018-19 (G.O (Ms) No.96, RD & PR Dept., Dated. 26.7.2019) has been renewed under Public works department and	The details of allocation for Tiruvannamalai district was restoration of 37 tanks and with an estimated amount of Rs 1607 Lakhs in 2018-19 ²	The 2020-21- G.O. Ms.No. 98 Dated 22/04/2020 – Water bodies Restoration under Participatory approach	This has increased to 54 works with an allocation of Rs 3120.27 Lakhs covering an ayacut area of 6034.81 ha ³ in 2020-21 (state)

² http://www.wrd.tn.gov.in/Kudimaramath_2019-20_list_of_works.pdf

³ https://www.wrd.tn.gov.in/kudimaramath/kudimaramath_e_list_of_work_2020_21.pdf

2	Tamil Nadu - Irrigated Agriculture Modernization and Water Bodies Restoration and Management (TN-IAMWRM)	Under Phase III total three sub basins ⁴ are covered which aims to increase the water use efficiency and productivity and the scheme is supported by World Bank and implemented through Govt of Tamil Nadu	Aliyar Sub basin- 2580 Ha ⁵ Pambanar- Veratar - 1213.54 Ha Thurinjalur - 4442.63 Ha	This focus areas of the scheme are: Farm ponds Model village programme	2020-21, following works were completed (state) 53 farm ponds were constructed for an amount of Rs.34.34 lakh. 12 model village with a total budget of Rs 24 lakh in three years duration
3	Rainwater Harvesting and Runoff Management Programme	It is a state plan scheme and the kind of works undertaken are percolation ponds, major, medium and minor check dams, farm ponds, rejuvenation of unused wells, village tanks/ooranies	Allocation details are not given and it is taken under convergence with watershed development programmes	-	The theme of the scheme is covered under different schemes
4	Mission on Sustainable Dryland Agriculture	Rain water harvesting is adopted as an entry point activities and promoted water harvesting structures such as check dams, village ponds, community ponds and deepening of Ooranies	Rs 5 lakh per cluster was adopted and for the 48 cluster the total budget for the work in this district was Rs 2.40 Cr.	The scheme name has been changed as “Chief Minister’s Dry land Development Mission” to creation of micro catchment water harvesting measures within the farmer’s field - Field bunding and Farm ponds	Approved for 32 districts – Tiruvannamalai is included for implementation @ Rs 7.49 Crore from state fund
5	Tamil Nadu Watershed Development Agency (TAWDEVA)	<i>Pradhan Mantri Krishi Sinchayee Yojana</i> (Integrated Watershed Management Programme	9152 ha was covered under micro irrigation during 2018-19 ⁶	Changed to maintenance of watershed structures instead of proposing new watersheds. Desilting and deepening of water bodies to increase the water storage capacity	1700 water harvesting structures @Rs 500 lakhs with the support of Agriculture Engineering dept (state)
6	<i>Jal Shakthi Abiyan</i>	Importance was given to the water augmentation initiatives, specifically most of the blocks are categorized as Over exploited and critical by CGWB	A mission mode water conservation campaign was organised to ease water shortage in the district. Under this	Catch the rain campaign was started to build awareness on rainwater harvesting and storage	256 water stressed districts and 1592 water stressed blocks were identified and five key interventions are promoted water conservation and rain water

⁴ <https://www.tniamwarmtnau.org/sub-basins/phase-3>

⁵ <http://www.iamwarm.gov.in/PDF/Project/DPR/PHASE-II/Aliyar.pdf>

⁶ <http://agricoop.nic.in/sites/default/files/PMKSYAchievement2018-19.pdf>

			water banks, and other mgt initiatives were promoted ⁷ .		harvesting, renovation of traditional water bodies, re use, borewell recharge structures, water shed development along with afforestation.
7	<i>Jal Jeevan Mission</i>	The scheme is started from 2019-2020 - focus is given on drinking water	18.2% HHs has tap connection in the district,	Ensuring tap water connection to all the households, reached more than 40%	Rs 921.99 Crore in 2020-21 was allocated to the state and increased in 2021-22 to Rs 3691.21 crores
8	Special package to bring fallow lands into cultivation – Govt of Tamil Nadu	-	-	The restoration of fallow land reduce the soil erosion optimizing the surface run off water and promote on-farm water conservation	15,000 ha of fallow lands earmarked to brought into cultivation under National Agriculture Development Programme with a financial allocation of Rs.20.57 crore.
9	<i>Kalaigarin Anaithu Grama Orunginaintha Velaan Valarchi Thittam</i>	-	-	Main objectives are to increase the cultivable area by bringing fallow lands under cultivation and by creating new water sources	It was implemented in about 100 villages and will be continued in the subsequent years
10	Farm ponds for on-farm rainwater conservation	-	-	Farm pond size of 1568 cubic meter capacity – life saving irrigation and inland aquaculture	500 farm ponds in the state
11	Micro Irrigation under <i>Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)-Per Drop More Crop</i>			Improve water use efficiency and reduce wastage of water	an area of 1,50,000 Ha covered under micro Irrigation with a cost of Rs.982.48 crore (state)
12	Supplementary water management activities	-	-	Sinking of Shallow Tube Wells/Bore wells/Wells - in Safe Firkas, installation of diesel pumpset/ electric motor pumpset, laying of conveyance pipes and	1,89,592 work, value of Rs.303.35 crore (state)

⁷ <http://sujal-swachhsangraha.gov.in/node/3106>

				construction of Ground Level Storage Structures	
13	Providing electric motor pumpsets to the farmers with subsidy	-	-	Improve the efficiency of electric pumps, facilitate pumping of irrigation water from the wells by marginal farmers	1000 farmers provided with electric motor pumpsets for irrigation using ground water (state)

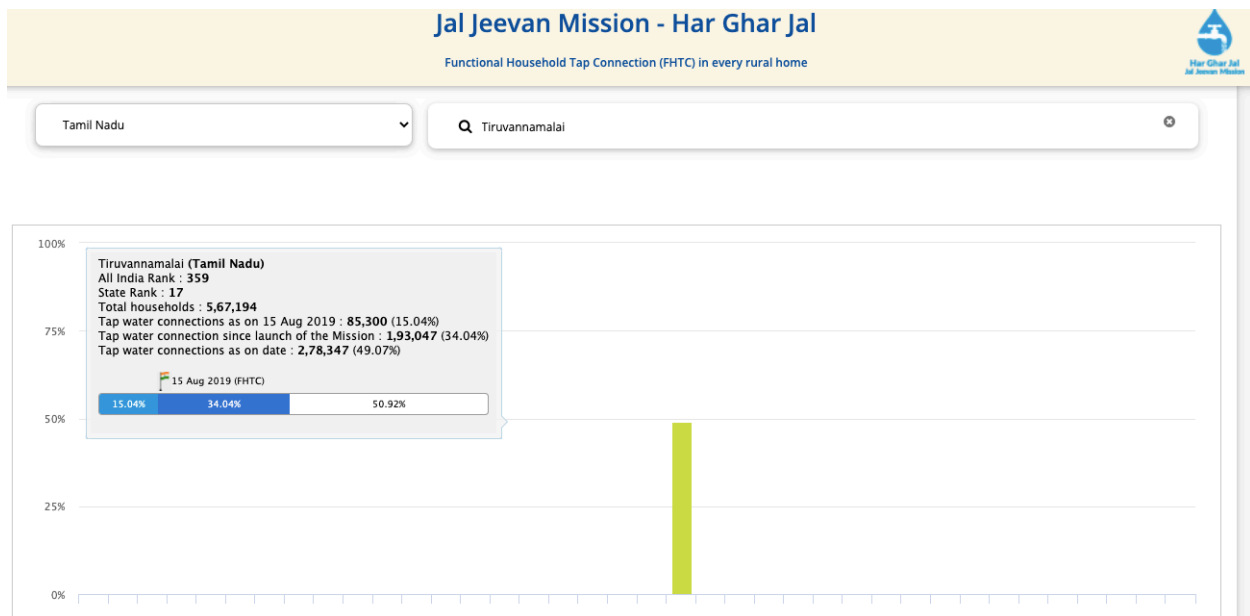
Table 3. Indicator 2. Number of financing decisions at the district and GP level take into consideration approaches for an integrated, climate-adapted water resource management in rural areas.

Financing decisions at the district and GP level take into consideration approaches for an integrated, climate-adapted water resource management in rural areas.	Financing decisions have been taken the last 5 years under MGNREGA and seven different schemes consider IWRM	<p>Based on the analysis of the 18 GPs, MGNREGA is the primary scheme focusing on water management from both community and individual resources, in that during the in the initial years of this assessment, the financial decisions on water management works 70% in 2018-19 which was higher than previous year's allocation</p> <p>During 2018-19, seven main schemes which supported for the integrated water management to strengthen the water bodies to capture and store more surface water from the runoff is given below, but still the climate change analysis was not explicit but decisions are supporting the farmers to adapt to the risks of different climate change events - seasonal drought, intra seasonal distribution of rainfall etc. However, under JSA, the district has prepared a detailed water budget and initiated innovative actions to improve the water conservation, harvesting and efficient use.</p>
		<p>MGNREGA is the primary scheme focusing on water management from both community and individual resources. In 2018-19, more than 90% of the resources was spent on common and public land while in 2021-22, there has been a shift in resource sharing across three categories of works including public and common land development, individual land and rural infrastructures.</p> <p>During 2020-21, in addition to seven existing schemes 8 more schemes were added. The primary objectives of those new schemes were largely focusing on efficient use of water and on-farm rain water harvesting measures.</p>
	Under which scheme/ programme these financing decisions have been taken	As indicated above MGNREGA is the main scheme contributing to this, apart from that in total 13 different schemes were covered

MGNREGA: There has been a shift in practice from water management perspective is evident, till 2018-19, although, the primary watershed principle of “ridge to valley” is adopted keeping the village context and planning is done at the GP level without looking into the upstream status. However, in 2020-21, the micro watershed analysis was undertaken, overlaid with GP boundaries and the implementation officials were oriented to select the works based on watershed approach across the GPs. On the demand side, the total water requirement for the drinking for the whole village is largely depend on integrated water supply schemes, bore or open wells supplemented by tanks to a least scale till 2018-19. Conversely during 2020-21, Jal Jeevan Mission (JJM) was introduced in Aug 2019 and continued till date. The progress in providing tap water supply in households are given in Fig 1⁸ and table 4. Which is increased from 15.04 % in Aug 2019 to 49.00 % as April 2022.

Table 4. Status of access to drinking water in households

Total households	Households with tap water supply	Households with tap water supply (%)
567194	278347	49.07



Progress of JJM in Tiruvannamalai district as on date

⁸ <https://ejalshakti.gov.in/jjmreport/JJMDistrictView.aspx>

For agriculture, still the ground water is the primary source of water and the tanks have been increasingly used as recharge structure as well as source for livestock⁹ in both the baseline and end line. Similarly, paddy, groundnut, pulses(blackgram), millets and sugarcane are the primary crops followed by vegetables and flowers are cultivated using ground water. At the overall level the area under irrigation is higher in proportion between 2018-19 to 2020-21. In 2018, the gross area under irrigation was 2,53,684¹⁰ ha while it was slightly increased to 2,60,147¹¹ ha in 2020-21. This shows the increasing trend of using ground water for irrigation in the district.

Private sector schemes: There are more than three NGOs and quite a few private sector institutions under the Corporate Social Responsibility programme had partnered with a civil society organizations in the district to implement the watershed and afforestation schemes joining with NABARD. The initiatives have been continuing in the district in 2020-21.

Output 2:	Indicator 2.2:	
Water resource management at the local level increasingly takes into consideration integrated climate-adapted approaches.	Number of decisions of GPs on water management measures are in line with the integrated, climate-adapted water resource management with equal participation of women and men.	GP records, minutes of meetings, analysis of the decisions with regards to overarching principals of an integrated climate adapted water resource management. Standardised guided interviews / surveys with participating GPs about the use of the conveyed knowledge for the decision taking; analysis of the documentation of user groups with regards to gender participation.

The Grama Panchayat wise detailed analysis of the data is given below:

The study compared the differences on key indicators under this scheme between 2018-19 and 2020-21. The indicators are number of number of registered and active job card holders, proportion of SC/ST and women active job card holders, percentage of households completed 100 days of employment, number of NRM and non NRM works undertaken, number of NRM works undertaken and expenditure incurred in public/common land, individual land and rural infrastructures, number of works uploaded in NREGA soft (D-29) and number of works in GIS

⁹ visit to the villages and interaction with the Panchayat and district officials on the status, Velleri village in Arni block

¹⁰ <https://cdn.s3waas.gov.in/s318997733ec258a9fcdf239cc55d53363/uploads/2018/12/2018120781.pdf>

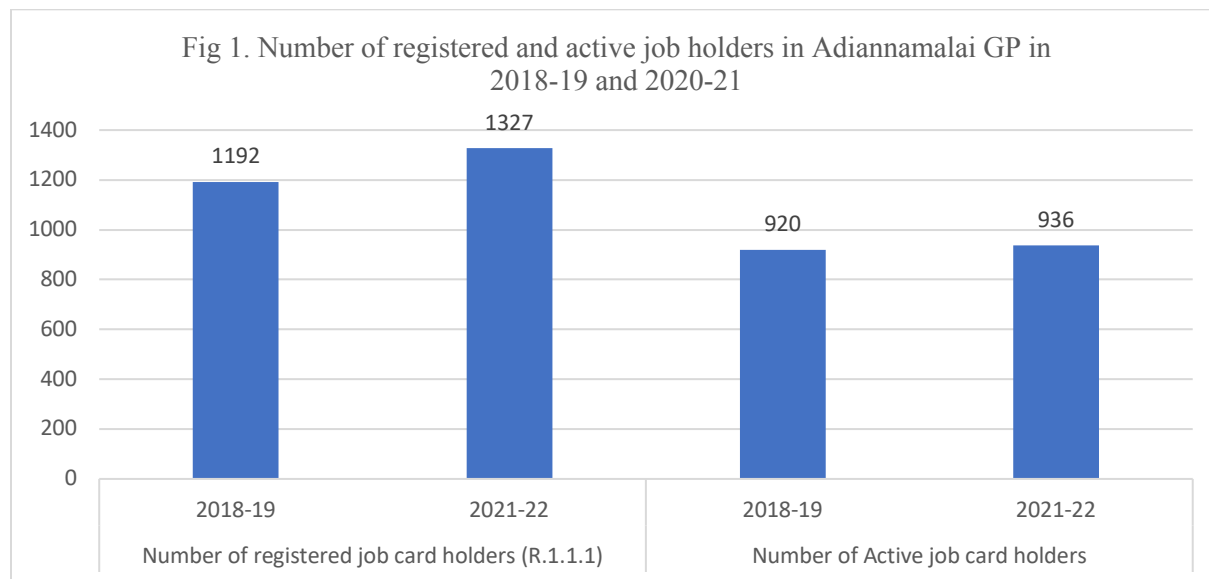
¹¹ <http://kvkthiruvannamalai.com/Success/Agriculture.pdf>

Plan and total number of on-going and completed works (detailed comparative analysis is given below in section indicator 2.1).

1. Adiannamalai Grama Panchayat, Tiruvannamalai Block

The Adiannamalai gram panchayat is located in Tiruvannamalai block and has 1284 households with a total population of 4066 persons (2086 M/1980F). The village has a total geographical area of 755 ha and of which 19% is under agriculture. Of the total area, 14% is under irrigation and 5% under rainfed conditions. Nearly 65% of the area is under current fallow in this village in 2011. However, as per the village records of 2018, the area under cultivation has increased to 168 Ha and all the cultivated area is under irrigation. More than ten crops are being cultivated in the village, predominantly paddy is cultivated under 49% followed by pulses up to 25%. The main climate change issues are erratic intra-seasonal distribution of rain which has implications on ground water recharge as well as soil moisture.

With reference to MGNREGA work in the GP, there has been 10 % increase in number of registered job holders between the 2018-19 to 2021-22, while the improvement in active job card holders was only 2% (Fig 1).



Of the total households registered and actively seeking employment, during 2018-19 it was 77% but it was reduced in 2021-22 to 71 percent. There was no difference in the participation of ST households and women in the comparing period. While among SC card holders there was a marginal increase in the active job card holders from 15% to 16% in the comparative period of three years. With regard to households completed 100 days of employment was zero in the baseline study year and slightly increased to 1% during 2021-22, which means about 9 members have completed 100 days of employment in this village out of 936 active job card holders.

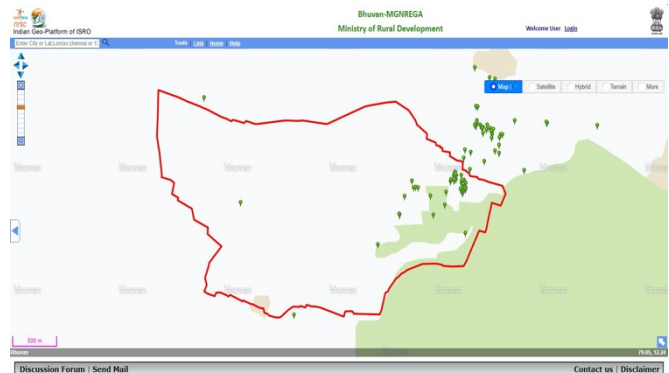
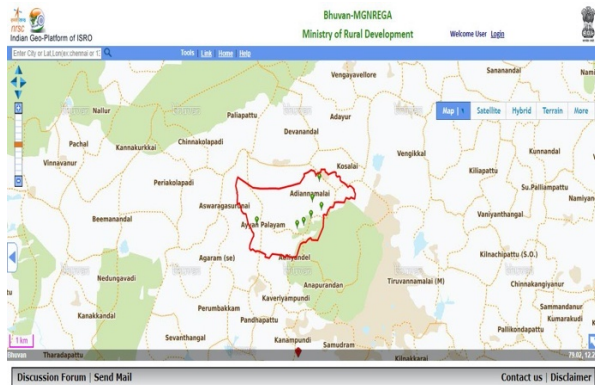
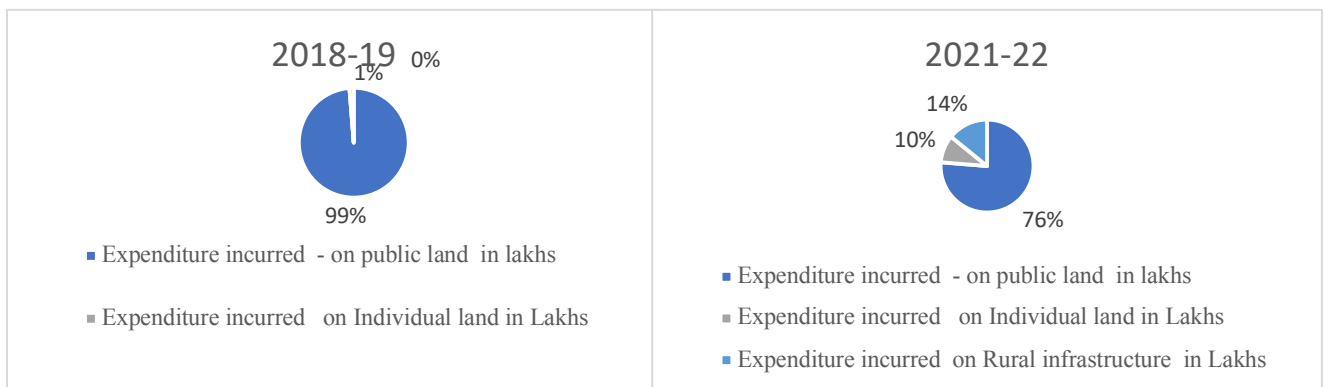
From the table 5, it is evident that there has been a twelve times increase in the NRM and non-NRM works between the three years period. Between NRM and total works, during 2018-19 it was only 52%, but in 2021-22 it was 95% which means primarily all the works undertaken in the village is focussed on conserving natural resources management.

Table 5. Key indicators of works and expenditure in 2018-19 and 2021-22 in Adiannamalai GP, Tiruvannamalai block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	46	577
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	24	549
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	29.04	56.71
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	7.12
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.37	10.49
6	Total number of NRM works completed/on-going	11	12
7	Total NRM Works from CWRM plan for three years	-	174
8	Total Non-NRM works from CWRM plans for three years	-	40
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	-	199
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	-	15
11	No of Works in GIS plan ongoing (R28.3)		199
12	Average number of days employment provided per households	24.98	38.02
13	Person days generated so far	18,935	32,923
14	Total number of works taken up (new + spill over)	39	507

The CWRM plan enabled to identify 174 NRM works during 2021-22 and in total 199 works (both NRM and non-NRM) was uploaded in the NREGA soft which was not done during the 2018-19. While no of works on-going in the GIS plan was 11 which was not initiated in 2018-19. With reference to expenditure among the three different categories of the works, during 2018-19, almost 99% of the expenditure was spent on works in public and common land. This has been drastically changed in 2021-22, wherein although higher proportion i.e 76% was on public land, 14% is spent on rural infrastructure and 10% was on the individual works. With reference to the works completed in year 2021-22 there is a marginal increase has been recorded. 199 works are uploaded in the NREGA soft and same number of works are on-going in the GIS plan. With regard to average number of days employment provided there has been increase in number of days to an extend of 35% in 2021-22 compared to the base year of 2018-19. Similarly, person days generated also 47% higher in 2021-22 compared to the base year.

Fig. 2. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22



Map 1. Adianamalai Gram Panchayat MGNREGA Map for 2018-19 and 2021-22

2. So.Nammiyanthal GP, Kilpenathur Block

The village is located in Kilpenathur block has a population of 1418 persons and 366 households. It has both SC and ST population to the tune of 17.8% SC and 18.9% ST. The total geographical area of the GP is 254 Ha. 79% of the total geographical area is under cultivation, of the total area 51% is under irrigation and 28% is under rainfed condition. Paddy, sugarcane, pulses, vegetables are commonly cultivated and ground water is the only source for irrigation. The village is under the over exploited category and soil type is loamy in texture and almost 100% of the soil is moderately alkaline. The distribution of rainfall in the season is most important for filling the water bodies which is essential for the groundwater recharge.

In MGNREGS, there was no change in the number of registered card holders and the ratio between active card holders in the study period between 2018-19 and 2021-22 (Fig 3). Similarly, there was no change among SC and ST job card holders and the percentage of members who has completed the 100 days of employment. The variation in the number of NRM works to the total number of works, there was stark difference within these three years. In fact, it was higher (70%) in 2021-22 compared to 48% in 2018-19. Comparing the proportion of expenditure invested among the three categories of works, almost 99% of the budget was spent on works in the public and common land during 2018-19. While there was slight shift in the proportion of spending among the three works: 89% in public and common land, 5% in individual work category while it was 6% in rural infrastructures (Fig 4). With regard to proportion of NRM works in the total works, during 2018-19 it was 48%, it was increased to 70% in 2021-22 (Table 6). There was difference in the comparing study period on number of works on-going or completed. While, in 2021-22 using CWRM approach identified 150 NRM works which has potential in augmenting water resources the village. There was 116 works identified under non-NRM work category and 299 works were already uploaded in the D-29 database, and there was no pending works to be added in D-29. There was no difference in the number of employment days completed in the comparative study years. However, in the total number of person days generated, there was 15% higher number of days was observed in 2021-22 (14,916) compared to 12,727 days in 2018-19. Also, 30% difference was noticed in the works taken up (new and spill over) between 2018-19 and 2021-22 (Table 6).

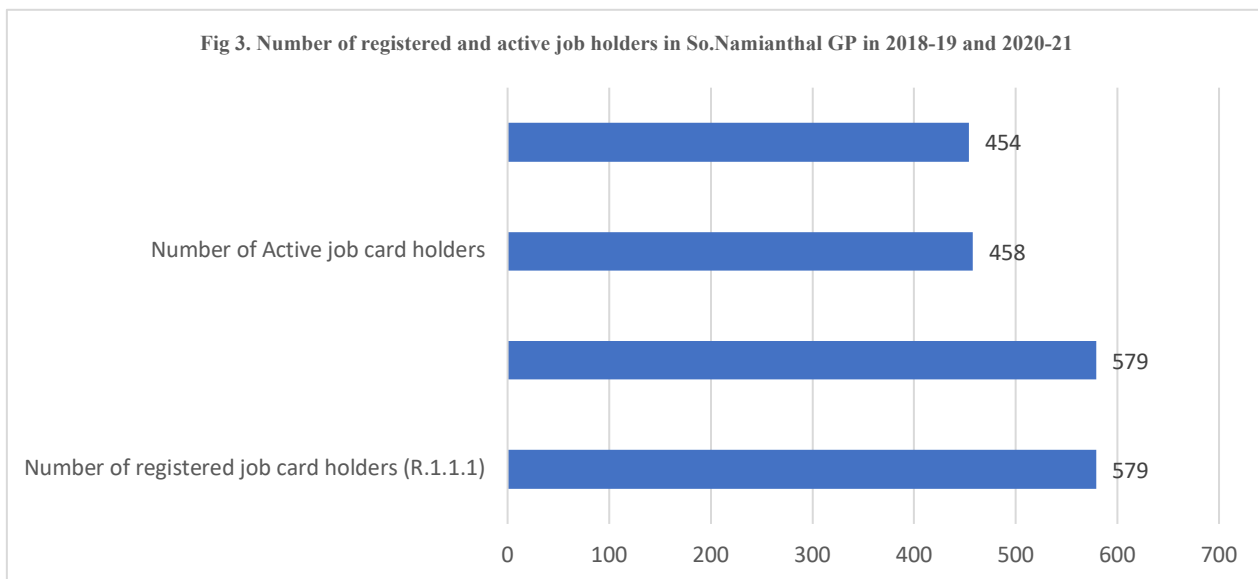


Fig. 4. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, So.Namianthal, Kilpennathur block

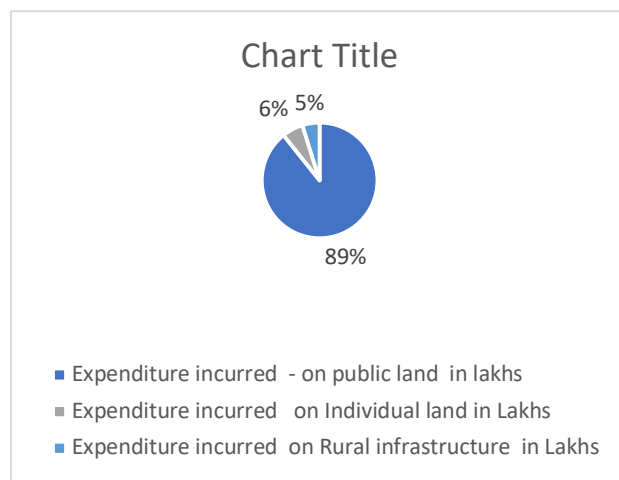
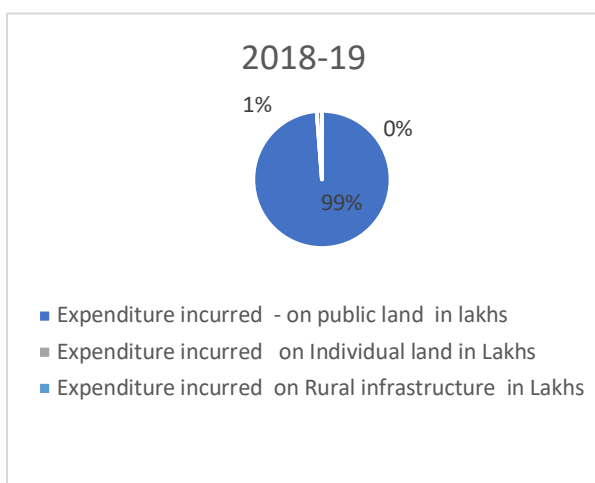
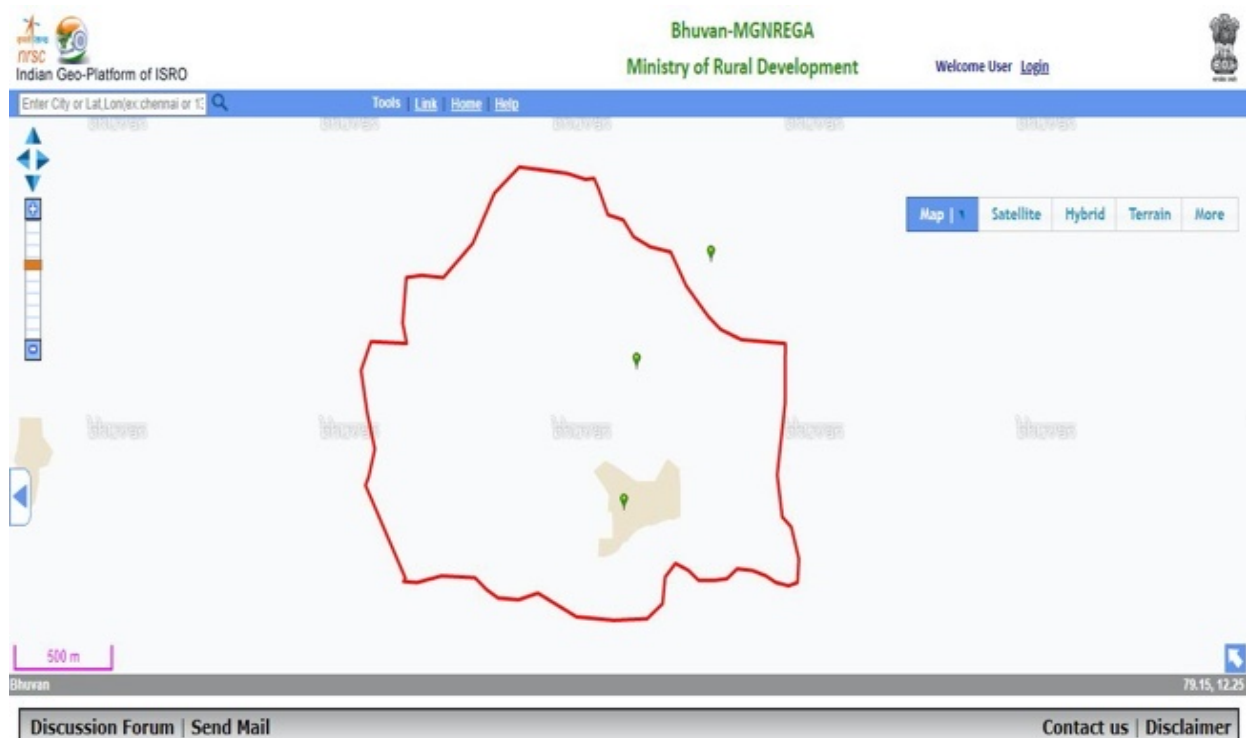


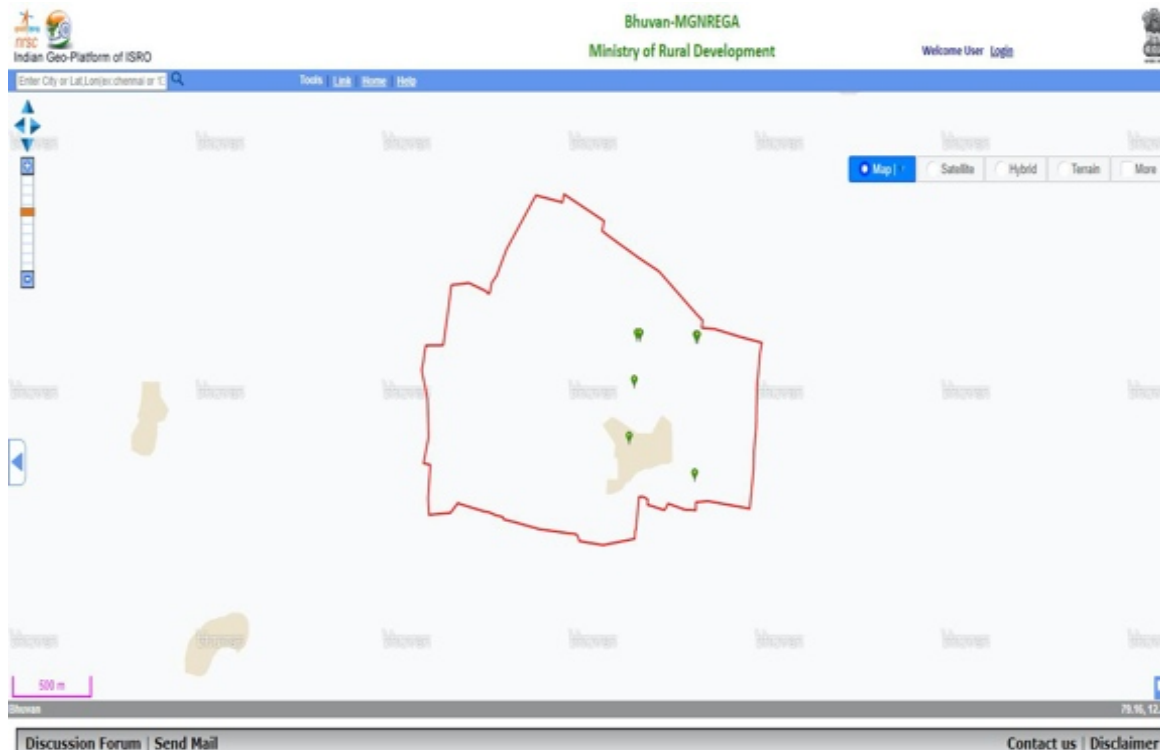
Table 6. Key indicators of works and expenditure in 2018-19 and 2021-22 in Namianthal GP, Kelpennathur block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	21	44
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	10	31
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	17.06	26.91

4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	1.78
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.21	1.45
6	Total number of NRM works completed/on-going	5	4
7	Total NRM Works from CWRM plan for three years	-	150
8	Total Non-NRM works from CWRM plans for three years	-	116
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	-	299
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	-	0
11	No of Works in GIS plan ongoing (R28.3)		1
12	Average number of days employment provided per households	35.35	35.35
13	Person days generated so far	12,727	14,916
14	Total number of works taken up (new + spill over)	19	27

Map 2. So Nammanthal Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



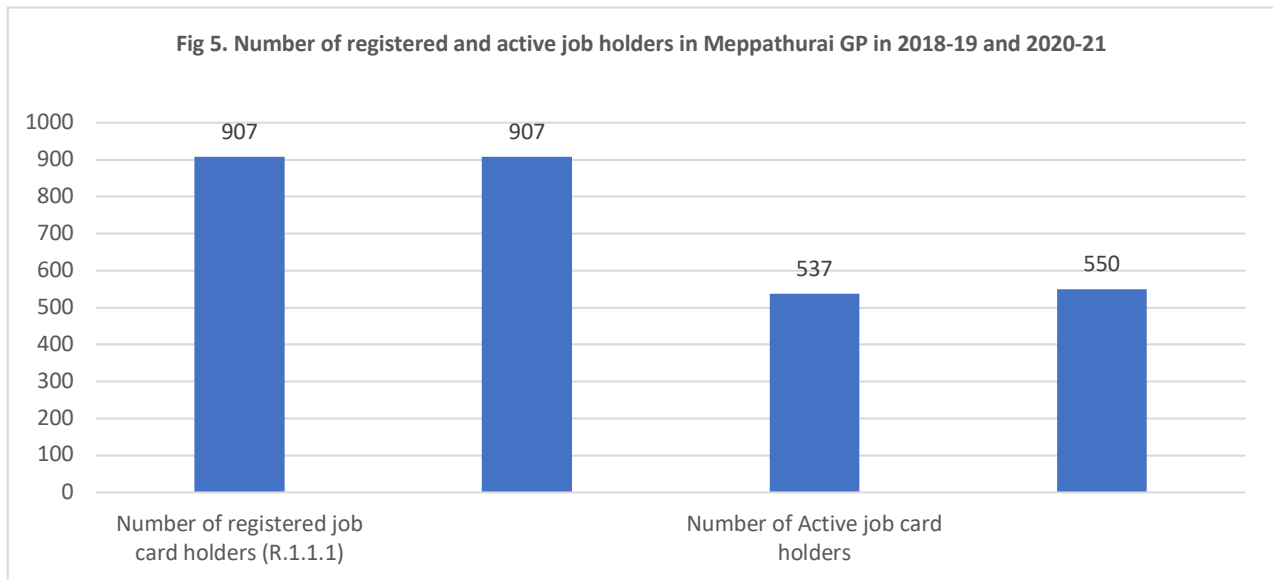


3. Meppathurai GP, Thurunjapuram Block

Meppathurai gram panchayat in Thurunjapuram block It has 366 households and 1493 persons according to Census of India 2011. The total geographical area of the GP is 796 Ha, of which 26% is under irrigation and 10% under rainfed cultivation systems. The soil is fine loamy in texture with equal proportion of area under slightly acidic to moderately alkaline condition. Paddy is the main crop under irrigation, more than 97% is under wetland paddy and ground water is the only source of irrigation. The GP is already under over exploited in ground water status.

Under MGNREGS, between 2018-19 and 2021-22, there was not much difference in the number of registered job card holders. Besides, in this period, there was a marginal increase in the active job card holders to the total registered job card holders (Fig 5) . There was no change noticed among SC and ST job card holders while slight change was observed among women who sought employment. With reference to percentage of members who has completed the 100 days of employment also, there was no difference. There was a big difference was noticed in the number of works undertaken under NRM and non-NRM category. During 2018-19 it was only 25 works,

however, it was increased almost three times i.e. 105 works in 2021-22. Similarly, on the number of works undertaken under the three categories; public and common land, individual works and rural infrastructures, 35% increase was observed in 2021-22 compared to 2018-19. The variation in the number of NRM works to the total number of works, there was stark difference within these three years. In fact, it was higher (60%) in 2018-19 and reduced to 41% during 2021-22. Also, Comparing the proportion of expenditure invested among the three categories of works, almost 100% of the budget was spent on works in the public and common land during 2018-19. But there was an obvious distribution of spending among the three works: 57% in public and common land, 29% in individual work category while it was 14% in rural infrastructures (Fig 6).



Using CWRM framework, 196 NRM works and 296 non-NRM works were identified in 2021-22. 135 works were already uploaded in the D-29 database and still 301 works are to be uploaded in 2021-22. While in the average number of days of employment provided per households, it was higher (63.31 days) in the baseline period compared to the endline period of 2021-22 (41.94 days). Similarly, the new work and spill over works category, it was higher in 2018-19 (45) and low in 2021-22 (21). However, there was a higher number of person days completed in 2021-22 (18,741) compared to 16,652 in 2018-19 (Table 7).

Fig. 6. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Meppathurai, Thuriinjapuram block

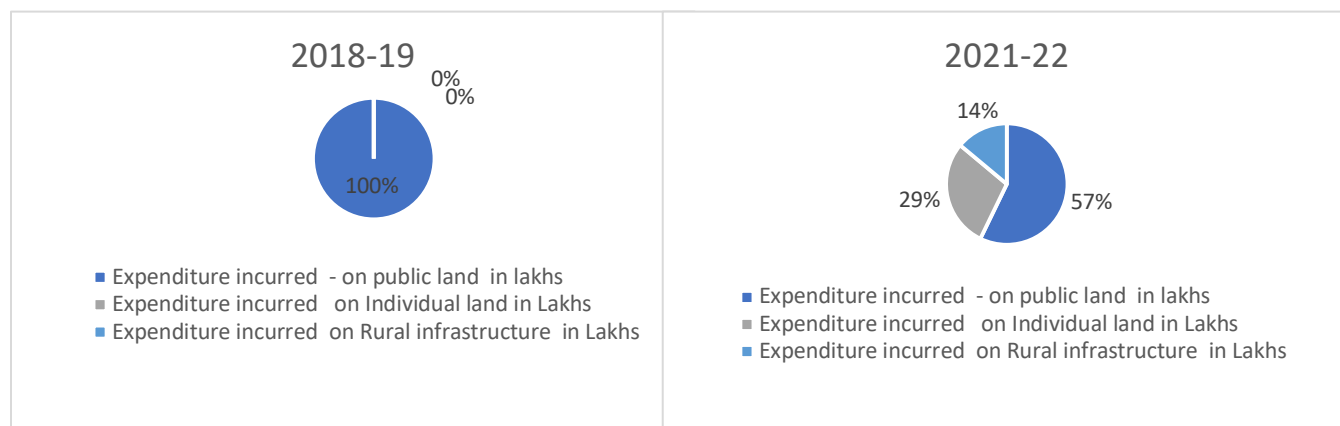
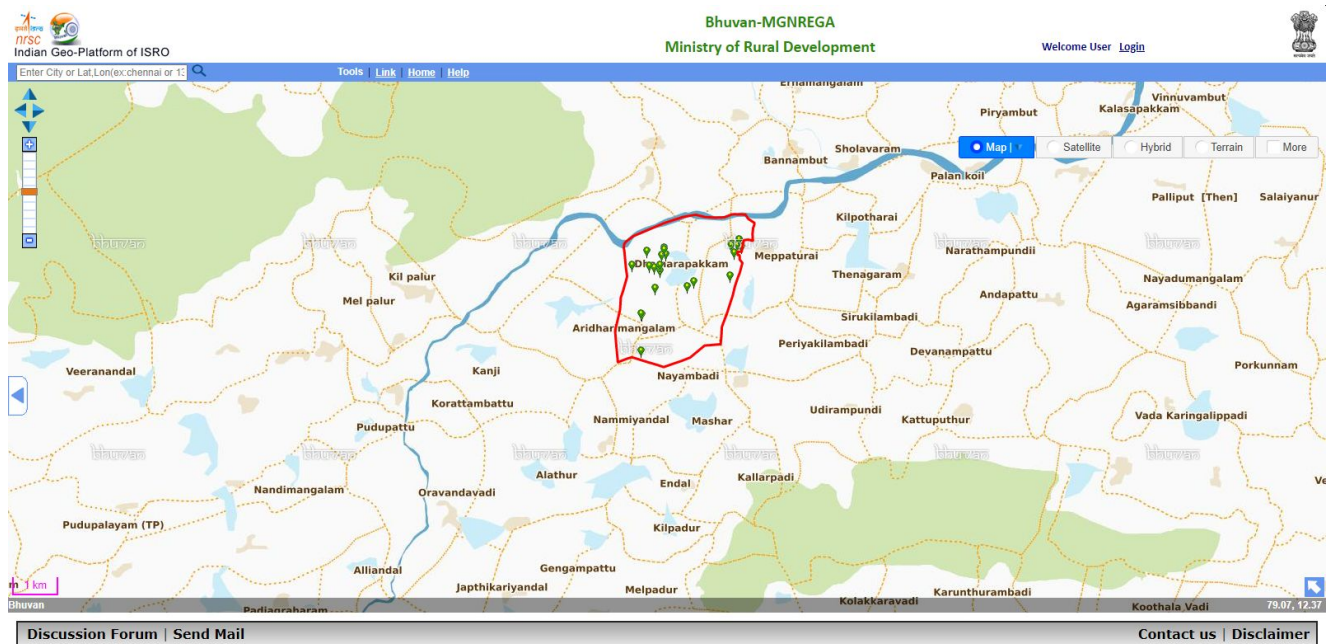
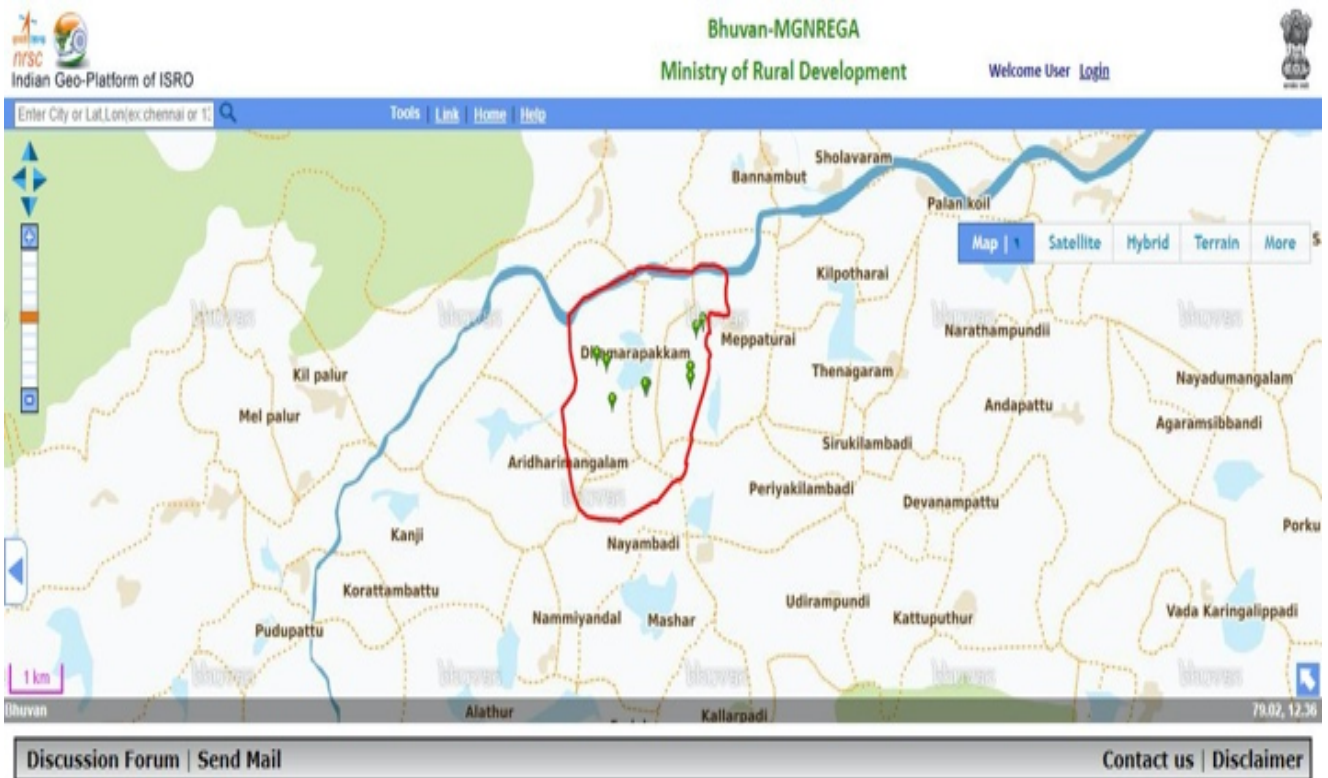


Table 7. Key indicators of works and expenditure in 2018-19 and 2021-22 in Meppathurai GP, Thuriinjapuram block

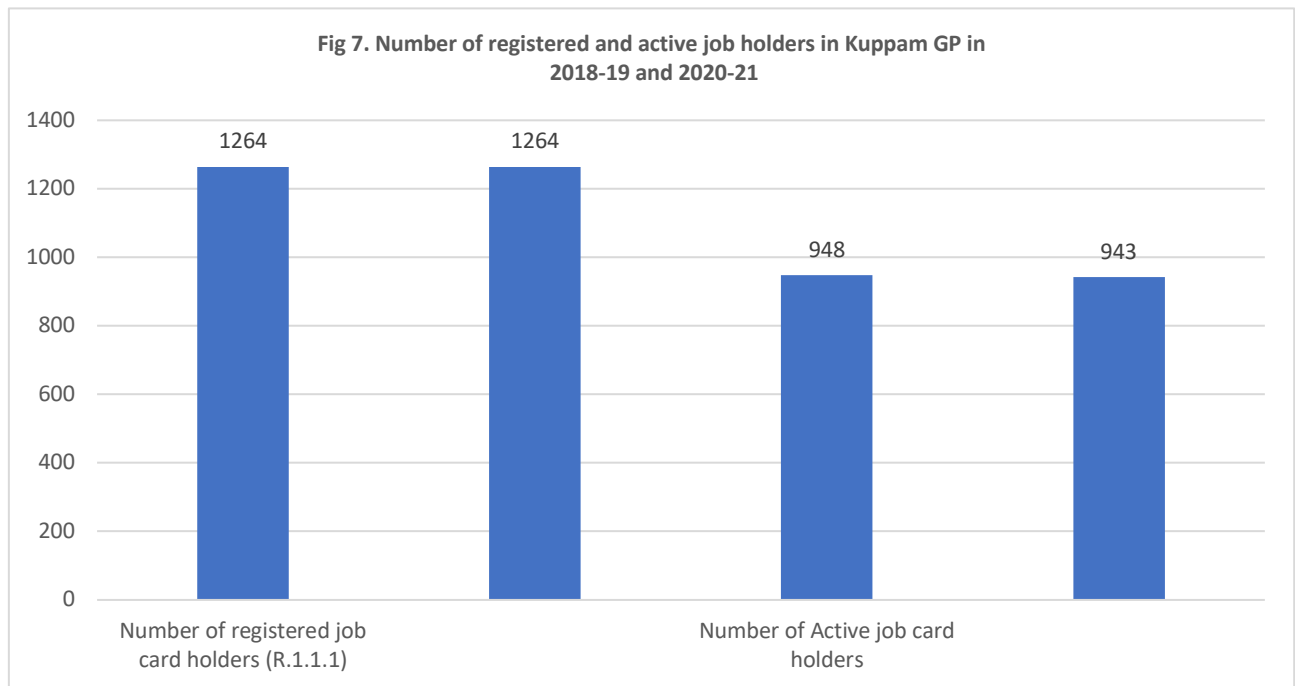
Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	25	105
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	15	43
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	27.88	21.05
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	10.63
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0	5.13
6	Total number of NRM works completed/on-going	6	13
7	Total NRM Works from CWRM plan for three years	-	196
8	Total Non-NRM works from CWRM plans for three years	-	240
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	-	135
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	-	301
11	No of Works in GIS plan ongoing (R28.3)		6
12	Average number of days employment provided per households	63.31	41.94
13	Person days generated so far	16,652	18,741
14	Total number of works taken up (new + spill over)	45	21

Map 3 Meppathurai Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



4. Kuppam GP, Polur Block

Kuppam is located in Polur block and has 1121 households with 4194 persons. The total geographical area of the GP is 640 ha, of the total area only 18% under irrigated and 36% of the total area under rainfed condition. Paddy is the major crop cultivated in more than 60% of the total area under irrigation. With regard to MGNREGS works, there was no change in the registered job card holder's status between the base and end line assessment period. But with regard to active job card holder's status, there was marginal decrease in 2021-22 compared to 2018-19 period. With reference to proportion of NRM works to the total works also higher by 5% (49%) in 2018-19 than 2021-22 (44%). The number of persons who have completed the 100 days of work is 4% i.e 29% in 2021-22 which is higher than the base year 2018-19 percentage of 0.3%.



Within total works 31% higher works were identified in 2021-22 compared to 2018-19. While in case of three different categories of NRM works it was 22% higher than the base year of 2018-19. With regard to expenditure pattern among the three different kind of works 98% was spent on works on public and common land in 2018-19 and while in 2021-22, it was 73% in public land, 18% in individual works and 9% in rural infrastructures (Fig 8).

Fig. 8. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Kuppam, Polur block

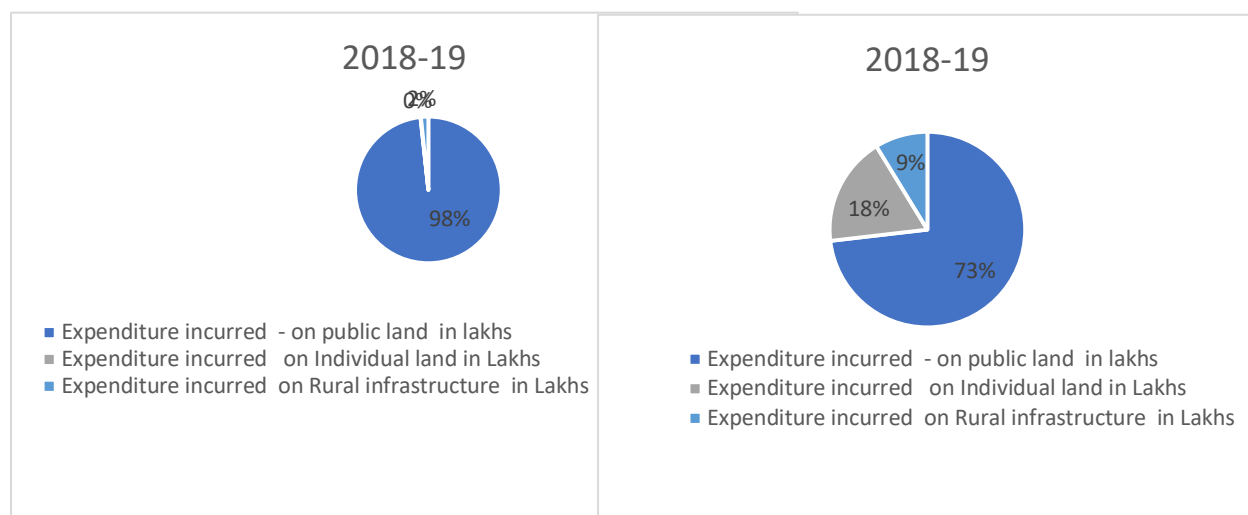
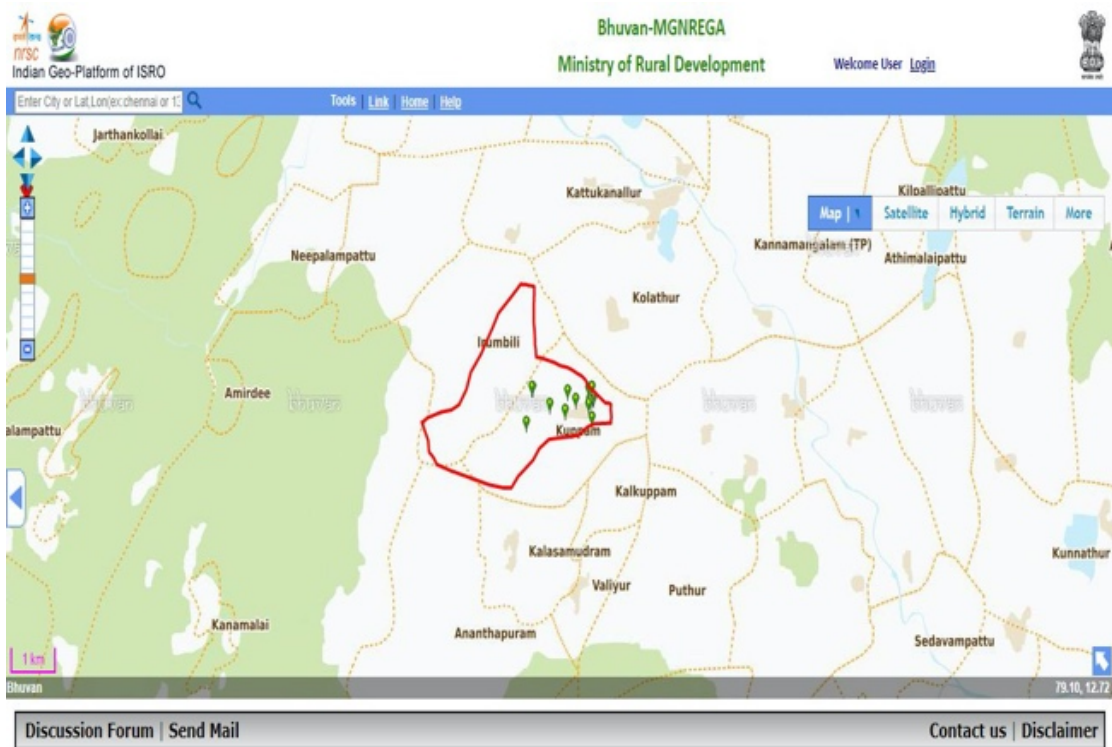


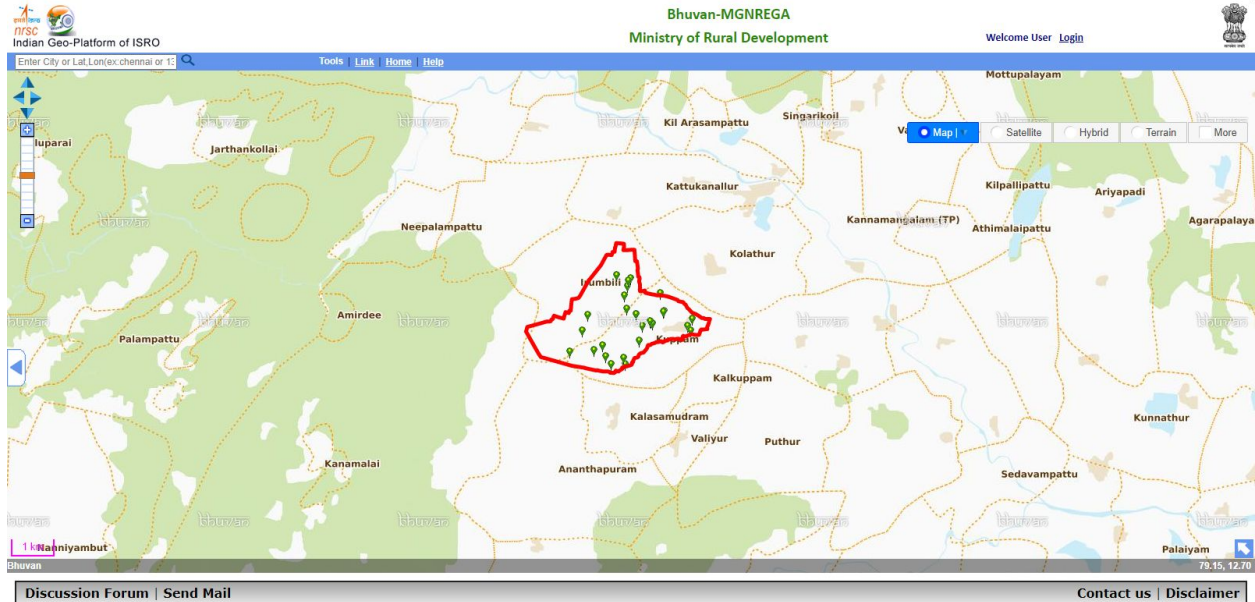
Table 8. Key indicators of works and expenditure in 2018-19 and 2021-22 in Kuppam GP, Polur block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	87	125
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	43	55
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	46.02	6.95
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0.05	1.72
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.76	0.83
6	Total number of NRM works completed/on-going	11	10
7	Total NRM Works from CWRM plan for three years	-	282
8	Total Non-NRM works from CWRM plans for three years	-	37
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	-	213
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	-	106
11	No of Works in GIS plan ongoing (R28.3)		10
12	Average number of days employment provided per households	44.75	53.45
13	Person days generated so far	29,043	39,604
14	Total number of works taken up (new + spill over)	68	58

With regard to number of activities, there is 40% increase in number of works (both NRM and non-NRM) between 2018-19 to 2021-22. Of this within NRM works 22% higher than 2018-19. Total number of NRM works identified by CWRM is 282 and non-NRM is 37. Till now 213 works were entered in D-29 and still 106 works are to be uploaded in the D-29. Number of works under GIS plan was 10 works in 2021-22. The average number of employment days is 16% higher in 2021-22 compared to 2018-19. Similarly, there was an increase in 27% of the person days generated in 2021-22 compared to 2018-19. The total number of new works and spill over is higher (68) in 2018-19 compared to 58 works in 2021-22.

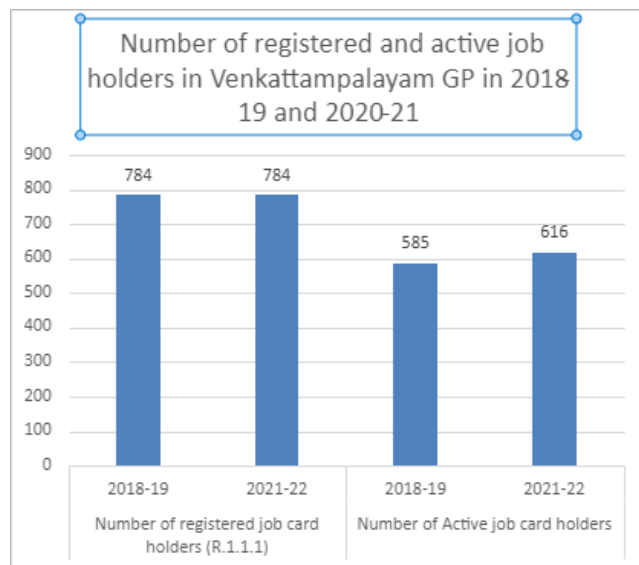
Map 4. Kuppam Gram Panchayat MGNREGA Map for 2018-19 and 2022-21





5. Venkattampalayam GP, Kalasapakkam Block

Venkattampalayam GP has 328 households and 1305 persons. It has the total geographical area of 160.4 Ha, of which 64% of the total area under irrigated condition and only 2% is under rainfed system. The soil is fine in texture and all the soils are moderate alkaline in condition. more than 80% of the irrigated area is under Paddy cultivation. In the MGNREGS works, there is no change in the registered job card holders, however



there is 5% increase in the active job card holders between 2018-19 to 2020-21. With regard to number of SC and ST job card holders there is no change in the participation while in women members participation, there is a slight reduction in the women's participation by 2% in 2021-22 compared to 2018-19. There is not much change in the percentage of card holders who have completed 100 days between these years. It is important to note that there are lesser number of non NRM and NRM works undertaken in in 2021-22 compared to 2018-19 and similar trend was noticed in NRM works also.

With regard to expenditure among different categories of NRM work in 2018-19, about 98% of the budget was spent on works under public and common land. However, in 2021-22 this has been changed. 59% was spent on public and common land, 31% under individual activities and 10% under rural infrastructures (Fig 10).

Fig 10. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Venkattampalayam, Kalasappakkam block

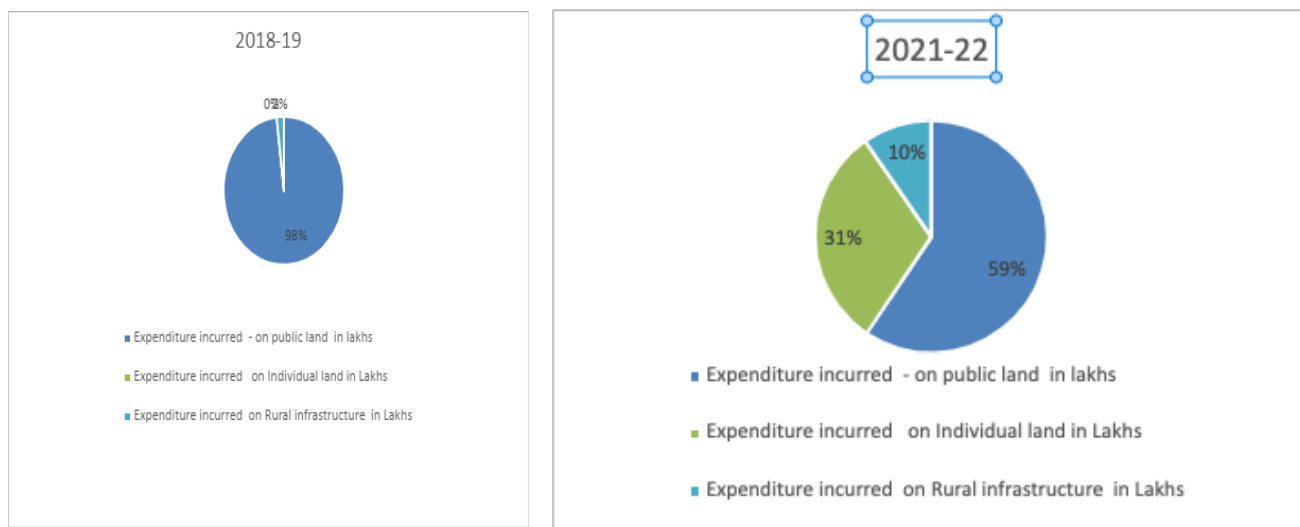


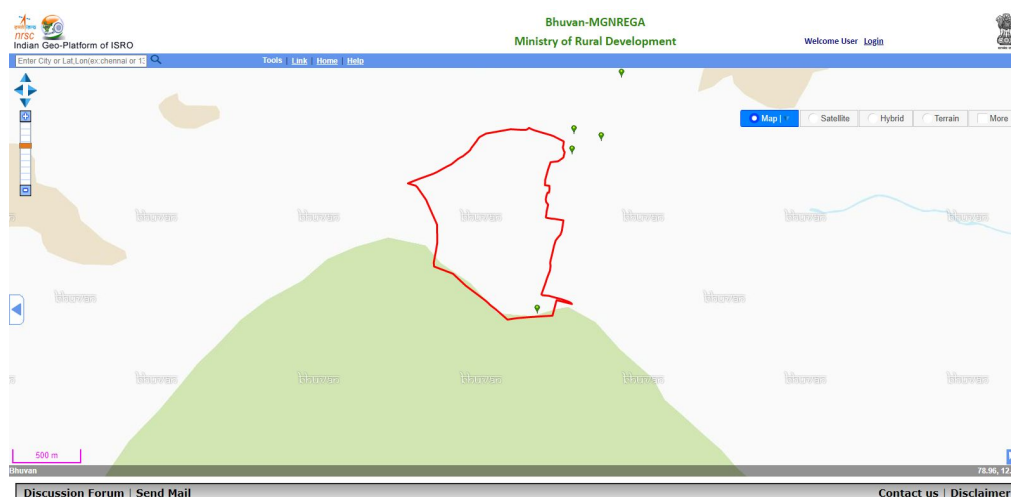
Table 9. Key indicators of works and expenditure in 2018-19 and 2021-22 in Venkittapalayam GP, Kalasappakkam block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	52	42
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	42	20
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	45.64	6.48
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	3.38
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.89	1.05
6	Total number of NRM works completed/on-going	28	9
7	Total NRM Works from CWRM plan for three years	0	143
8	Total Non-NRM works from CWRM plans for three years	0	31
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	177

10	No.of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	0
11	No of Works in GIS plan ongoing (R28.3)	0	1
12	Average number of days employment provided per households	77.15	69.06
13	Person days generated so far	25,538	24,516
14	Total number of works taken up (new + spill over)	51	37

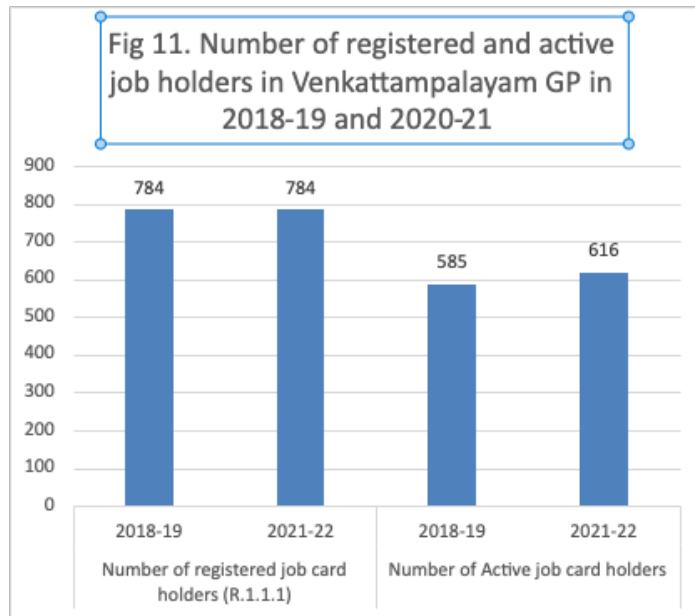
The total number of works identified in the CWRM is 143 NRM works and 31 non-NRM works of which 177 works were uploaded in D-29 and there is no pending works to be uploaded in year 2021-22. With regard to average number of days of employment provided to the households there was a reduction in 11.7% in 2021-22 compared to 2012-19, similar trend in reduction is noticed in the person days generated so far and the total number of works undertaken, both new and spill over (37%).

Map 5. Venkittampalayam Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



6. Karikkathur GP, Chetpet Block

Karikkathur Gram panchayat in Chetpet block, there was no change in the number of persons registered for the job in both 2018-19 and 2021-22. However, there was an increase of 4% in the active job card holders (Fig 11). With reference to percentage of SC and ST holders there was no change between these three years, while there was a reduction of 4% in 2021-22. In both the study years, the number of members who have completed 100 days of employment remains more or less (one and less than one percentage). In case of budget, 69%



was spent on public and common land activities, 30% was on individual assets and 1% on rural infrastructures in 2018-19. While in 2021-22 it was 83%, 14% individual works and 3% were on rural infrastructures.

Fig 12. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Karikathur, Chetpet block

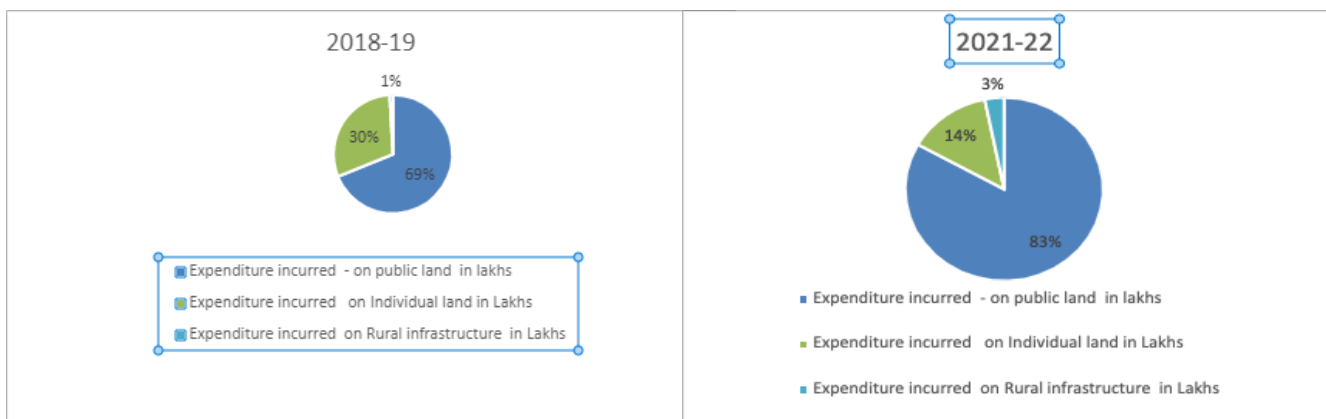
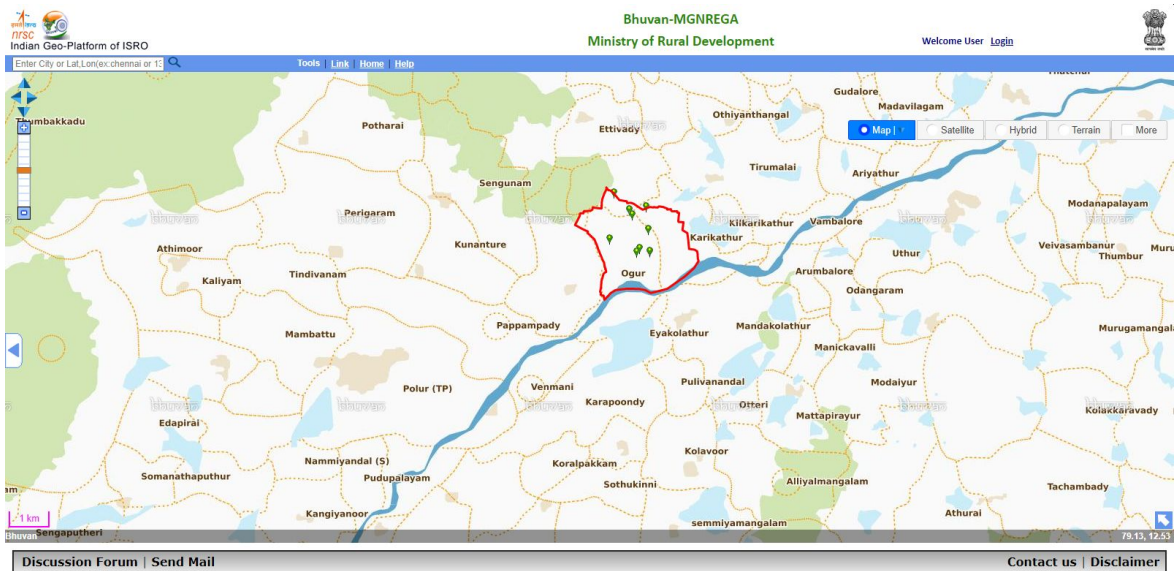
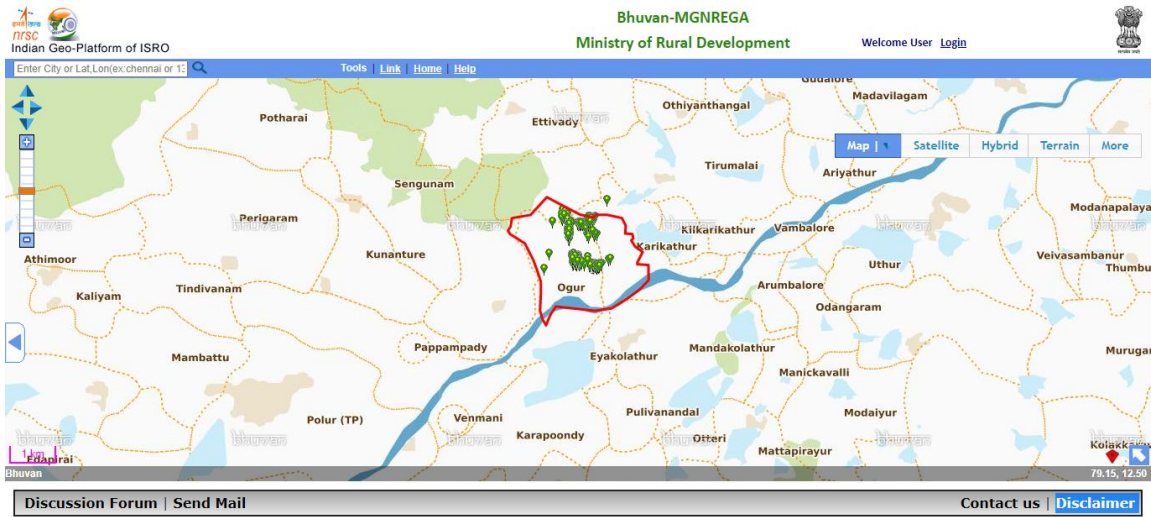


Table 10. Key indicators of works and expenditure in 2018-19 and 2021-22 in Karikathur GP, Chetpet block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	460	100
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	436	62
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	42.15	20.76
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	18.5	3.43
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.55	0.79
6	Total number of NRM works completed/on-going	13	8
7	Total NRM Works from CWRM plan for three years	0	271
8	Total Non-NRM works from CWRM plans for three years	0	310
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	126
10	No.of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	455
11	No of Works in GIS plan ongoing (R28.3)	0	6
12	Average number of days employment provided per household	68.09	66.49
13	Person days generated so far	31,932	32,912
14	Total number of works taken up (new + spill over)	444	62

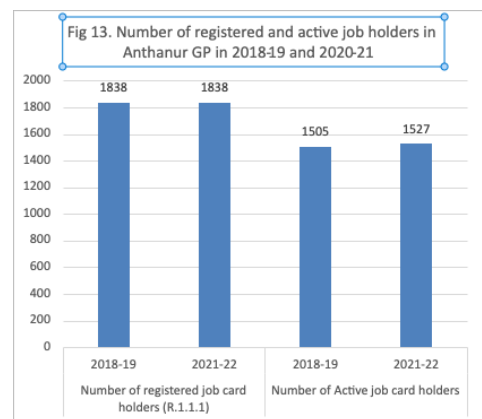
There was a noticeable difference between number of NRM and non NRM works between 2018-19 and 2021-22, it was 460 works in base year and 100 in endline year. Similarly in NRM works also it was 100 and 62 respectively. The number of NRM works identified in CWRM is 271 and 310 non NRM works and 126 works are entered in D-29 and remaining 455 works are to be uploaded in 2021-22. The on-going works in GIS plan was 6 and total number of work taken up including new and spill over was higher in base year (444) compared to 62 works in 2021-22. Similarly the average number of days of employment provided per household was high (68.09) in 2018-19 while it was slightly low in 2021-22 (66.49). In case of person days generated alone, it was higher in 2021-22 (32912) and lesser in 2018-19 (31932).

Map 6. Karikathur Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



7. Anthanur GP, Chengam Block

Anthanur Gram panchayat in Chengam block there was no change in the number of registered job card holders and there was a very marginal increase in the active job card holders between 2018-19 to 2021-22. The active job card holders to the total registered job card holders were also not different between these two years. With regard to



percentage of SC and ST card holders there was no change while in case of percentage of women there was a reduction in one percent in 2021-22. The percentage of households completed 100 days employment was also marginally reduced in 2021-22 compared to 2018-19. With regard to proportion of NRM works compared to total works, it was only 37% in 2018-19 while it increased considerably to 95%. The total number of works (356 works in 2021-22 as against 33 works in 2018-19) and NRM works (338 in 2021-22 and 33 in 2018-19 identified were also significantly higher in 2021-22.

With regard to budget spent, in 2018-19 it was 89% only in public and common works, 9% in rural infrastructure and 2% in individual works. While it was 66% for public and common works, 25% in individual works and 9% in rural infrastructure during 2021-22 (Fig 13).

Fig 14. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Anthanur, Chetpet block

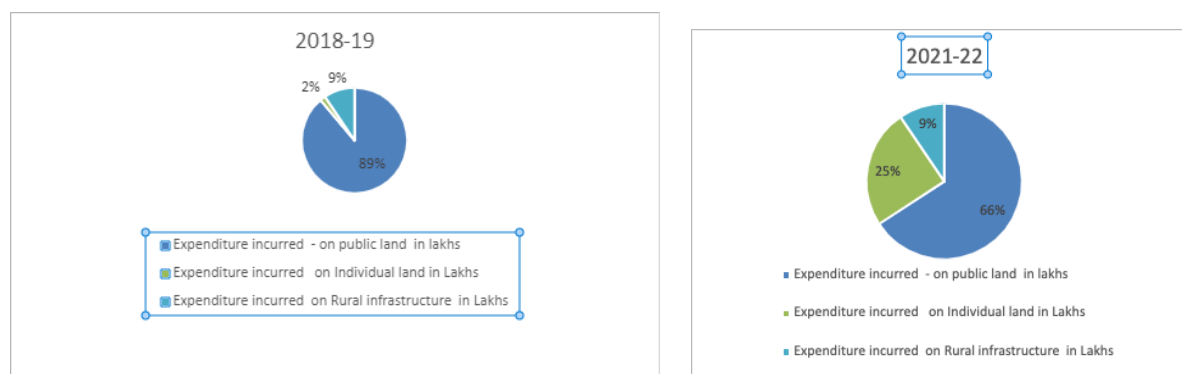


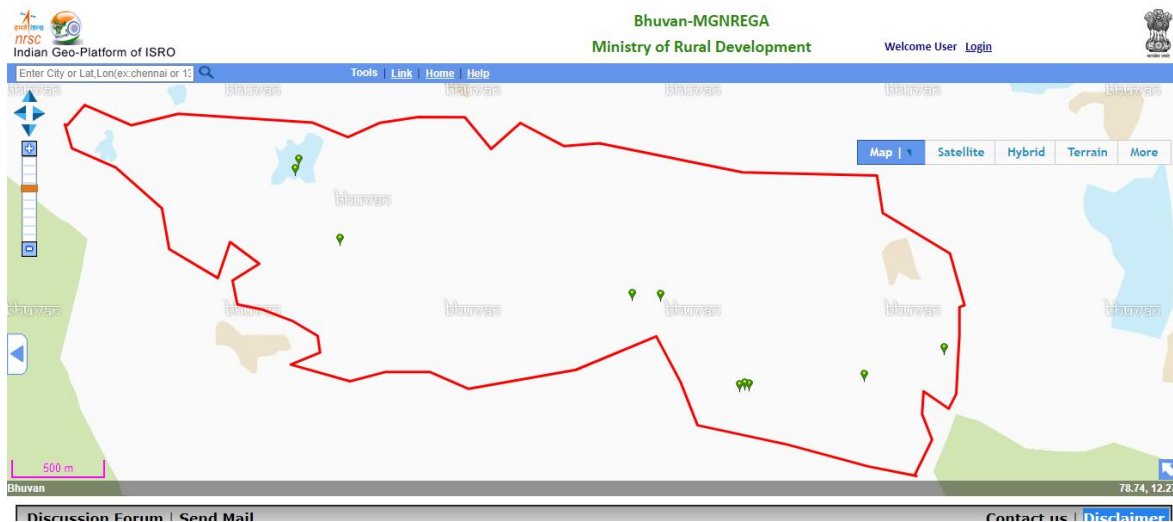
Table 10. Key indicators of works and expenditure in 2018-19 and 2021-22 in Anthaur GP, Chengam block

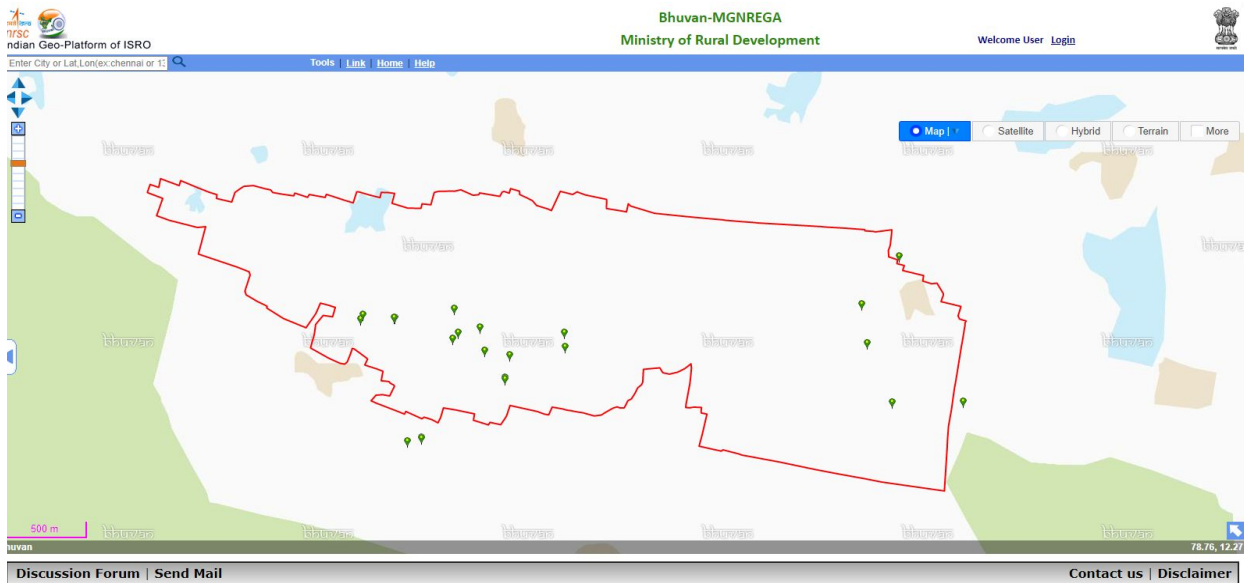
Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	90	356
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	33	338
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	41.17	37.18
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0.77	13.94

5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	4.39	5.37
6	Total number of NRM works completed/on-going	10	10
7	Total NRM Works from CWRM plan for three years	0	458
8	Total Non-NRM works from CWRM plans for three years	0	549
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	949
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	58
11	No of Works in GIS plan ongoing (R28.3)	0	263
12	Average number of days employment provided per household	30.69	31.3
13	Person days generated so far	25,166	28,800
14	Total number of works taken up (new + spill over)	82	345

The number of NRM works identified in CWRM is 458 and 549 non NRM works and 949 works are entered in D-29 and remaining 58 works are to be uploaded in 2021-22. The on-going works in GIS plan was 263 and total number of work taken up including new and spill over was higher in 2021-22 (345) compared to 82 works in 2018-19. Similarly the average number of days of employment provided per household was slightly high (31.30) in 2021-22 while it was 30.69 in 2018-19. In case of person days generated alone, it was higher in 2021-22 (28,800) and lesser by 13% in 2018-19 (25166).

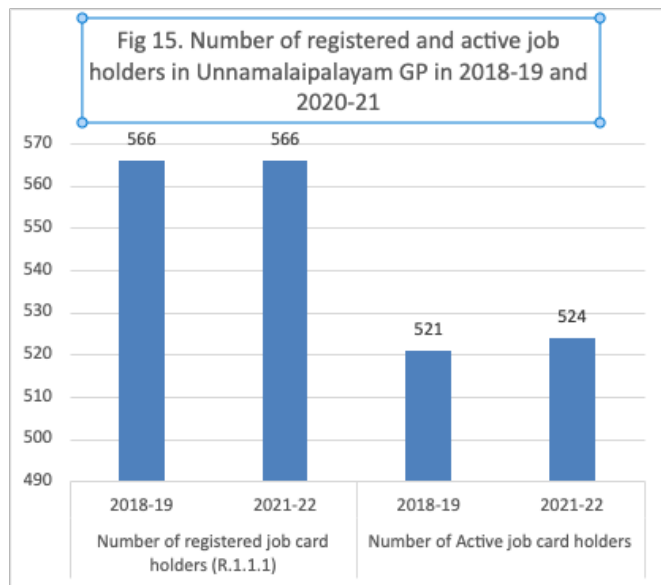
Map 7. Anthanur Gram Panchayat MGNREGA Map for 2018-19 and 2021-22





8. Unnamalaipalayam GP, Pudupalayam Block

The registered job card holders and number of active job card holders in Unnamalaipalayam Gram panchayat in Pudupalayam block are more or less same in the base line and end line study period. The proportion of active job card holders to the total registered job card holders were around 92-93 % in 2018-19 and 2021-22 respectively. With regard to number of SC, ST and women job card holders there is no change in the participation between 2021-22



and 2018-19. There was a reduction in the persons completed 100 days of work from 8 % to 5% in 2018-19 and 2021-22. There was no difference in total number of works in both the years, while in NRM works it was 52 in 2018-19 and 49 in 2021-22.

With regard to expenditure among different categories of NRM work in 2018-19, about 100% of the budget was spent on works under public and common land. However, in 2021-22 this has been changed. 82% was spent on public and common land, 17% under individual activities and 1% under rural infrastructures (Fig 16).

Fig 16. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Unnamalaipalayam GP, Pudupalayam Block



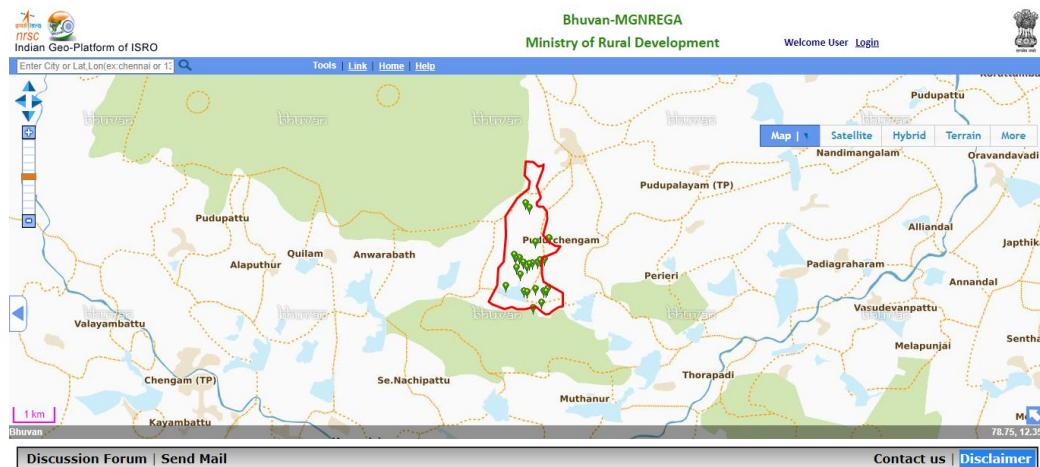
The number of NRM works identified in CWRM is 299 and 2 non NRM works and 183 works are entered in D-29 and remaining 118 works are to be uploaded in 2021-22. The on-going works in GIS plan was 11 and total number of work taken up including new and spill over was less in 2021-22 (51) compared to 58 works in 2018-19. Similarly the average number of days of employment provided per household was high (85) in 2018-19 while it was 69.9 in 2021-22. In case of person days generated alone, it was higher in 2018-19 (23,971) and lesser by 16% in 2021-22 (20261).

Table 11. Key indicators of works and expenditure in 2018-19 and 2021-22 in Unnamalaipalayam GP, Pudupalayam block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	70	70
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	52	49
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	41.2	33.18
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	7.1
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.18	0.35
6	Total number of NRM works completed/on-going	31	6

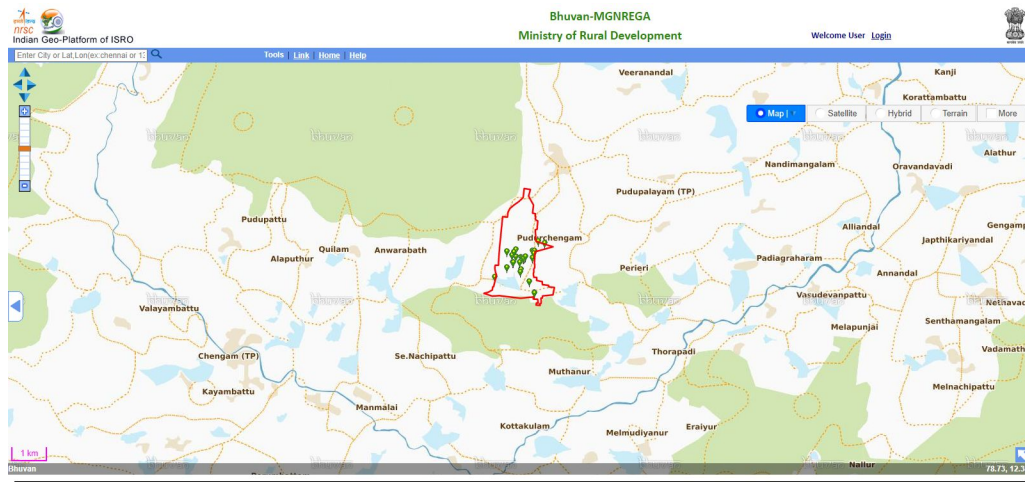
7	Total NRM Works from CWRM plan for three years	0	299
8	Total Non-NRM works from CWRM plans for three years	0	2
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	183
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	118
11	No of Works in GIS plan ongoing (R28.3)	0	11
12	Average number of days employment provided per household	85	69.9
13	Person days generated so far	23,971	20,621
14	Total number of works taken up (new + spill over)	58	51

Map 8. Unnamalaipalayam Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



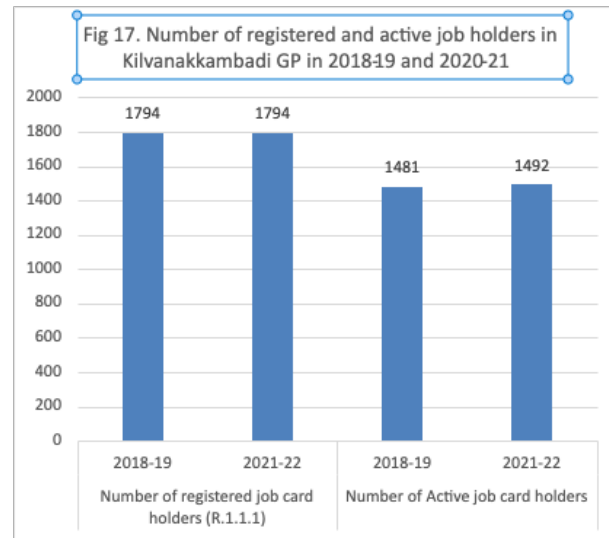
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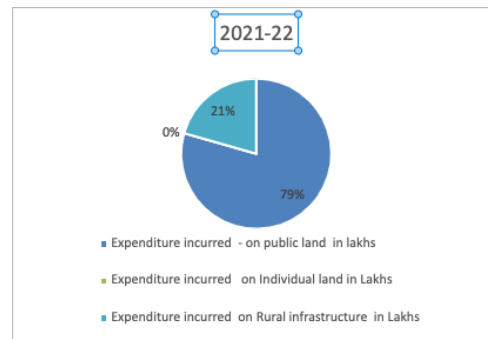
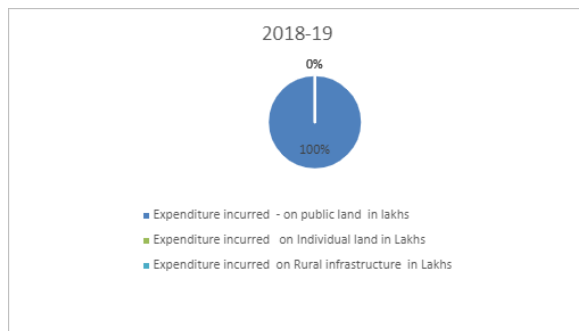
9. Kilvanakkambadi GP, Thandrampet Block

In the Kilvanakkambadi gram panchayat in Thandrampet block there was no change in the number of registered job card holders and active job card holders between 2018-19 to 2021-22. With regard to percentage of SC, ST card holders and women there was no noticeable change between these two years of comparative study. There was no visible change in the percentage of households completed 100 days employment in 2021-22



compared to 2018-19. With regard to proportion of NRM works compared to total works, it was only 21% in 2018-19 while it increased considerably to 64%. The total number of works (58 works in 2021-22 as against 106 works in 2018-19) and NRM works (37 in 2021-22 and 22 in 2018-19) identified were lower than 2018-19. With regard to budget spent, in 2018-19, 100% was spent on only in public and common works,. In case of 2021-22, it was 79% for public and common works and 21 % in individual works (Fig 14).

Fig 18. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Kilvanakkambadi GP, Thandrampet Block



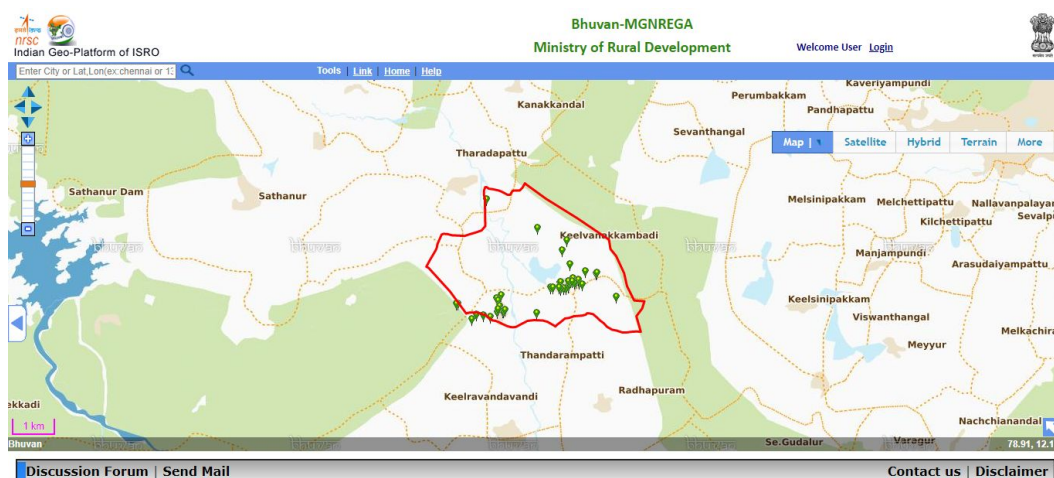
The number of NRM works identified in CWRM was 1045 and 340 non NRM works. 434 works are entered in D-29 and remaining 951 works are to be uploaded in 2021-22. The on-going works in GIS plan was 3 and total number of work taken up including new and spill over was less in 2021-22 (64) compared to 105 works in 2018-19. Similarly, the average number of days of employment provided per household was higher (22.08) in 2018-19 while it was 20.4 in 2021-

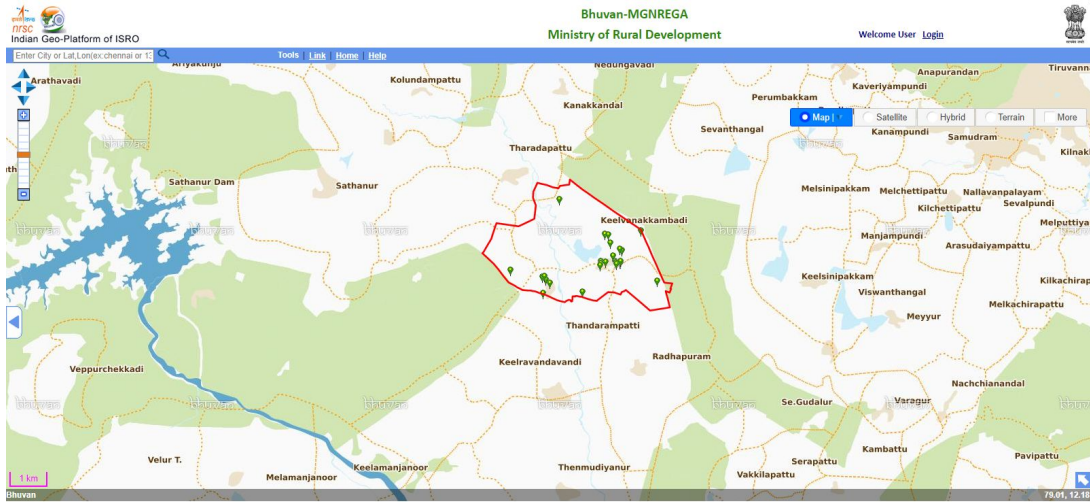
22. In case of person days generated alone, it was higher in 2021-22 (19379) and lesser by 16% in 2018-19 (17136).

Table 12. Key indicators of works and expenditure in 2018-19 and 2021-22 in Kilvanakkambadi GP, Thandrapet Block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	106	58
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	22	37
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	11.12	6.75
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	0
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0	1.75
6	Total number of NRM works completed/on-going	9	6
7	Total NRM Works from CWRM plan for three years	0	1045
8	Total Non-NRM works from CWRM plans for three years	0	340
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	434
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	951
11	No of Works in GIS plan ongoing (R28.3)	0	3
12	Average number of days employment provided per households	22.08	20.4
13	Person days generated so far	17,136	19,379
14	Total number of works taken up (new + spill over)	105	64

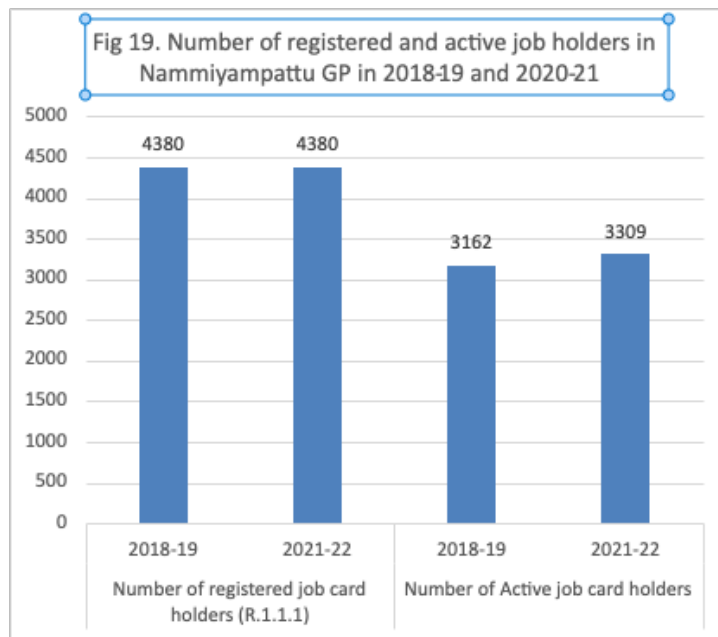
Map 9 .Kilvanakkampadi Gram Panchayat MGNREGA Map for 2018-19 and 2021-22





10. Nammiyampattu GP, Jawadhumalai Block

Nammiyampattu gram panchayat in Jawadhu malai block reported that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was an increase in active job card holders by 4% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC



and women card holders there was no change, however vast change in the participation of ST card holders noticeable between these two years of comparative study, from 10 % in 2018-19 to 99.8% in 2021-22. There was no visible change in the percentage of households completed 100 days employment in 2021-22 compared to 2018-19. With regard to proportion of NRM works compared to total works, it was only 59% in 2018-19 while it increased considerably to 85%. The total number of works (1108 works in 2021-22 as against 495 works in 2018-19) and NRM works (937 in 2021-22 and 292 in 2018-19) identified in 2021-22 were higher than 2018-19. With regard

to budget spent, in 2018-19, 79% was spent in public and common works, 17% in individual works and 4% in rural infrastructures. While in case of 2021-22, it was 66% for public and common works, 32 % in individual works and 2% in rural infrastructures (Fig 20).

Fig 20. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Namiyapattu GP, Jawadhumalai Block



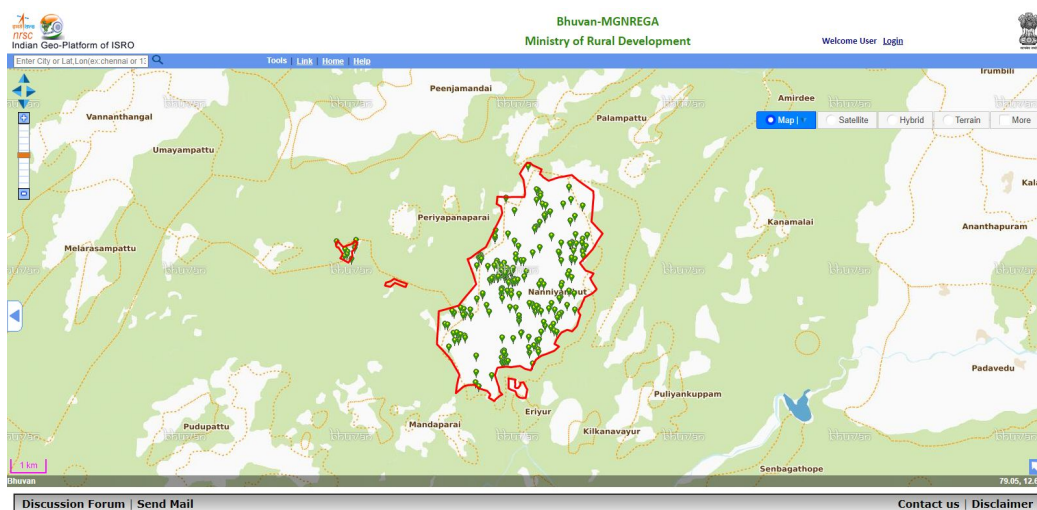
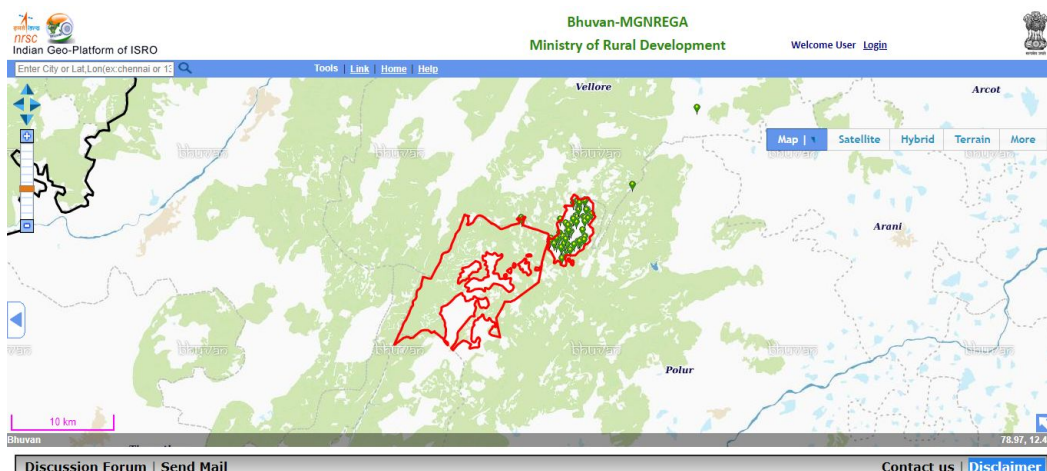
The number of NRM works identified in CWRM was 1910 and 7 non NRM works. 1237 works are entered in D-29 and remaining 640 works are to be uploaded in 2021-22. The on-going works in GIS plan was 130 and total number of work taken up including new and spill over was high in 2021-22 (608) compared to 408 works in 2018-19. Similarly, the average number of days of employment provided per household was higher (42.42) in 2018-19 while it was 39.5 in 2021-22. In case of person days generated alone, it was higher in 2021-22 (72515) and higher in 2018-19 (75,494).

Table 13. Key indicators of works and expenditure in 2018-19 and 2021-22 in Nammiyapattu, Jawadhumalai block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	495	1108
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	292	937
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	107.39	174.56
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	22.98	83.96
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	4.89	6.58

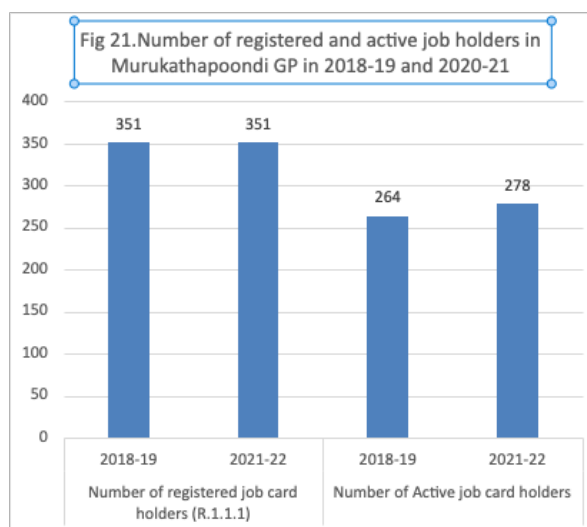
6	Total number of NRM works completed/on-going	251	172
7	Total NRM Works from CWRM plan for three years	0	1910
8	Total Non-NRM works from CWRM plans for three years	0	7
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	1237
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	680
11	No of Works in GIS plan ongoing (R28.3)	0	130
12	Average number of days employment provided per households	42.32	39.5
13	Person days generated so far	75,494	72,515
14	Total number of works taken up (new + spill over)	408	608

Map10.Nammiyampattu Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



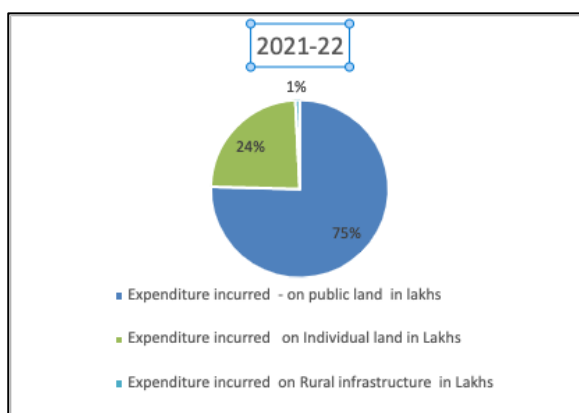
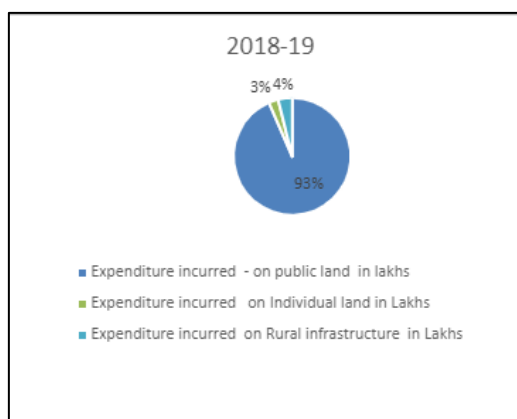
11. Murukathapoondur GP, Cheyyur Block

Murukathapoondur gram panchayat in Cheyyur block reported that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was an increase in active job card holders by 5% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC



card holders there was no change, however slight change in the participation of ST and women card holders was noticed between these two years of comparative study. There was no visible change in the percentage of households completed 100 days employment in 2021-22 compared to 2018-19. With regard to proportion of NRM works compared to total works, it was 60% in 2018-19 while it decreased considerably to 43%. The total number of works (49 works in 2021-22 as against 43 works in 2018-19) and NRM works (26 in 2021-22 and 21 in 2018-19) identified in 2021-22 were lower than 2018-19. With regard to budget spent, in 2018-19, 93% was spent in public and common works, 4% in individual works and 3% in rural infrastructures. While in case of 2021-22, it was 75% for public and common works, 24% in individual works and 1% in rural infrastructures (Fig 22).

Fig 22. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Murukathapoondur gram panchayat in Cheyyur block

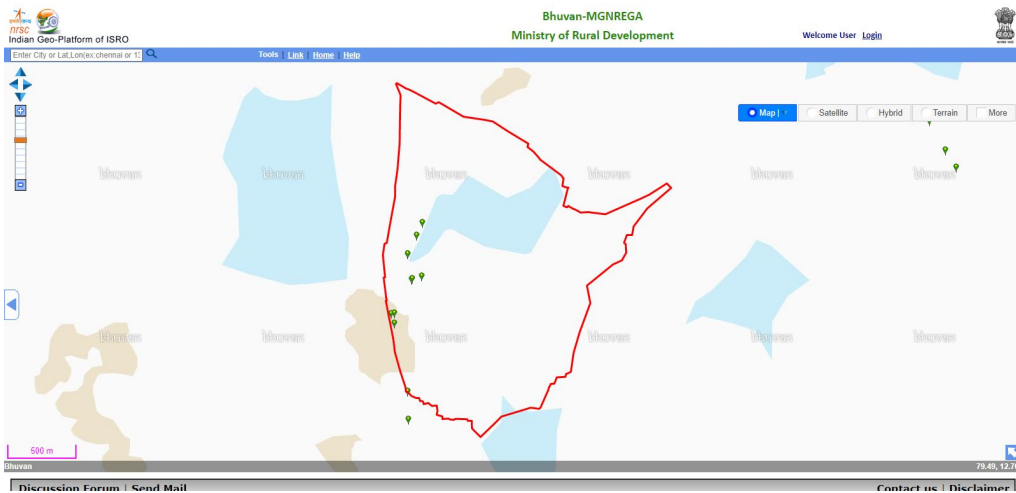
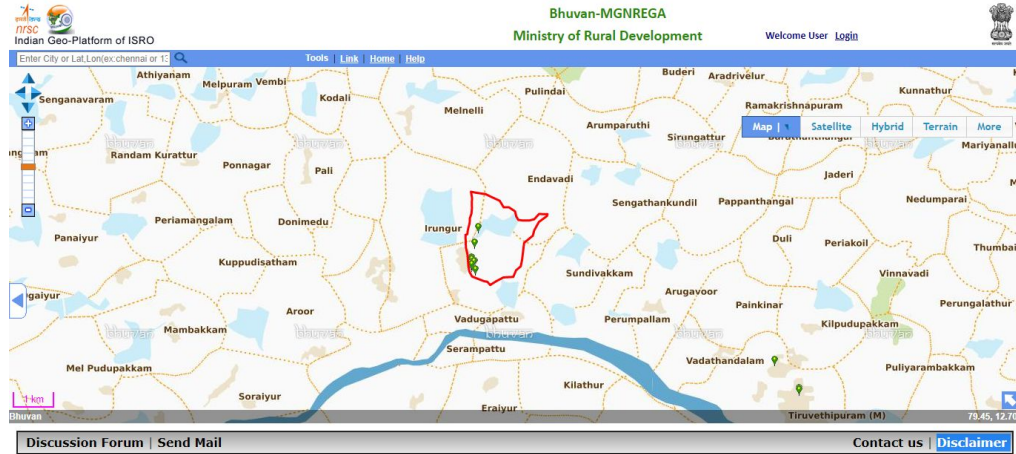


The number of NRM works identified in CWRM was 107 and 153 non NRM works. 117 works are entered in D-29 and remaining 143 works are to be uploaded in 2021-22. The on-going works in GIS plan was 5 and total number of work taken up including new and spill over was almost same in 2021-22 (37) compared to 35 works in 2018-19. The average number of days of employment provided per household was lower (75.90) in 2018-19 while it was 82.50 in 2021-22. In case of person days generated alone, it was higher in 2021-22 (18380) and higher in 2018-19 (15863).

Table 14. Key indicators of works and expenditure in 2018-19 and 2021-22 in Murukathapoondu gram panchayat in Cheyyur block

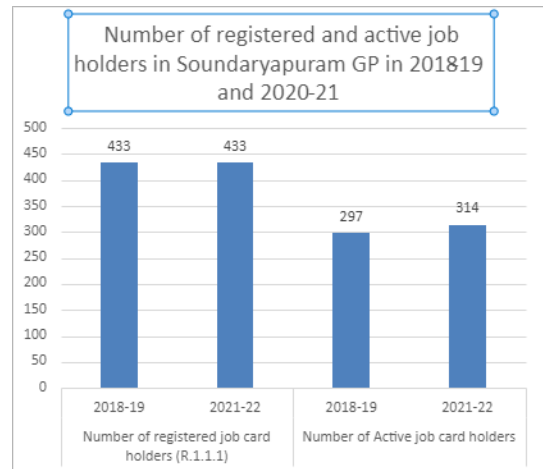
Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	43	49
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	26	21
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	26.16	10.46
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0.74	3.3
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	1.08	0.11
6	Total number of NRM works completed/on-going	12	8
7	Total NRM Works from CWRM plan for three years	0	107
8	Total Non-NRM works from CWRM plans for three years	0	153
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	117
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	143
11	No of Works in GIS plan ongoing (R28.3)	0	5
12	Average number of days employment provided per households	75.9	82.05
13	Person days generated so far	15,863	18,380
14	Total number of works taken up (new + spill over)	35	37

Map11. Murukathapoondu gram panchayat MGNREGA Map for 2018-19 and 2021-22



12. Soundayapuram GP, Anakkavoor Block

Soundayapuram gram panchayat in Anakkavoor block reported that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was an increase in active job card holders by 5% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC and ST



card holders there was no change, however slight change in the participation of women card holders was noticed between these three years of comparative study. There was visible change in the percentage of households completed 100 days employment in 2021-22 (14%) compared to 2018-19 (5%). With regard to proportion of NRM works compared to total works, it was 83% in 2018-19 while it decreased considerably to 67% in 2021-22. The total number of works (92 works in 2021-22 as against 129 works in 2018-19) and NRM works (62 in 2021-22 and 107 in 2018-19) identified in 2021-22 were lower than 2018-19. With regard to budget spent, in 2018-19, 86% was spent in public and common works, 13% in individual works and 1% in rural infrastructures. While in case of 2021-22, it was 64% for public and common works, 14% in individual works and 22% in rural infrastructures (Fig 24).

Fig 24. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Soundayapuram gram panchayat in Anakkavoor block

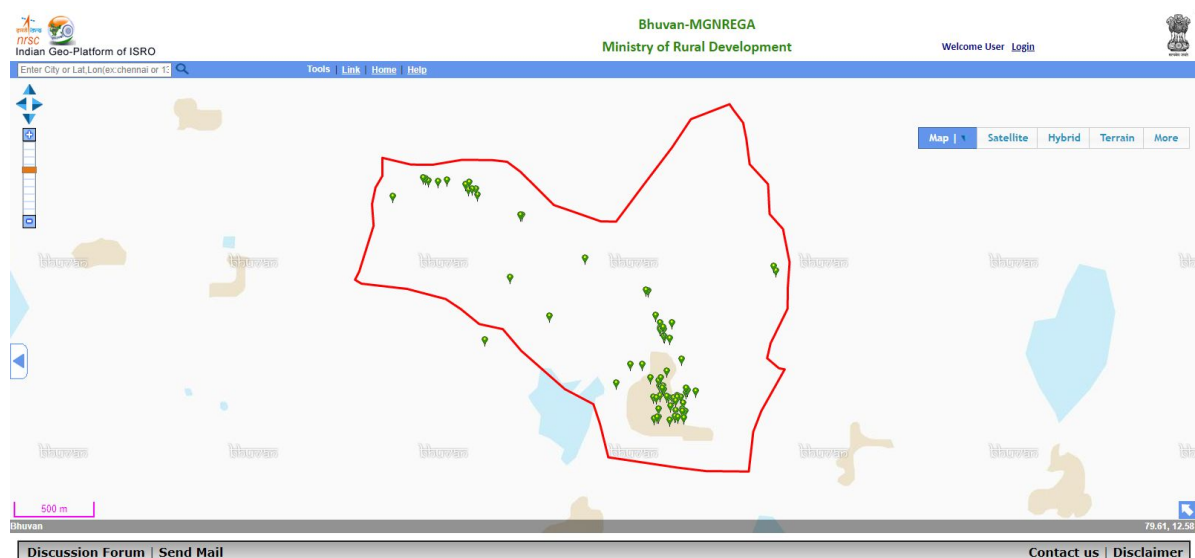


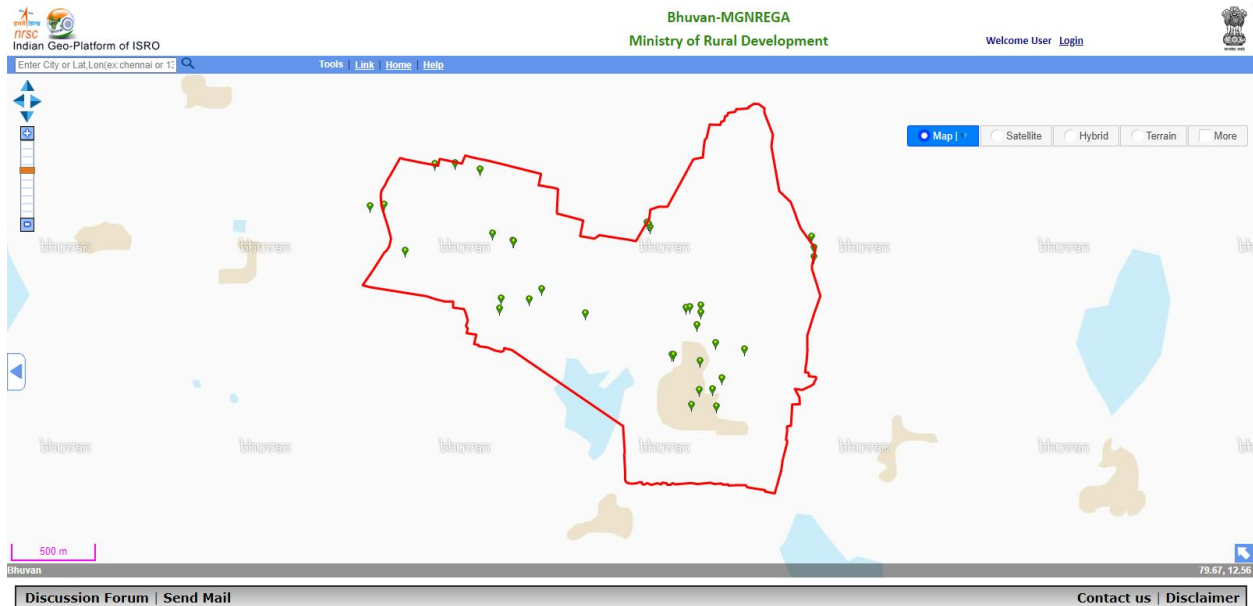
The number of NRM works identified in CWRM was 182 and 160 non NRM works. 160 works are entered in D-29 and remaining 109 works are to be uploaded in 2021-22. The on-going works in GIS plan was 3 and total number of work taken up including new and spill over was lower in 2021-22 (57) compared to 112 works in 2018-19. The average number of days of employment provided per household was lower (83.69) in 2018-19 while it was 85.07 in 2021-22. In case of person days generated alone, it was almost same in 2021-22 (19916) and in 2018-19 (19,481).

Table 15. Key indicators of works and expenditure in 2018-19 and 2021-22 in Soundayapuram gram panchayat in Anakkavoor block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	129	92
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	107	62
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	38.44	5.31
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0.42	1.77
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	5.57	1.17
6	Total number of NRM works completed/on-going	20	7
7	Total NRM Works from CWRM plan for three years	0	182
8	Total Non-NRM works from CWRM plans for three years	0	160
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	109
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	233
11	No of Works in GIS plan ongoing (R28.3)	0	3
12	Average number of days employment provided per households	83.69	85.07
13	Person days generated so far	19,919	19,481
14	Total number of works taken up (new + spill over)	112	57

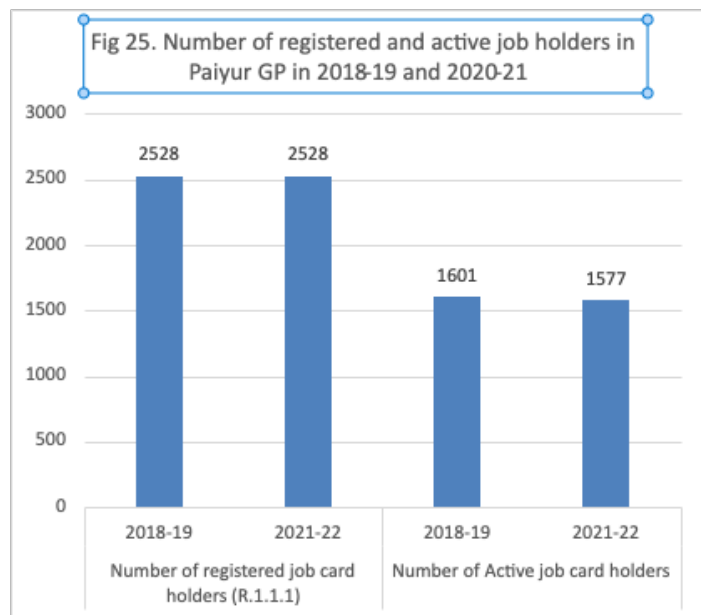
Map12. Soundayapuram Gram Panchayat MGNREGA Map for 2018-19 an 2021-22





13. Paiyur GP, Arni Block

Paiyur gram panchayat in Arni block reported that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was a decrease in active job card holders by 1% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC, ST and women job card holders there was no change



between these three years of comparative study. There was slight change in the percentage of households completed 100 days employment in 2021-22 (2%) compared to 2018-19 (1%). With regard to proportion of NRM works compared to total works, it was 54% in 2018-19 while it increased considerably to 90% in 2021-22. The total number of works (400 works in 2021-22 as against 39 works in 2018-19) and NRM works (359 in 2021-22 and 21 in 2018-19) identified in 2021-22 were higher than 2018-19. With regard to budget spent, in 2018-19, 99% was spent in

public and common works. While in case of 2021-22, it was 89% for public and common works, 2% in individual works and 9% in rural infrastructures (Fig 26).

Fig 26. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Paiyur gram panchayat in Arni block



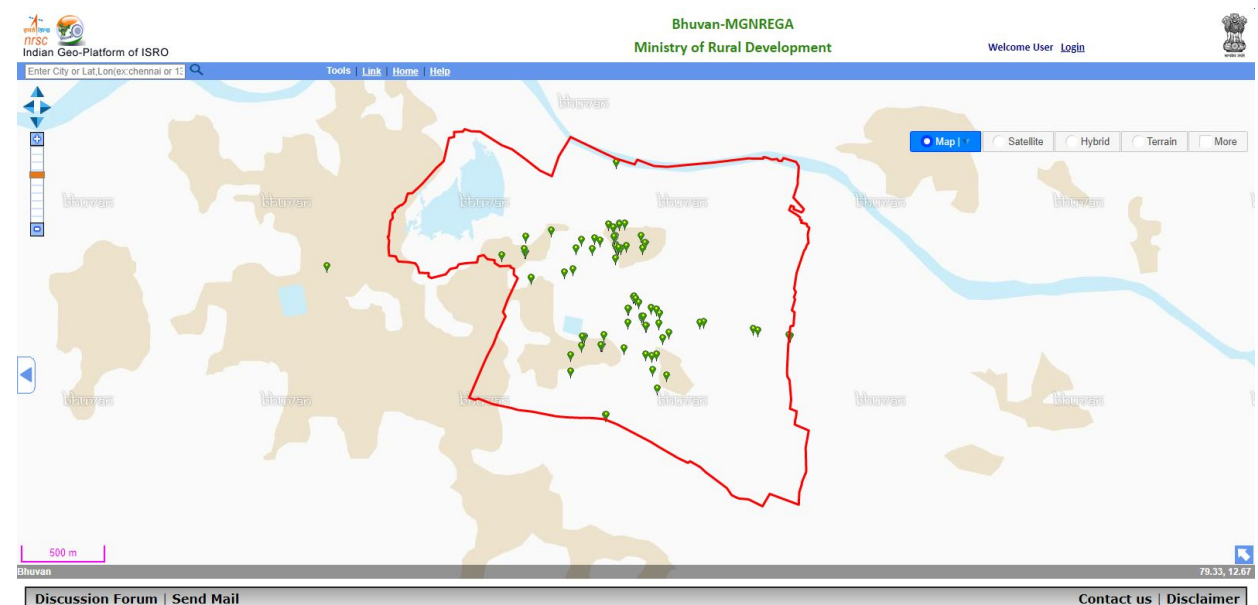
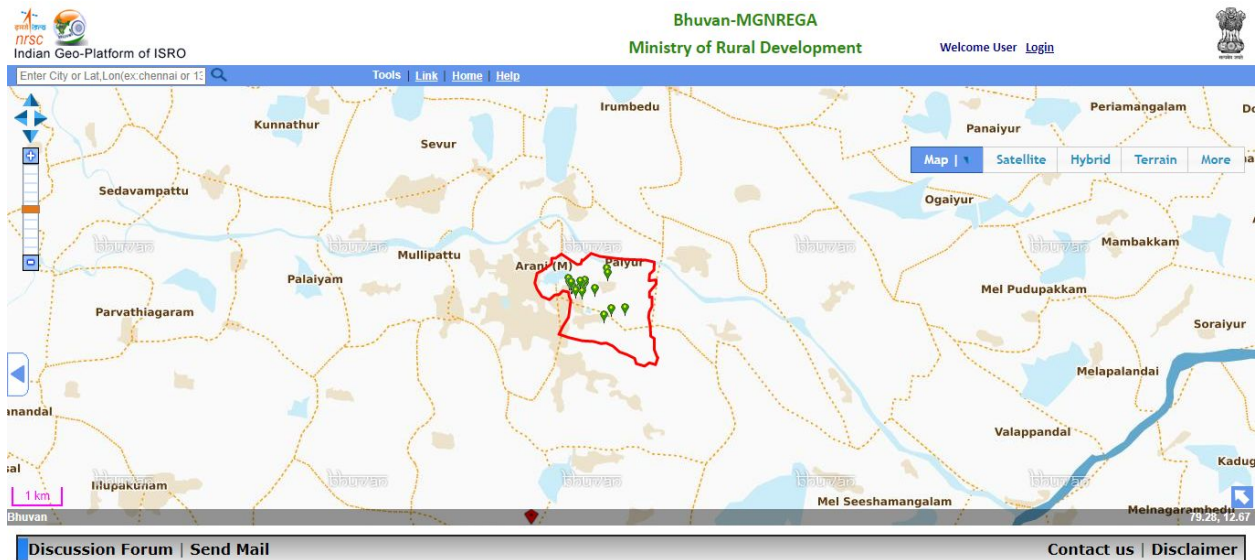
The number of NRM works identified in CWRM was 365 and 198 non NRM works. 347 works are entered in D-29 and remaining 216 works are to be uploaded in 2021-22. The on-going works in GIS plan was 134 and total number of work taken up including new and spill over was remarkably higher in 2021-22 (306) compared to 37 works in 2018-19. The average number of days of employment provided per household was lower (154.24) in 2018-19 while it was 200.9 in 2021-22. In case of person days generated alone, it was almost more than 80% in 2021-22 (60856) and in 2018-19 (39457).

Table 16. Key indicators of works and expenditure in 2018-19 and 2021-22 in Paiyur gram panchayat in Arni block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	39	400
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	21	359
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	57.67	9.65
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	1.78
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.87	93.44
6	Total number of NRM works completed/on-going	2	10

7	Total NRM Works from CWRM plan for three years	0	365
8	Total Non-NRM works from CWRM plans for three years	0	198
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	347
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	216
11	No of Works in GIS plan ongoing (R28.3)	0	134
12	Average number of days employment provided per households	154.24	200.9
13	Person days generated so far	39,457	60,856
14	Total number of works taken up (new + spill over)	37	306

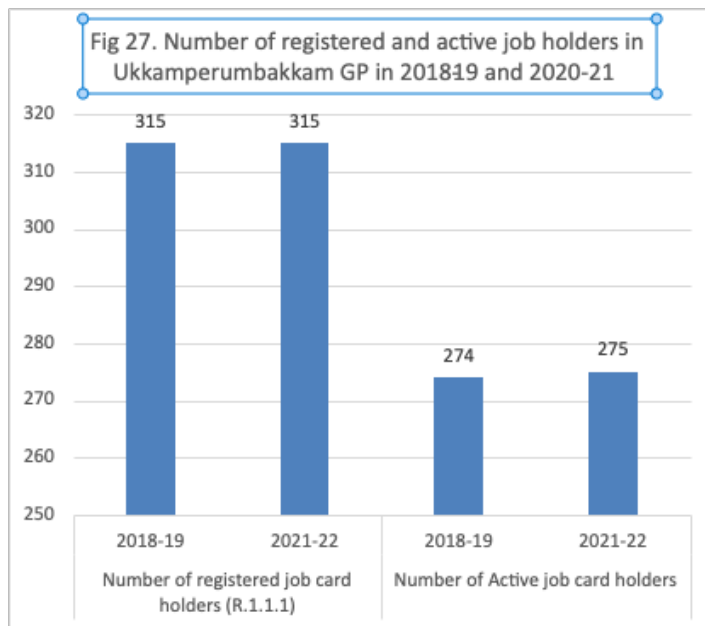
Map13. Paiyur Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



14. Ukkamperumbakkam GP, Vembakkam Block

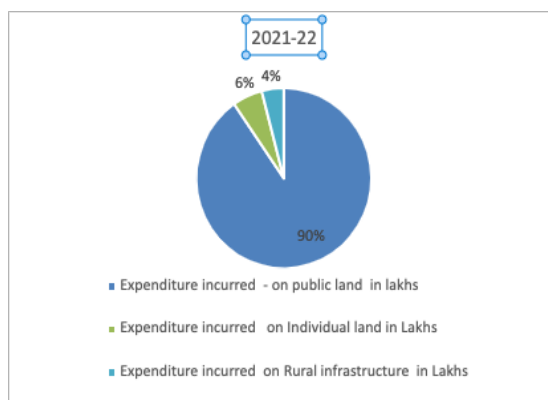
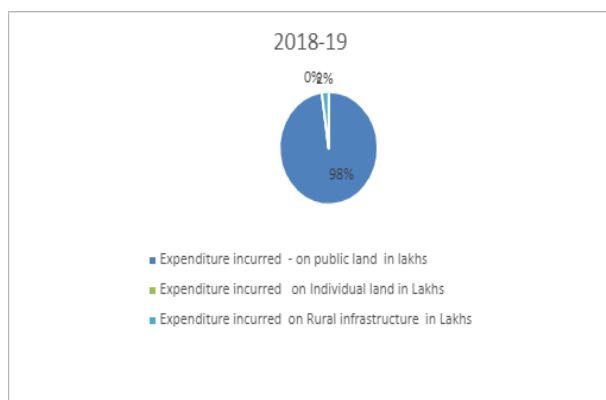
Ukkamperumbakkam gram panchayat in Vembakkam block reported that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was very marginal change in active job card holders by 1% between these three years.

With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC, ST and women job card holders there was no change between these three years of comparative study. There was an increase of 4% of households completed 100 days employment in 2021-22 compared to 2018-19. With regard to



proportion of NRM works compared to total works, it was 63% in 2018-19 while it increased considerably to 84% in 2021-22. The total number of works (150 works in 2021-22 as against 43 works in 2018-19) and NRM works (126 in 2021-22 and 27 in 2018-19) identified in 2021-22 were higher than 2018-19. With regard to budget spent, in 2018-19, 98% was spent in public and common works and 2% in rural infrastructures. While in case of 2021-22, it was 90% for public and common works, 4% in individual works and 6% in rural infrastructures (Fig 26).

Fig 28. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Ukkamperumbakkam GP, Vembakkam Block

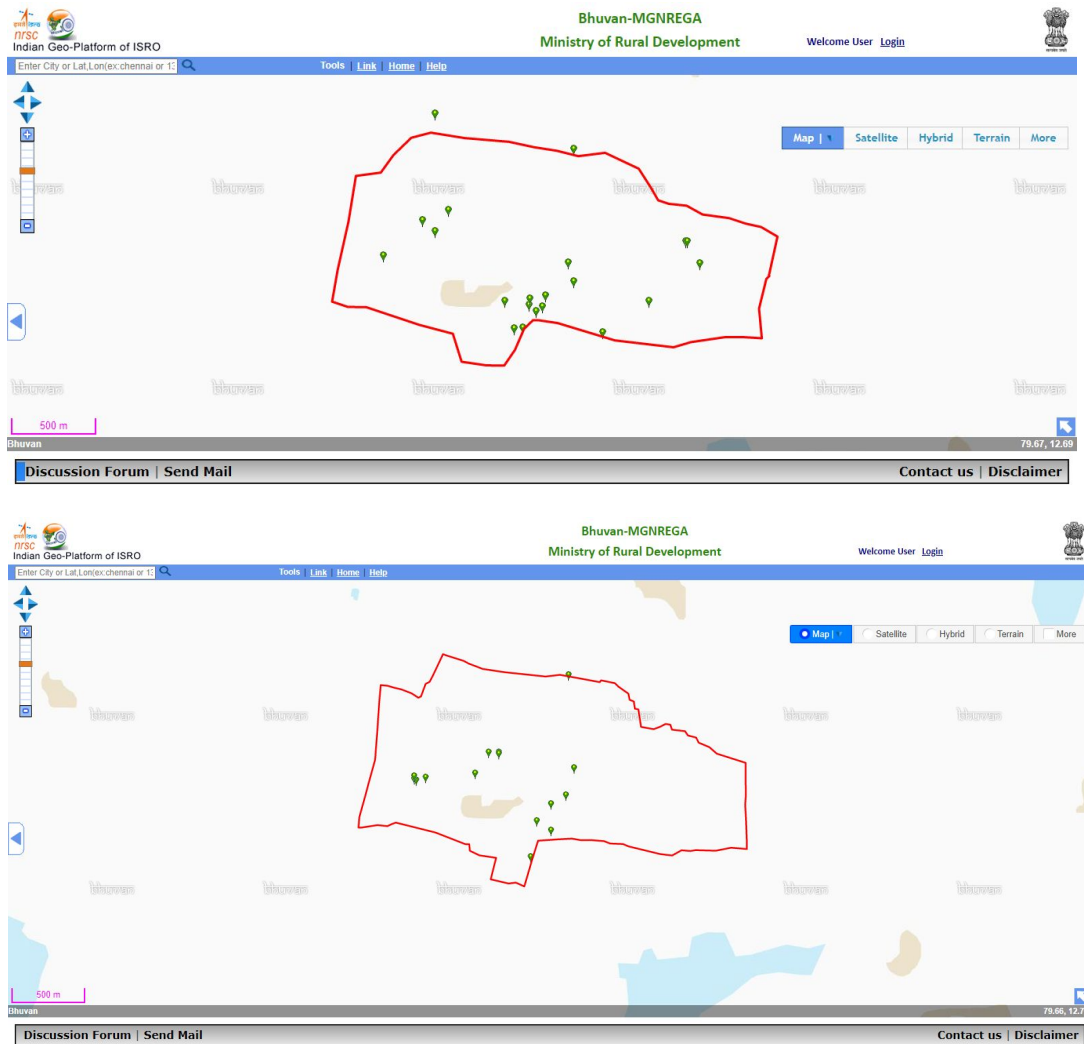


The number of NRM works identified in CWRM was 263 and 59 non NRM works. 360 works are entered in D-29 and remaining no pending works are to be uploaded in 2021-22. The on-going works in GIS plan was 85 and total number of works taken up including new and spill over was remarkably higher in 2021-22 (115) compared to 37 works in 2018-19. The average number of days of employment provided per household was almost same (80.48) in 2018-19 while it was 81.27 in 2021-22. In case of person days generated alone, it was almost more than 21% in 2021-22 (19018) and in 2018-19 (15211).

Table 17. Key indicators of works and expenditure in 2018-19 and 2021-22 in Ukkamperumbakkam GP, Vembakkam Block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	43	150
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	27	126
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakh s	21.06	29.81
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	1.83
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.48	1.34
6	Total number of NRM works completed/on-going	14	5
7	Total NRM Works from CWRM plan for three years	0	263
8	Total Non-NRM works from CWRM plans for three years	0	59
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	360
10	No.of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	0
11	No of Works in GIS plan ongoing (R28.3)	0	85
12	Average number of days employment provided per households	80.48	81.27
13	Person days generated so far	15,211	19,018
14	Total number of works taken up (new + spill over)	37	115

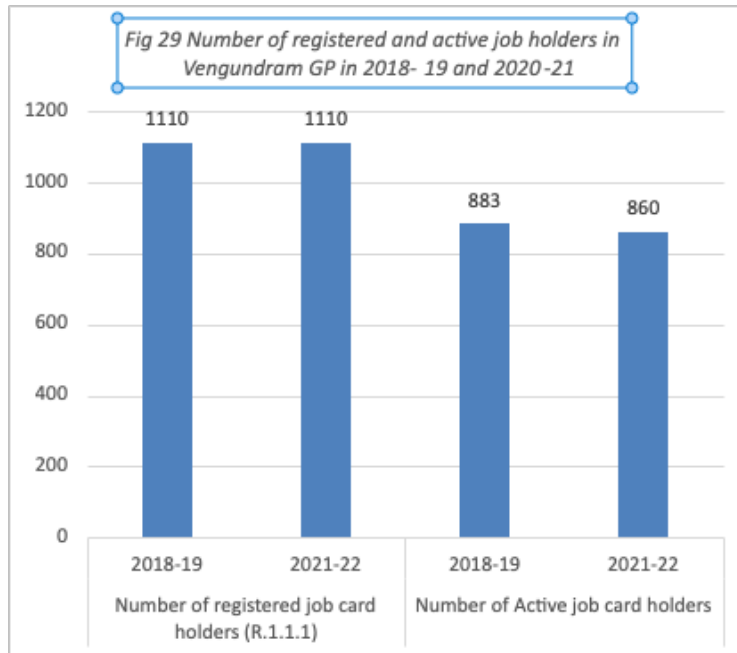
Map14.Ukkamperumbakkam Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



15. Vengundram GP, Vandavasi Block

Vengundram GP, Vandavasi Block reported that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was a decrease in active job card holders by 3% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC, ST and women job card holders there was no change between these three years of comparative study. There was no households who had completed 100 days employment in

2021-22 compared to 2018-19 in which it was 10%. With regard to proportion of NRM works compared to total works, it was 60% in 2018-19 while it increased considerably to 76% in 2021-22. The total number of works (203 works in 2021-22 as against 181 works in 2018-19) and NRM works (154 in 2021-22 and 108 in 2018-19) identified in 2021-22 were higher than 2018-19. With



regard to budget spent, in 2018-19, 100% was spent in public and common works. While in case of 2021-22, it was 68% for public and common works, 23% in individual works and 9% in rural infrastructures (Fig 30).

Fig 30. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Vengundram GP, Vandavasi Block



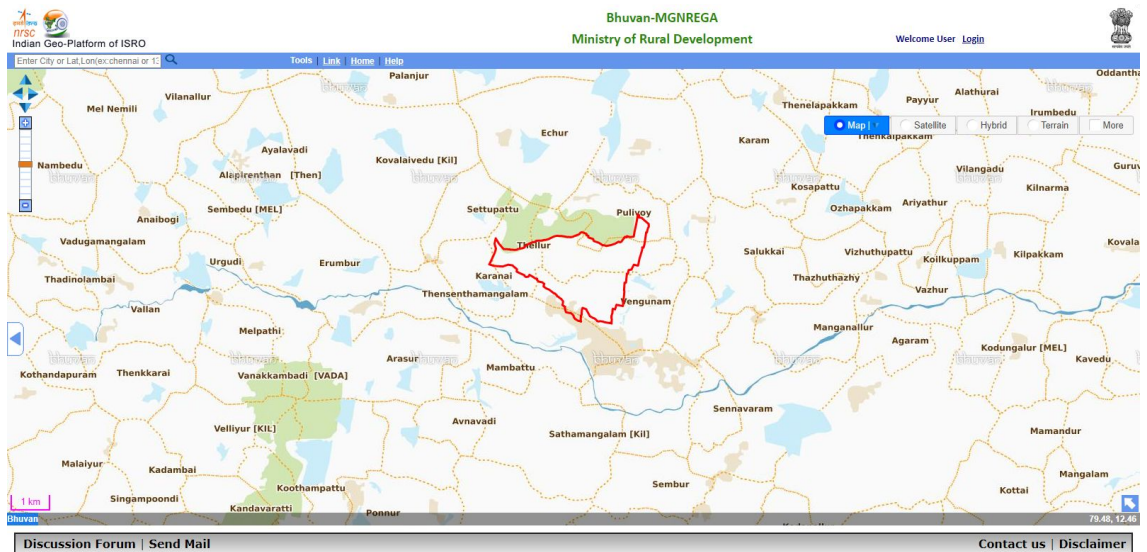
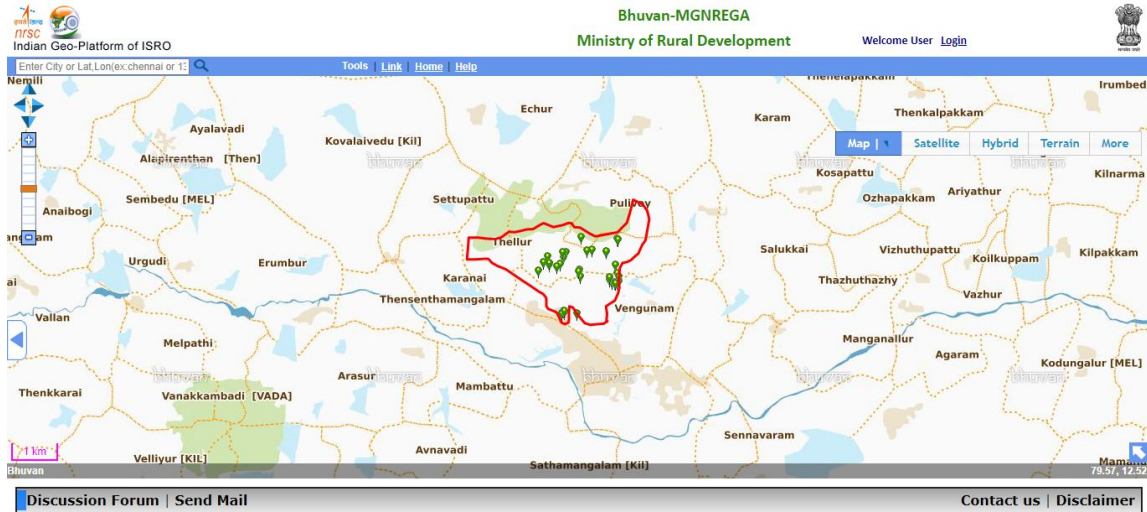
The number of NRM works identified in CWRM was 165 and 181 non NRM works. 467 works are entered in D-29 and remaining no pending works are to be uploaded in 2021-22. The on-going works in GIS plan was 7 and total number of works taken up including new and spill over was lower in 2021-22 (135) compared to 177 works in 2018-19. The average number of days of employment provided per household was more (86.51) in 2018-19 while it was 64.51 in 2021-22.

In case of person days generated alone, it was almost less than 11% in 2021-22 (49154) and in 2018-19 (54584).

Table 18. Key indicators of works and expenditure in 2018-19 and 2021-22 in Vengundram GP, Vandavasi Block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	181	203
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	108	154
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	78.04	1.93
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	14.01
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.02	4.8
6	Total number of NRM works completed/on-going	26	18
7	Total NRM Works from CWRM plan for three years	0	165
8	Total Non-NRM works from CWRM plans for three years	0	181
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	467
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	0
11	No of Works in GIS plan ongoing (R28.3)	0	7
12	Average number of days employment provided per households	86.5	64.51
13	Person days generated so far	54,582	49,154
14	Total number of works taken up (new + spill over)	177	135

Map 15. Vengundram GP, Vandavasi Block in MGNREGA Map for 2018-19 and 2021-22



16. Madam GP, Thellar Block

Madam gram panchayat reported that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was marginal increase in active job card holders by 2% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC, ST and women job card holders there was no change between these three years of comparative study. There was remarkable increase in percentage of households completed 100

days of work in 2021 -22 (25%) as compared to 8% in 2018-19. With regard to proportion of NRM works compared to total works, it was 80% in 2018-19 while it reduced to 45% in 2021-22. The total number of works (42 works in 2021-22 as against 92 works in 2018-19) and NRM works (19 in 2021-22 and 75 in 2018-19) identified in 2021-22 were less than 2018-19. With regard to budget spent, in 2018-19, 97% was spent in public and common works and remaining 3% on individuals works. While in case of 2021-22, it was 87% for public and common works, 12% in individual works and 2% in rural infrastructures (Fig 32).

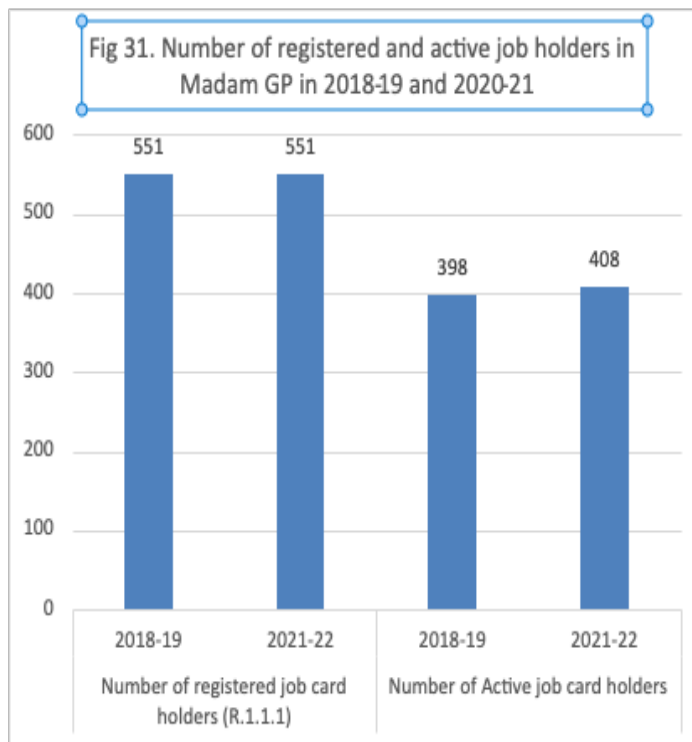
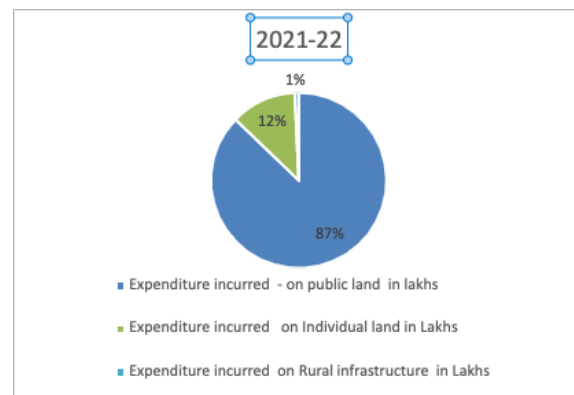
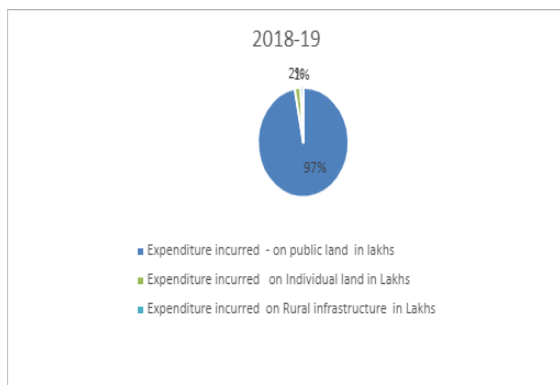


Fig 32. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Madam GP, Thellar Block

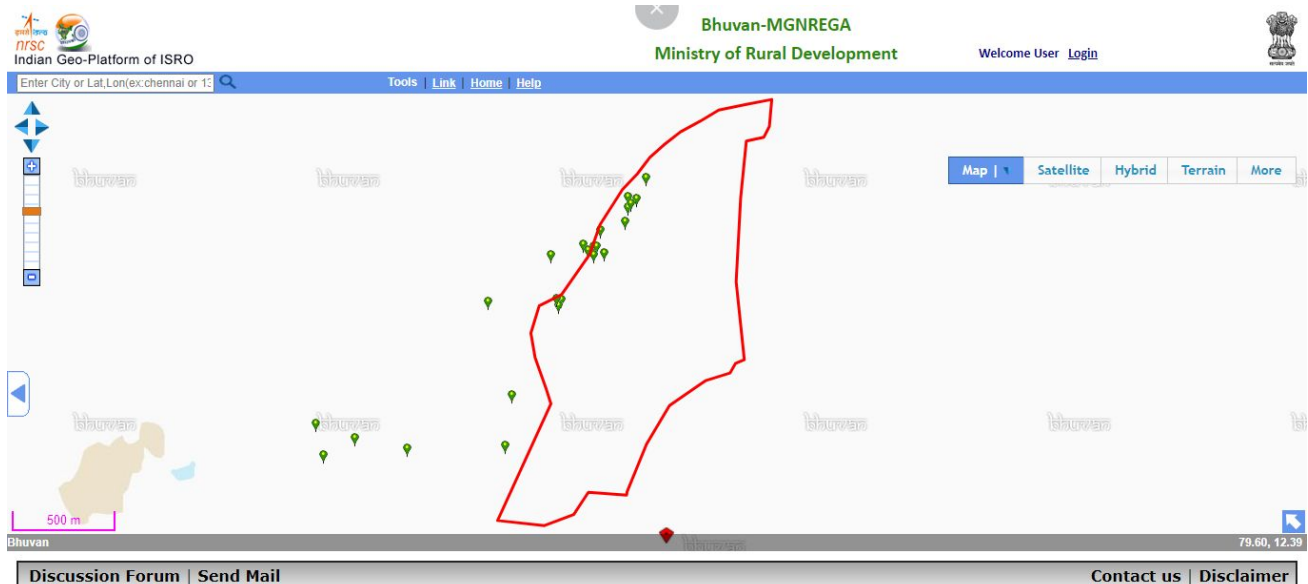


The number of NRM works identified in CWRM was 119 and 18 non NRM works. 63 works are entered in D-29 and 73 works are pending to be uploaded in 2021-22. The on-going works in GIS plan was 6 and total number of works taken up including new and spill over was higher in 2021-22 (83) compared to 40 works in 2018-19. The average number of days of employment provided per household was less (82.01) in 2018-19 while it was 89.35 in 2021-22. In case of person days generated alone, it was almost 17% higher in 2021-22 (31005) compared to 2018-19 (25832).

Table 19. Key indicators of works and expenditure in 2018-19 and 2021-22 in Madam GP, Thellar Block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	94	42
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	75	19
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	43.68	25.37
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0.93	3.51
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	0.43	0.21
6	Total number of NRM works completed/on-going	13	9
7	Total NRM Works from CWRM plan for three years	0	119
8	Total Non-NRM works from CWRM plans for three years	0	18
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	63
10	No.of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	74
11	No of Works in GIS plan ongoing (R28.3)	0	6
12	Average number of days employment provided per households	82.01	89.35
13	Person days generated so far	25,832	31,005
14	Total number of works taken up (new + spill over)	40	83

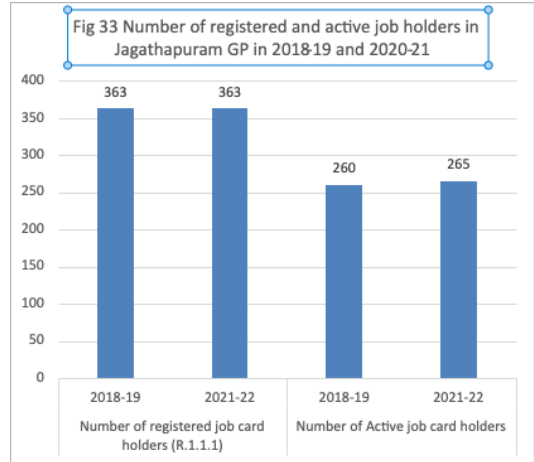
Map16 .Madam Gram Panchayat MGNREGA Map for 2018-19 and 2021-22



17. Jagaathapuram GP, Peranamallur Block

Jagaathapuram GP in Peranamallur block recorded that that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was marginal increase in active job card holders by 1% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC, ST and women job card holders there was no change between these

three years of comparative study. There was remarkable increase in percentage of households completed 100 days of work in 2021 -22 (11%) as compared to 1% in 2018-19. With regard to proportion of NRM works compared to total works, it was 92% in 2018-19 while it reduced to 76% in 2021-22. The total number of works (37 works in 2021-22 as against 132 works in 2018-19) and NRM works (28 in 2021-22 and 1221 in 2018-19) identified in 2021-22 were less than 2018-19.



With regard to budget spent, in 2018-19, 76% was spent in public and common works, 22% on rural infrastructures and remaining 2% on individual works. While in case of 2021-22, it was same as 76% for public and common works, 18% in individual works and 6% in rural infrastructures (Fig 35).

Fig 34. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Jagaathapuram GP in Peranamallur block

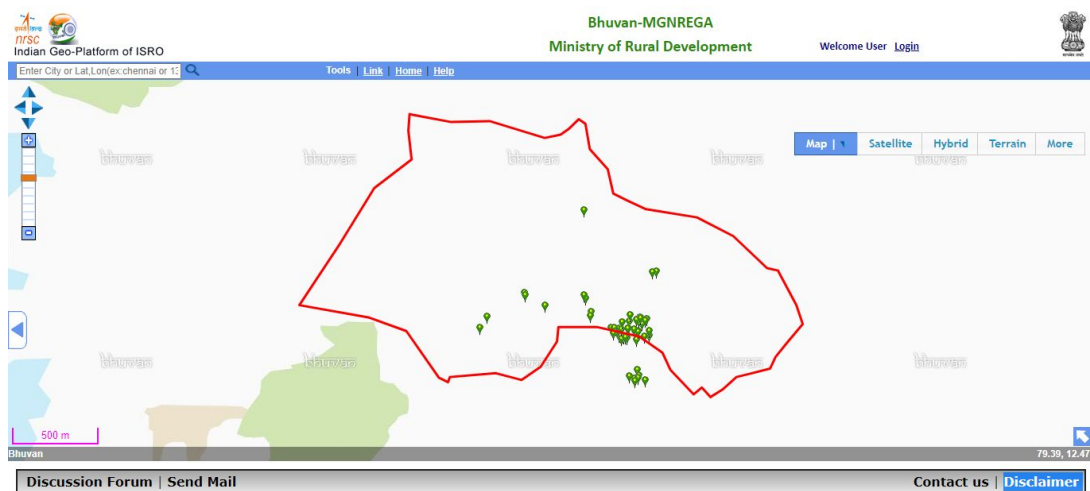


The number of NRM works identified in CWRM was 165 and 92 non NRM works. 488 works are entered in D-29 and there was no pending works to be uploaded in 2021-22. The on-going works in GIS plan was 2 and total number of works taken up including new and spill over was lower in 2021-22 (29) compared to 127 works in 2018-19. The average number of days of employment provided per household was less (75.22) in 2018-19 while it was 86.84 in 2021-22. In case of person days generated alone, it was almost 86% lower in 2021-22 (1741) compared to 2018-19 (12411).

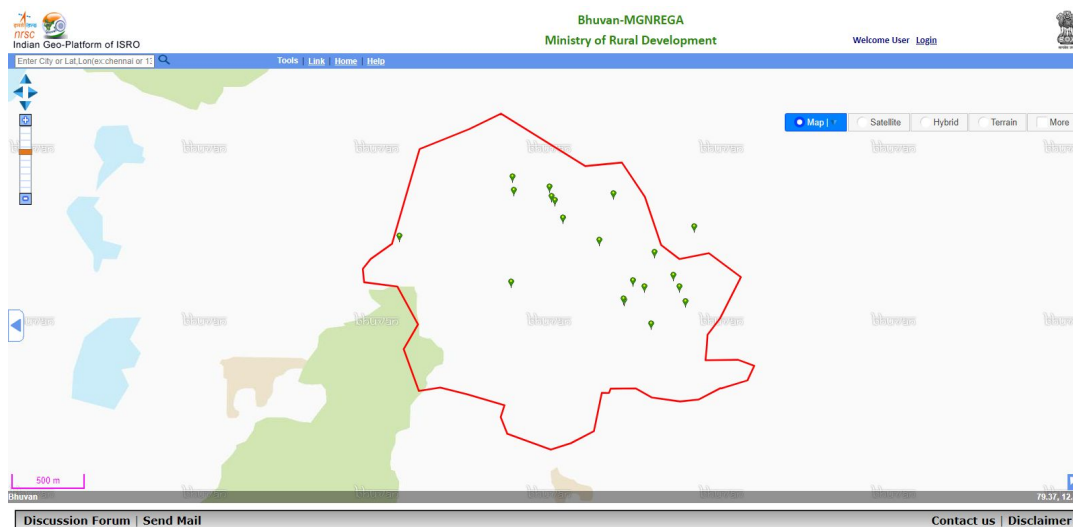
Table 19. Key indicators of works and expenditure in 2018-19 and 2021-22 in Jagaathapuram GP, Pernamallur Block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	132	37
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	121	28
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	17.04	7.41
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0.47	1.78
5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	4.89	0.59
6	Total number of NRM works completed/on-going	68	4
7	Total NRM Works from CWRM plan for three years	0	165
8	Total Non-NRM works from CWRM plans for three years	0	92
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	488
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	0
11	No of Works in GIS plan ongoing (R28.3)	0	2
12	Average number of days employment provided per households	75.22	86.84
13	Person days generated so far	12,411	1,741
14	Total number of works taken up (new + spill over)	127	29

Map17. Jeganathapuram Gram Panchayat MGNREGA Map for 2018-19 and 2021-22

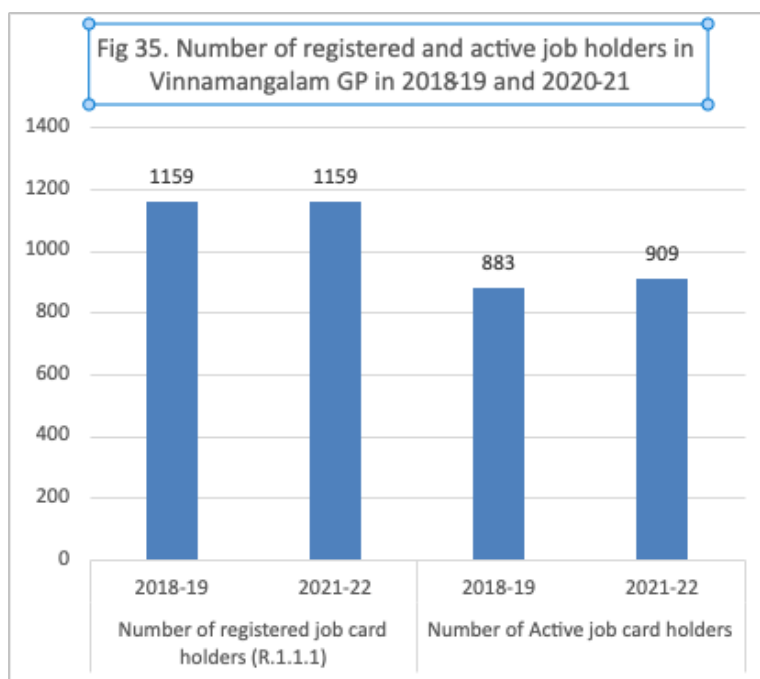


18.



18. Vinnamangalam GP, West Arani Block

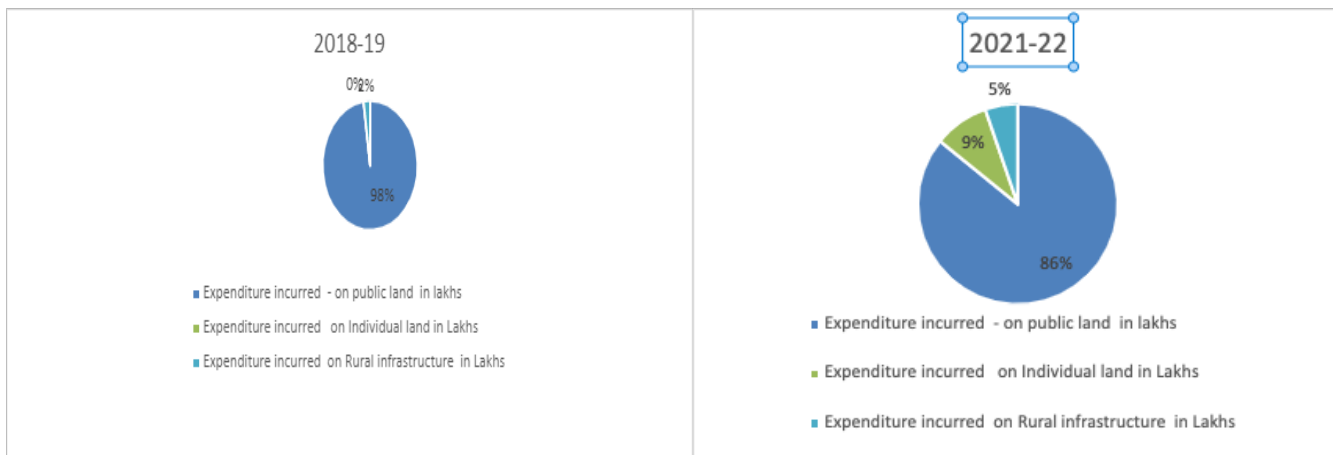
Vinnamangalam gram panchayat in West Arni block recorded that there was no change in the number of registered job card holders and between 2018-19 to 2021-22. While there was marginal increase in active job card holders by 2% between these three years. With reference to the proportion of the active job card holders to total registered members there was also similar change was noticed. In case of percentage of SC, ST and women job card holders there



was no change between these three years of comparative study. There was not much difference observed in percentage of households completed 100 days of work. With regard to proportion of NRM works compared to total works, it was 1127 in 2018-19 while it reduced to 4% in 2021-22. The total number of works (112 works in 2021-22 as against 117 works in 2018-19) and NRM works (71 in 2021-22 and 87 in 2018-19) identified in 2021-22 were less than 2018-19. With

regard to budget spent, in 2018-19, 98% was spent in public and common works and 2% on rural infrastructures works. While in case of 2021-22, it was same as 86% for public and common works, 9% in individual works and 5% in rural infrastructures (Fig 36).

Fig 36. Proportion of expenditure incurred in public/common land, individual land and rural infrastructure in 2018-19 and 2021-22, Vinnamanagalam GP, West Arani Block



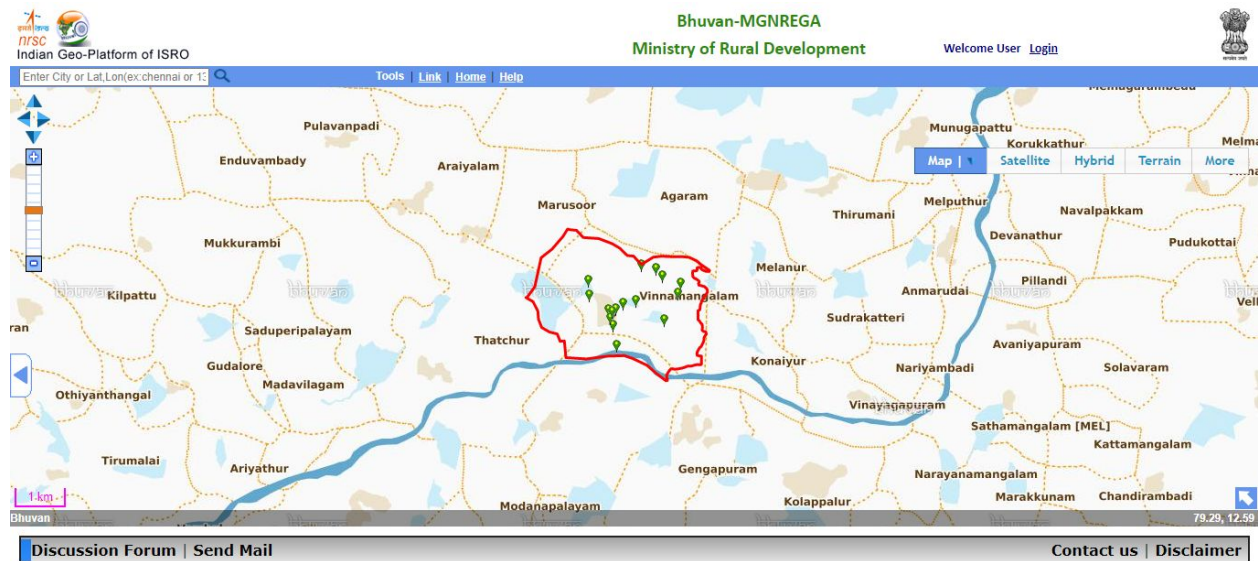
The number of NRM works identified in CWRM was 905 and 357 non NRM works. 362 works are entered in D-29 and there 900 works were pending to be uploaded in 2021-22. The on-going works in GIS plan was 2 and total number of works taken up including new and spill over was lower in 2021-22 (73) compared to 113 works in 2018-19. The average number of days of employment provided per household was less (54.16) in 2018-19 while it was 72.98 in 2021-22. In case of person days generated alone, it was almost 35% higher in 2021-22 (59110) compared to 2018-19 (38,239).

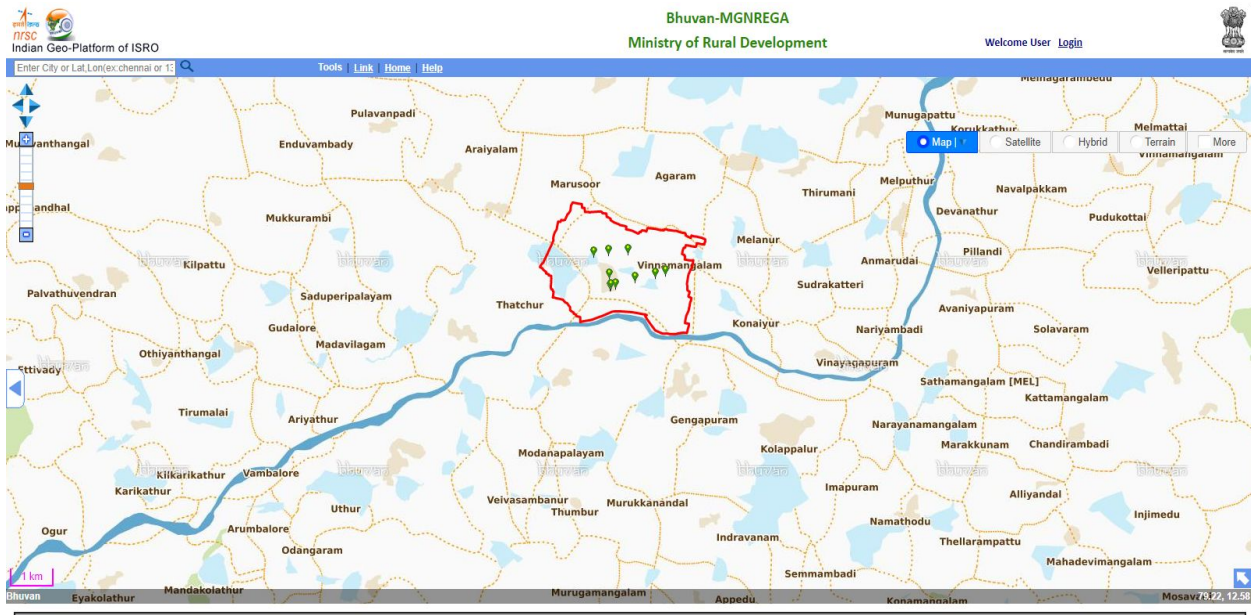
Table 20. Key indicators of works and expenditure in 2018-19 and 2021-22 in Winnamangalam GP, West Arni Block

Sl.No	Indicators	2018-19	2021-22
1	Number of NRM and Non-NRM works undertaken (R6.3)	117	112
2	Number of NRM works undertaken in Public/common, Individual and Rural infrastructure (R6.3)	87	71
3	Expenditure incurred - NRM works on public land undertaken and (R6.3) in lakhs	51.43	17.26
4	Expenditure incurred - List of NRM works on Individual land undertaken and (R6.3) in Lakhs	0	1.79

5	Expenditure incurred - List of NRM works on Rural infrastructure undertaken and (R6.3) in Lakhs	1.17	1.06
6	Total number of NRM works completed/on-going	14	5
7	Total NRM Works from CWRM plan for three years	0	905
8	Total Non-NRM works from CWRM plans for three years	0	357
9	No. of NRM and Non-NRM plans uploaded in NREGA soft (D-29)	0	362
10	No. of NRM and Non-NRM plans to be uploaded in NREGA soft (D-29)	0	900
11	No of Works in GIS plan ongoing (R28.3)	0	2
12	Average number of days employment provided per households	54.16	72.98
13	Person days generated so far	38,239	59,110
14	Total number of works taken up (new + spill over)	113	73

Map18 Vinnamangalam Gram Panchayat MGNREGA Map for 2018-19 and 2021-22





Output 3:	Indicator 3.1:	
<p>The cooperation with the private sector on integrated, climate-adapted water resource management measures is strengthened at the state and local level.</p>	<p>cooperation model between rural user groups, communities and the private sector - Two models are in operation</p> <ol style="list-style-type: none"> 1) NABARD - Civil Society - CSR and Community partnership - so far it has happened at the partnership model of Watershed development among NABARD - Civil Society Organization and CSR partners - but not happened before 2016 2) CSR - Civil society partnership - the support is to revive the water bodies in select locations 	<p>Explored the CSR cooperation models in water management. One partnership with a CSR support are in operation in the district for plantation and soil and water conservation works.</p> <p>With NABARD also with the change in their focus of work to FPOs, attention on watershed works are getting lesser priority. Apart from that two more agencies were approached in the district. However, taking their support in model building could not be done in this period.</p>

With reference to the involvement and participation of the corporate partners, the situation in 2018-19 was continued in 2021-22 also. The CSR partners, namely TVS society have been working in the tribal regions in the management of water resources. Although LT constructions and Apollo Tyres are working in few areas, could not secure their partnership in building water

resource as part of leveraging funds. Due to Covid-19 pandemic context, interest of the CSR partners are also changed.

Discussion

On the indicators 1 and 2 there were potential opportunities to strengthen the convergence further seeing the local context.

In 2018-19, there were eight different schemes, of both state and national levels are being operational to promote integrated water management programmes in the district in 2018-19 (Tables 21A). Of the eight different schemes focusing on integrated water management, only two schemes are focusing on the water quality issues. Almost all the schemes are giving priority to augmentative actions while four schemes are working on demand side as well to improve the water productivity.

In 2021-22, there were 14 schemes including the eight schemes which were continuing since 2018-19, Of the 14 schemes, 4 were central schemes and 10 are state schemes. While all 14 Schemes were focusing on water augmentation, 12 were focusing on water demand especially in promoting efficient use of water and only five schemes were giving attention to water quality issues (Table 21 B).

Table 21 A. Comparison of water augmentation, demand and quality management among the schemes in Tiruvannamalai district in 2018-19

Schemes	Water augmentation infrastructure	Water Demand side- efficient use of water	Water quality management
1. MGNREGA	√	√	√
2. Kudimaramathu	√	-	-
3. Tamil Nadu, IAMWARM		√	-
4. Rainwater Harvesting and Runoff Management Programme	√	-	-
5. Mission on Sustainable Dryland Agriculture	√	√	-
6. Tamil Nadu Watershed Development Agency (TAWDEVA)	√	√	-

7. <i>Jal Shakthi Abiyan</i>	√	√	√
8. <i>Jal Jeevan Mission</i>	√	-	√

Table 21 B. Comparison of water augmentation, demand and quality management among the schemes in Tiruvannamalai district in 2021-22

Schemes	Water augmentation infrastructure	Water Demand side- efficient use of water	Water quality management
1) MGNREGA	√	√	√
2) <i>Kudimaramathu</i>	√	-	-
3) Tamil Nadu, IAMWARM	-	√	-
4) Rainwater Harvesting and Runoff Management Programme	√	-	-
5) Mission on Sustainable Dryland Agriculture	√	√	-
6) Tamil Nadu Watershed Development Agency (TAWDEVA)	√	√	-
7) <i>Jal Shakthi Abiyan</i>	√	√	√
8) <i>Jal Jeevan Mission</i>	√	√	√
9) Package to bring fallow lands into cultivation – Govt of Tamil Nadu	√	√	√
10) Farm ponds for on-farm rainwater conservation	√	√	-
11) <i>Kalaigarin Anaithu Grama Orunginaintha Velaan Valarchi Thittam</i>	√	√	√
12) Micro Irrigation under <i>Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)-Per Drop More Crop</i>	√	√	-
13) Supplementary water management activities	√	√	-
14) Providing electric motor pumpsets to the farmers with subsidy	√	√	-

2018-19: The schemes were evaluated based on the level of participatory approach in its implementation to ensure the sustainability, governance building, degree of partnership and convergence along with the climate change perspectives explicitly while designing and promoting the integrated water resource management measures. 6 schemes were focusing on climate change perspectives and seven on convergence and partnerships with other agencies and departments.

2021-22: 11 different schemes were focusing on the climate adaptation dimension as well as convergence and partnerships (Table 22 A).

Table 22 A. Schemes and the approaches adopted in 2018-19

Schemes	Participatory approach	Governance and institution building	Climate change perspectives	Convergence and partnerships
1. MGNREGS	√	√	√	√
1. Kudimaramathu	√	-	-	√
2. TN- IAMWRM	√	√	√	√
3. Rainwater Harvesting and Runoff Management Programme	-	-	-	-
4. Mission on Sustainable Dryland Agriculture		√	√	√
5. Tamil Nadu Watershed Development Agency (TAWDEVA)	√	√	√	√
6. <i>Jal Shakthi Abiyan</i>	-	-	√	√
7. <i>Jal Jeevan Mission</i>	-	-	√	√

Table 22 B. Schemes and the approaches adopted in 2021-22

Schemes	Participatory approach	Governance and institution building	Climate change perspectives	Convergence and partnerships
1) MGNREGA	√	-	√	√
2) <i>Kudimaramathu</i>	-	-	√	-
3) Tamil Nadu, IAMWARM	-	-	√	√
4) Rainwater Harvesting and Runoff Management Programme	-	-	-	-
5) Mission on Sustainable Dryland Agriculture	-	√	√	√
6) Tamil Nadu Watershed Development Agency (TAWDEVA)	√	√	√	-
7) <i>Jal Shakthi Abiyan</i>	√	√	-	√
8) <i>Jal Jeevan Mission</i>	√	√	-	√
9) Package to bring fallow lands into cultivation – Govt of Tamil Nadu	√	√	√	√

10) Farm ponds for on-farm rainwater conservation	√	-	√	√
11) <i>Kalaignarin Anaithu Grama Orunginaintha Velaan Valarchi Thittam</i>	√	-	√	√
12) Micro Irrigation under <i>Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)-Per Drop More Crop</i>	-	-	√	√
13) Supplementary water management activities	-	-	√	√
14) Providing electric motor pumpsets to the farmers with subsidy	-	-	√	√

Key areas of changes between 2018-19 and 2021-22at Tiruvannamalai District

Key areas	2018-19	2021-22
<i>Decisions involving users, planners and policy makers:</i>	At present the decisions are not taken completely adopting the participatory approach involving all connected stakeholders – Users, planners and policy makers. The enabling environment for all come together and discuss was very limited here .	During the three years period priority and activities were promoted to improve the convergence among different line departments and schemes at the district level. District collector has formed a forum for convergence and regular review meetings were organized to assess the progress and understand the challenges. This process helped different departments to come together and work in coordination at the field level through District Rural Development Agency (Box 2) .
<i>Stakeholders voice in water planning and management and social inclusion</i>	Four out of the ten schemes are central schemes the operational guidelines leave limited scope for change according to the local context. However, the district officials are in consultation with local panchayats and relevant institutions while implementing the tasks.	Here also four schemes were central however, the district administration has been consistent in adopting the convergence meeting to pool the different schemes according to the eligibility criteria's it was implemented in the field. However, consultation with primary stakeholders, i.e at the community level was taken up for the major schemes like MGNREGS in the grama saba meetings.
<i>Decisions have been taken to consider the various use of water (population, agriculture, industry etc.):</i>	Drinking water sector the decisions are made considering the population to ensure safe drinking water to all households. In case of <i>Jal Sakthi Abiyan</i> , the water budgeting approach has been adopted in case of Agriculture and Industry, both are the main users of water, while agriculture sector use - surface and	Increasingly the water budgeting at the GP level was assuming greater importance and JJM has been focusing on developing water budget to improve the water sources vis-à-vis promoting the FTWC.

	ground water resources and industry largely depend on ground water resources.	
<i>The decisions on water planning taken are incorporated into broader social, economic and environmental goals:</i>	The interaction with the planners and policy makers revealed that such a holistic approach and strategies can be improved with due importance from an ecosystem based framework. Targeting has been adopted while implementing schemes on social and economic dimensions to an extent.	The priority was given to adopt the watershed approach in identifying the works as well as implementation. Hence the ecosystem based approach has been indirectly promoted at different spatial scales while promoting works in the field conditions
<i>The decisions taken consider a) water management (water demand/ supply, water quality, water resources), b) water use efficiency and c) water risk management (climate scenarios, drought, flood):</i>	The point a) water management related decisions are largely restricted to drinking water sector – they see the demand, augment the supply, working out the solutions to improve water quality and increase the water resources by adding new structures such as borewells, bringing water supply from far away places – eg Palar river water supply. However such planning to ensure water supply for agriculture is limited in discourse (already big water storage structures are in place) and also the water use efficiency related schemes were implemented in an isolated manner without aiming for large scale benefits of water resources conservation.	There has been changes in the approach at the district level, efforts were taken to promote on-farm water conservation works such as farm ponds, recharge shafts, farm bunding cum trenches etc were some illustrations on this changing approach.
<i>With reference to water risk management –</i>	There were traditional practices and structures to ensure resilience against these risk, but such practices are under degradation and planning is not taking place based on such measures – eg cascade of tanks in the district, one of the key structure built over the years with related governance structures as well as village based water management systems.	Efforts have been taken to build the models of Cascade of Tanks, open wells, spring shed restoration, honey park by promoting locally adapted flora, silvipasture systems in grazing lands etc are some of the models built on the traditional practices and knowledge integrating with science and technology inputs under MGNREGS as core.

WASCA – Convergence approach – Tiruvannamalai District

One of the WASCA project objectives was to bring the various departments in one forum to attain better result with shared responsibility. To strengthen the WASCA project plan and implementation of the proposed activities convergence of various departments in the district is very much essential. The district convergence meeting has been headed by District Collector; rural development, Forestry, Agriculture, Horticulture, Fisheries and Animal husbandry departments are regularly participating. The district collector reviews the WASCA project related components especially climate resilient activities with other departments to strengthen field level implementation and its progress.

The allied activities of Department of Rural Development such as fallow land development, cascade of tanks, horticulture park, floriculture and fish culture were the activities implemented through the respective departments in the convergence mode by the district administration. Based on the continues review and guidance of District Collector and Additional Collector the following climate resilient activities have owned by other departments and also the district shown the progress in the climate resilient activities.

Totally seven convergence meetings were organized and discussed between 2018-19 to 2021-22.

Silvi-pasture: Twenty Five hectares of Silvi-pasture models developed at Chandrampadi GP of Pernamallur Block by the department of Animal Husbandry as a model of convergence, in addition five farm ponds also created in and around the land by department of Rural Development (RD). The portion of five hectare has been considered for production of seeds for future pasture development in the district.

Fallow land development: Fallow land development was one of the climate resilient measures proposed by WASCA project, through convergence this initiative was handed over to the Department of Agriculture to align the works of RD under MGNREGS. Fallow land development scheme also priority of Tamil Nadu Government therefore 145.6 Ha benefitted 122 GPs of the district.

Inland Fish Culture: As a convergence Department of Fisheries provided fingerlings Tilapia for 196 farmers who have established farm ponds under MGNREGS. This initiative has shown the farmers to earn an additional income apart from regular agriculture. This also creates demand for farm pond among the farming community.

Water Use efficiency and Floriculture: Three farmers received micro irrigation equipment from Horticulture Department of which two farmers are cultivating various crops other than paddy and one farmer is shifted to floriculture. The land cleaning and bund formation was done by Department of Rural Development.

Horticulture Park: To reduce the malnutrition challenges in the village, Horticulture Park has been promoted through Department of Horticulture. The District collector advised Department of Horticulture to promote one horticulture park per block as pilot and eighteen horticulture park were initiated in the district.

Bamboo Park: To strengthen the initiative of bamboo cultivation under MGNREGS 1500 bamboo seedlings were planted with the technical support of Forest Department. 500 seedlings each have been planted in Thurinjapuram, Tiruvannamalai and Pernamallur blocks.

Key Observations:

The WASCA project interventions has technically supported the district administration to improve the planning and implementation of works keeping MGNREGS as base in the district of Tiruvannamalai. The district has completed the planning in GIS platform for the 860 GPs and identified 255895 appropriate works, integrated in NREGA Soft (D 29) database and became number 1 in the country with the highest average number of works in the GP @ 298 works.

The planning has supported to reach scale across districts in certain activities like Farm ponds, plantation activities adopting different models like greening of hillocks, massive tree planation, honey park, silvipasture systems etc. On an average there was an improved allocation for the NRM works in 2021-22 compared to 2018-19 and within NRM works also there was a shift in allocation across the three categories of works. The percentage of members who have completed 100 days work still needs to be promoted as there were a greater number of works identified in CWRM framework compared to the 2018-19. Also, slowly the GPs started implementing works in GIS plan which needs to be strengthened in the coming periods. The proportion of NRM to non-NRM works in few of the studied GPs were very less which also needs to be built and improved further to increase the investment under natural resources management and climate resilience.

Annexure 1.

List of Biophysical and socio-economic indicators used in vulnerability assessment in Tiruvannamalai district

1. Exposure in climate extremities is very high during 1951-2015	<ul style="list-style-type: none">• Increase in day time temperature is high (1.2°C)• Minimum temperature increase is high (0.5°C)• Excess rainfall are more (15 years)• Deficient rainfall years (15)
2. Water resource vulnerability	<ul style="list-style-type: none">• Nearly 71 % of the blocks are overexploited• Out of 52 firkas, 37 are OE, 7 are critical, 8 are semi-critical and there is no safe firka• Ground water recharge is low• Low surface water availability• Demand supply gap is more and• Fluoride and Nitrate contamination
3. Agriculture vulnerability is very high among all districts	<ul style="list-style-type: none">• Soil moisture is less• Evaporation is more
4. Socio-economic vulnerability	<ul style="list-style-type: none">• Poverty index (0.53)• Source of drinking water within premises in rural is 18.8 %• Marginal farmers are very high (94.7 %)• Rural proportion is 79.9 per cent

Annexure 2.

National Level Rank Report-Tamil Nadu R28.1 Status of GIS based Plans and Total works					
SNO	Districts	Number of GPs with GIS based plans uploaded in NREGASoft	No of Works uploaded in NREGA soft (2021-22)	Av no of works per GP (2021-22)	National Level Rank
1	TIRUVANNAMALAI	860	255895	298	1
2	RAMANATHAPURAM	429	48605	113	11
3	MAYILADUTHURAI	241	28859	120	25
4	KRISHNAGIRI	333	18276	55	39
5	VIRUDHUNAGAR	450	17781	40	40
6	DHARMAPURI	251	17222	69	41
7	TIRUCHIRAPPALLI	404	15728	39	44
8	NAGAPATTINAM	193	14451	75	46
9	THANJAVUR	589	12738	22	50
10	KANCHIPURAM	274	11857	43	54
11	KARUR	157	11704	75	55
12	NAMAKKAL	322	11129	35	58
13	TIRUPPUR	265	8455	32	65
14	SALEM	385	8025	21	67
15	THENI	130	7630	59	68
16	DINDIGUL	306	6830	22	73
17	RANIPET	288	6601	23	74
18	TENKASI	221	6154	28	80
19	CUDDALORE	683	6111	9	81
20	ERODE	225	4941	22	94
21	TIRUPATHUR	208	4768	23	96
22	PERAMBALUR	121	4626	38	99
23	TIRUVARUR	430	4105	10	107
24	TIRUVALLUR	526	4068	8	108
25	THE NILGIRIS	35	3494	100	114
26	CHENGALPATTU	359	3306	9	119
27	MADURAI	420	3084	7	125
28	ARIYALUR	201	2633	13	141
29	TIRUNELVELI	204	2204	11	157
30	THOOTHUKKUDI	403	1960	5	170
31	COIMBATORE	228	1850	8	173
32	PUDUKKOTTAI	497	1806	4	176
33	VILLUPURAM	688	1712	2	179
34	KANNIYAKUMARI	94	1432	15	194
35	VELLORE	247	1208	5	208
36	KALLAKURICHI	412	1032	3	223
37	SIVAGANGAI	445	691	2	264

Annexure 2 a.

State Level Rank Report-Tamil Nadu R28.1 Status of GIS based Plans and Total works					
SNO	Districts	Number of GPs with GIS based plans uploaded in NREGASoft	No of Works uploaded in NREGA soft (2021-22)	Av no of works per GP (2021-22)	State Level Rank
1	TIRUVANNAMALAI	860	255895	298	1
2	RAMANATHAPURAM	429	48605	113	2
3	MAYILADUTHURAI	241	28859	120	3
4	KRISHNAGIRI	333	18276	55	4
5	VIRUDHUNAGAR	450	17781	40	5
6	DHARMAPURI	251	17222	69	6
7	TIRUCHIRAPPALLI	404	15728	39	7
8	NAGAPATTINAM	193	14451	75	8
9	THANJAVUR	589	12738	22	9
10	KANCHIPURAM	274	11857	43	10
11	KARUR	157	11704	75	11
12	NAMAKKAL	322	11129	35	12
13	TIRUPPUR	265	8455	32	13
14	SALEM	385	8025	21	14
15	THENI	130	7630	59	15
16	DINDIGUL	306	6830	22	16
17	RANIPET	288	6601	23	17
18	TENKASI	221	6154	28	18
19	CUDDALORE	683	6111	9	19
20	ERODE	225	4941	22	20
21	TIRUPATHUR	208	4768	23	21
22	PERAMBALUR	121	4626	38	22
23	TIRUVARUR	430	4105	10	23
24	TIRUVALLUR	526	4068	8	24
25	THE NILGIRIS	35	3494	100	25
26	CHENGALPATTU	359	3306	9	26
27	MADURAI	420	3084	7	27
28	ARIYALUR	201	2633	13	28
29	TIRUNELVELI	204	2204	11	29
30	THOOTHUKKUDI	403	1960	5	30
31	COIMBATORE	228	1850	8	31
32	PUDUKKOTTAI	497	1806	4	32
33	VILLUPURAM	688	1712	2	33
34	KANNIYAKUMARI	94	1432	15	34
35	VELLORE	247	1208	5	35
36	KALLAKURICHI	412	1032	3	36
37	SIVAGANGAI	445	691	2	37

Annexure 3 – Top 10 Districts – Number of works

SNO	State	Districts	Number of GPs with GIS based plans uploaded in NREGASoft	30 MAR 2022 No of Works uploaded in NREGA soft (2021-22)
1	TAMIL NADU	TIRUVANNAMALAI	860	255895
2	WEST BENGAL	24 PARGANAS SOUTH	228	122797
3	WEST BENGAL	DINAJPUR UTTAR	78	115871
4	WEST BENGAL	PURBA MEDINIPUR	223	111885
5	WEST BENGAL	MURSHIDABAD	250	108728
6	WEST BENGAL	COOCHBEHAR	128	76182
7	WEST BENGAL	PASCHIM MEDINIPUR	194	73054
8	WEST BENGAL	24 PARGANAS (NORTH)	182	63813
9	WEST BENGAL	PURBA BARDHAMAN	178	53507
10	ANDHRA PRADESH	ANANTAPUR	1048	53013

Annexure 4. Progress as on 31 March 2022

Key Parameter	District	<u>TIRUVANNAMALAI</u>
	Total No of Works in GIS	Number
Rank		1
Average Works Per GP	Number	298
	Rank	14