















A PROJECT REPORT ON

LAKE DESILTING & SILT APPLICATION PROJECT

Project period: From March 2021 to July 2021 From March 2022 to August 2022

PROJECT TITTLE: RESTORING PROMISE OF WATER (RPOW)



THE PROJECT FOR CLAIMATE CHANGE THROUGH LAKE REJUVENATION BY SILT EXCAVATION

Project's prime objectives

- 1. Adequate collection and use of rainwater
- 2. Increasing the lake's capacity to store more water.
- 3. To augment farm production, productivity and the land value
- 4. Community involvement for SUSTAINABILITY & RANSPERANCY

Expected OUTCOMES

- Reconnecting the community with the lake.
- > Restoration of the lake management system
- > An increase in the level of ground water. Recharge of open well as well as Bore wells
- Creating an environment conducive to restoring biodiversity.
- > Greater opportunities for scaling up rural livelihoods, livestock, and food security

Expected IMPACT

Support and supplement for Carbon sequestration to mitigate global warming by the biological process.

Kolar District is LAND of LAKES



CARBON SEQUESTRATION PROCESS

1.RAINS FILLS A DESILTED WATER BODY AND CARRY MULCH, MINERALS, INTO THE WATER BODY



4.THE DESILTED WATER BODY NOW HAS CAPACITY TO CAPTURE THE RAIN ONCE AGAIN



2. AS WATER BODY DRIES UP POST MONSOON, THIS MATERIAL IS AVAILABLE AS RICH SILT



3.FARMERS APPLY THIS RICH SILT ON THEIR FARMS AND THEREBY EMPTY THE WATER BODY



LAKES REJUVENATION FOR CLIMATE CHANGE



BIO DIVERSITY, LIVELIHOODS OPPORTUNITY, WOMEN EMPOWERMENT AND SUSTAINABILITY CAN BE ACHIEVED BY THIS LAKE REJUVENATION PROJECT









WORK ACHIVEMENT in RPOW season 1 & 2

No. of CuM of silt excavated	5,14,099 CuM
 Water holding capacity has been increased 	51,14,09,900 Liters
No. of Tractor trolleys (TTL) silt has been excavated	1,83,607 TTL
No. of Taluks covered in the District	5 Taluk in Kolar
LAKES & Villages covered in the project	49 Lakes / 46 Villages
 No. of module silt excavation work progressed 	62 Modules
 No. of MODULES completed of 10000 CuM 	51 Modules
 Farmers benefitted from Lake / Tank silt 	1096 Farmers

DONORS AND FUNDING FOR THE PROJECT SEASON 1&2

RESTORE	PROMISE OF	WATER – Lake Rejuve	enation project	;
DONORS	Donors Funds	Farmers fund mobilization/ Investment	Total project funds	Project period
CONSORTIUM DONORS	30,18, 500	68,27,816	98,46,316	March 2021
Caring Friends, ATE Chandra Foundation, Rotary clubs & IITFORIIT				to July-2021
Caring Friends, ATE Chandra Foundation, RBI (Rotary Bengaluru Indiranagar) & IITFORIIT	65,51,816	2,47,48,380	3,13,00,196	March 2022 to August-2022
Total	95,70,316	3,15,76,196	4,11,46,512	

Expenses of per module from Donors is Rs. 1,86,193 (for 51.4 module which is 5,14,000 cum)

Major concerns

The findings of the project while implementing with the support of consortium of donors is as follows. Notwithstanding our findings, the State Anchor turned a deaf year and categorically said that it's PRIORITY is provide space for more water. NOT sustainability element. Our PRIORITY is sustainability after the project ends.

- A) ZERO women's involvement
- B) NO small and marginal farmers benefitted
- C) NEGLIGIBLE participation of SC Communities
- D) Finally, it is benefitted only rich farmers

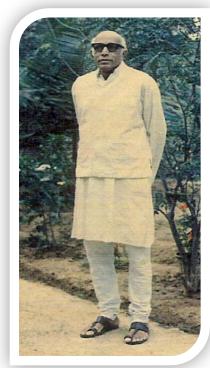
Social Engineering process will take care of the major concerns in our new approach.

SOCIAL ENGINEERING FOR SUSTAINABILITY and SOCIAL ENGINEERING TO MITIGATE CLIMATE CHANGE EFFECTS IN A SUSTAINED MANNER.

GRAMA VIKAS DISTRICT PROGRAM ANCHOR FOR RPOW PROJECT



- Grama Vikas was registered as a NGO in 1979 by late Dr. N.K.A. Iyer and his friends and since then working in Kolar district.
- GV worked in 250 villages in Kolar District in Karnataka state. GV had worked in 100 more villages in Kadur taluk of Chickmagalur district for 5 years and Raichur taluk of Raichur district in Kalyana -Karnataka region for 8 years.
- GV has worked in 5 districts with 5 Farmers Producers Companies (Farmer's institutions) in Mysore, Hassan, Ramanagar, Chickkballapura and Bangalore Urban.



Through a network of NGOs known as the CAN (Collective Action Network), Grama Vikas has been active in around 300 villages spread throughout all 6 Taluks of the Kolar District.

RPOW Season-1 & 2

Project implemented by District Program Anchor (GRAMA VIKAS) through Community Anchors /Collective Action Network member (Native NGOs)

SN	Name of the Ground NGO (Collective Action Network)	Taluk	NGO -CEO	No. Lakes/ Modules
1	SEED	Kolar	Ms. Mallamma	4
2	BRDS	Kolar	Mr. Chowdappa	14
3	YIDS	Kolar	Mr. Hoohalli Nagaraj	7
4	VGRDS	Srinivaspura	Mr. Shivappa D T	3
5	MET	Srinivaspura	Mr. Naryanswamy T	2
6	ICDSS	Malur	Mr. Ramachandrappa	3
7	AGS	Mulbagal	Mrs. Aruna A	16
8	Amara Foundation	Mulbagal	Mrs. Chandrakala	1
9	PHRS	Mulbagal	Mr. K Ramesh	2
10	ASK	Bangarpet	Mr. Narayanaswamy	1
11	SIREADS	Srinivaspura	Mr. Krishnamurthy	2
12	A G A Samsthe	Mulbagal	Mrs. Asha S	1
13	Grameena Mahila Okkuta	Mulbagal	Mrs. Jayalakshmi	1
14	TGS	Bangarpet	Mrs. Renuka B K	1
15	Kreji Creaters	Kolar	Mr. M R Kadam	1

SEASON -2: DETAILED REPORT

Project period: From March 2022 to August 2022

















A PROJECT REPORT ON

LAKE DESILTING & SILT APPLICATION PROJECT

Project period: From March 2021 to July 2021 From March 2022 to August 2022

	PROJECT ACHIVEN In SEASON -2 Period: MARCH 2022	
>	No. of Modules progressed	47 Modules / 34 Lakes
>	No. of Tractor loads of silt transported by the farmers	1,37,491Tractor Loads
>	No. of M3 silt excavated	3,84,975 CuM
>	Total No. of litres water storage capacity enhanced	3,84,975,000 Litres

5 TALUKS in Kolar District: Taluk wise details;
1. Kolar Taluk - 20 modules & 9 Lakes
2. Mulbagal Taluk-20 module & 18 Lakes
3. Bangarpet Taluk-1 Module &1Lake
4. Srinivaspur Taluk-3 Module & 3 Lakes
5. Malur Taluk-3 module & 3 Lakes

PROJECT ACHIVEMENT In SEASON -2 Period: MARCH 2022 to SEPTEMBER-2022

•	District	Kolar
•	Taluks covered under the RPOW project in the District	5 Taluk (Except KGF)
•	Villages covered in the project	31 Villages
•	LAKES covered in the project	34 Lakes
•	Silt excavation work progressed in MODULES	47 Modules
•	No. of Modules completed 4000 loads	21 Modules
•	No. of MODULES completed 10000 cum	39 Modules
•	Farmers benefitted from Lake / Tank silt	675 Farmers / 3375 Population
•	Communities, Families, Population benefitted from the RPOW	31 Community /7150 Families / 32900 Population

PROJECT ACHIVEMENT In SEASON -2 Period: MARCH 2022 to SEPTEMBER-2022

Lakes-34 **Grama Panchayat-22** Village-32 18 Walni Malur 40/gr Millogeal **F**olar 3,84,975 CuM achived **Worked Modules - 47** TractorTrolleys - 1,37,491 171886 61388 155266 55452 6371 10210 4070 28588 17839 11396

Malur

Srinivaspur

Bangarpet

Kolar

Mulbagal

Millagal

Siniyaspur

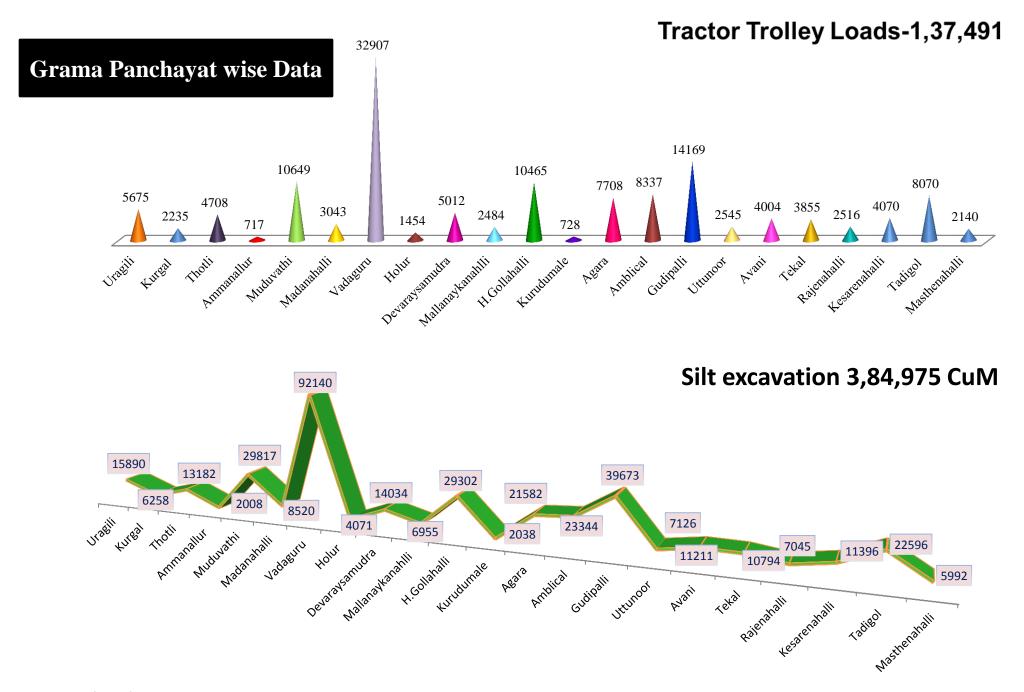
Malur

Milloses

Malur

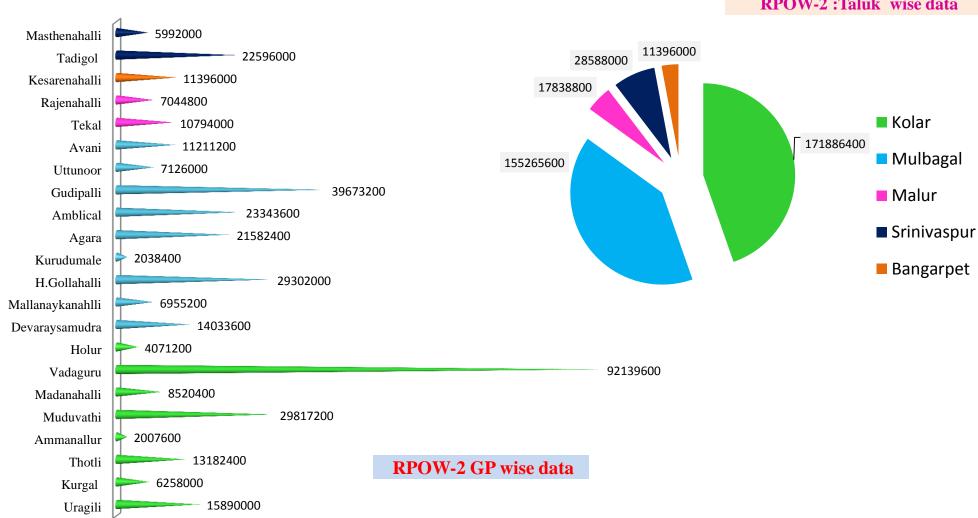
Kolar

Stinivaspur



Water storage capacity increased to 38,49,74,800 Liters





PROJECT In SEASON -2 Period: MARCH 2022 to SEPTEMBER-2022

RECEIPTS	AND PAYMENTS	
DONORS	RECEIPTS (Rs.)	EXPENSES Rs.
Caring Friends	32,77,616	32,77,616
ATE Chandra Foundation	10,00,000	10,00,000
Rotary club of Indiranagar, Bangalore	14,97,000	14,97,000
IITFORIIT	7,77,200	7,77,200
TOTAL	65,51,816	65,51,816

FAI	RMERS INVESTMENT		Farmer' s	Donor
JCB / Machine's expenses	Tractor 's expenses	Total		contribution %
Rs.41,24,730	Rs.2,06,23,650	Rs. 2,47,48,380	80%	20%

RPOW- Adopted Operating Mechanism & Monitoring Information Systems

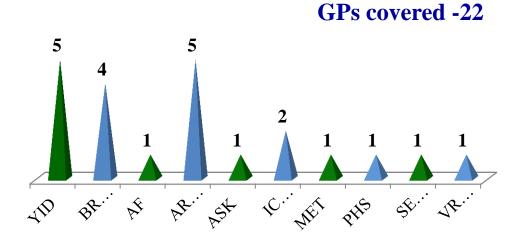
The project is carried out using the system comprises below;

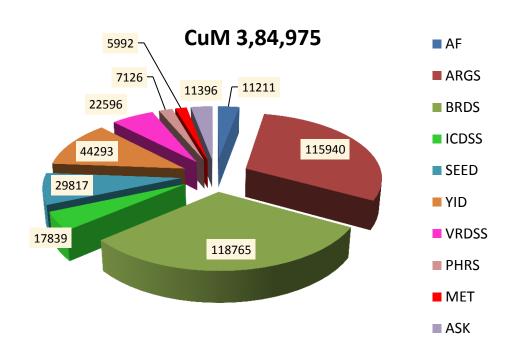
- Strengthening the knowledge and expertise of CAs and Supervisors on the whole processes and operation, supervision, community orientation, and planning of the RPOW as well as its financial practises and execution requirements.
- Common MoU with the communities / Committees
- Preparation of silt demand list from Farmers
- Lake/Tank information collection.
- Coordination with Local Government as well as District administration.
- Mobilizing Machines with legal compliances.
- Organising the Farmers to mobilise tractor trolleys
- Marking the site for silt excavation 100*100*1meter.
- Perspective photos in 3 stages.

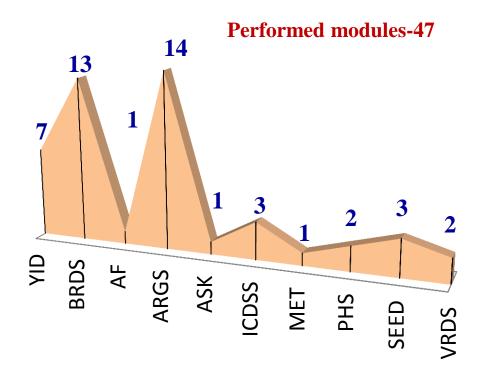
RPOW- Operation Mechanism & Monitoring Information Systems The project is carried out using the system comprises below;

- MoU with CAs.
- An agreement with Machine Owners/contractors.
- Creating whatSapp group of partners (DA, CA & Supervisors) for sharing the information
- Monitoring of Farmer's log book, everyday.
- Daily monitoring of Machine meter readings (Start reading & ending)
- Documenting daily Data.
- Sharing daily data with CAs.
- Systematic finance operation & payment system.
- Virtual Meetings with CAs.
- Monthly twice review meetings with CAs.
- Conflict resolving.
- Data filling in AVNI app.
- Site visit and physical measurement.
- Involvement of Grama Panchayaths to seek NOC.
- Efforts to Convergence with GP and others.

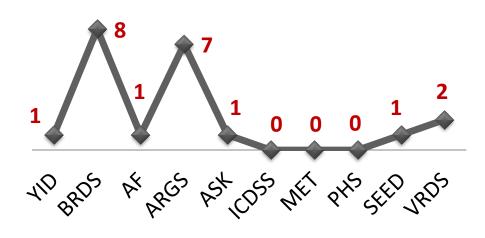
Community Anchor's OUT PUT







Completed modules-21 with 4000 TTLs



Module wise progress DONOR - ATE Chandra foundation

SL No	Taluk	GP	Village	Tank	Module 's No	CA	CEO	Work started on	Work Days	Status	Work stopped on	Load balance	Machine Hour	Load Achieved	Hour productivit y	Machine cost Rs.	Farmer's cost share Rs.	Farmer's Tractor cost
1	Kolar	Uragili	Naganala	Basaveshvara tank	1	YIDS	H. Nagaraj	9.4.22	15	Complete	26.5.22	-1	234	4001	17.1	117529	120030	600150
2	Kolar	Uragili	Naganala	Basaveshvara tank	2	do	do	3-5-22	9	Rain stopped	11.6.22	2326	108	1674	15.5	49174	50220	251100
3	Kolar	Kurgal		Maliyappanahal likere	1	do	do	4-5-22	11	Rain stopped	13.6.22	1765	149	2235	15.0	65653	67050	335250
4	Kolar	Thotli	Aleri	Alerikere	1	do	do	23-5-22	11	Rain stopped	13.7.22	1367	156	2633	16.9	77344	78990	394950
5	Kolar	Thotli	Aleri	Alerikere	2	do	do	28-5-22	9	Rain stopped	26.7.22	1925	120	2075	17.3	60953	62250	311250
6	Kolar	Ammanallu r	Ammanal lur	Sathyamadevik ere	1	do	do	6-11-22	4	Rain stopped	27.6.22	3283	50	717	14.3	21062	21510	107550
7	Kolar	Muduvathi	Nernahall i -	Doddakere	1	SEED	Mallamma	27-4-22	18	Complete	5.6.22	-40	273	4040	14.8	118675	121200	606000
8	Kolar	Muduvathi	Jangalaha lli	Naghalakere	1	do	do	06-2-22	12	Rain stopped	14.6.22	263	243	3737	15.4	109774	112110	560550
9	Kolar	Madanahall i	Velagalab ure	Ediganakere	1	BRDS	Chowdappa S H	12-3-22	18	Rain stopped	26.7.22	957	208	3043	14.6	89388	91290	456450

DONOR- Caring Friends

SL No	Taluk	GP	Village	Tank	Module 's No	CA	CEO	Work started on	Work Days	Status	Work stopped on	Load balance	Machine Hour	Load Achieved	Hour productivit y	Machine cost Rs.	Farmer's cost share Rs.	Farmer's Tractor cost
1	Kolar	Vadaguru	Vadugur	Doddakere	6	do	do	07-5-22	12	Complete	29.5.22	-4	254	4004	15.8	117618	120120	600600
2	Kolar	do	Vadugur	Doddakere	7	BRDS	Chowdappa S H	29-5-22	15	Complete	17.6.22	-2	259	4002	15.4	117559	120060	600300
3	Kolar	do	Vadugur	Doddakere	8	do	do	30-5-22	20	Complete	13.7.22	-5	263	4005	15.2	117647	120150	600750
4	Kolar	Holur	Kamasandra	Anekatteke re	1	do	do	24-6-22	5	Rain stopped	28.6.22	2546	91	1454	16.0	42711	43620	218100
5	_	Devaraysa mudra	Yalagondahall i	Jambukere	1	do	do	06-2-22	17	Stopped	5.7.22	1507	173	2493	14.4	73232	74790	373950
6	_	Devaraysa mudra	Yalagondahall i	Jambukere	2	do	do	04-6-22	6	Rain stopped	12.6.22	1481	122	2519	20.6	73996	75570	377850
7	_	Mallanayka nahlli	Batuvarnahalli	Pulkunteke re	1	YIDS	Hoohalli Nagaraj	14-6-22	18	Rain stopped	26.7.22	1516	162	2484	15.3	72968	74520	372600
8	Mulbagal	H.Gollahall i	Nachahalli	Venkataku nte	1	ARGS	Aruna	12.0.22	4	Community stopped	15.4.22	2362	97	1638	16.9	48116	49140	245700
9	Mulbagal	H.Gollahall i	Kadirenahalli -	Shettikunte	1	do	do	12.4.22	22	Complete	26.5.22	-3	243	4003	16.5	117588	120090	600450
10	Mulbagal	H.Gollahall i	Shankarapura	Bodaganak untekere	1	do	do	01-6-22	6	Rain stopped	11.6.22	3192	50	808	16.3	23735	24240	121200
11	Mulbagal	Kurudumal e		Doddakere	1	do	do	09-5-22	3	Rain stopped	6.1.22	3272	45	728	16.3	21385	21840	109200

DONOR- Caring Friends

SL No	Taluk	GP	Village	Tank	Modul e's No	CA	CEO	Work started on	Work Days	Status	Work stopped on	Load balance	Machine Hour	Load Achieved	Hour productivit y	Machine cost Rs.	Farmer's cost share Rs.	Farmer's Tractor cost
12	Mulbagal	Agara	Sathanuru	Sathanurkere	1	do	do	26-05-2022	12	Complete	29.6.22	-250	264	4250	16.1	124844	127500	637500
13	Mulbagal	Agara	Kondenahal li	Ajjanakere	1	do	do	11-07-2022	18	Rain stopped	30.7.22	542	206	3458	16.8	101579	103740	518700
14	Mulbagal	Amblical	Tathigatta	Ralakunteker e	1	do	do	30-05-2022	10	Complete	1.6.22	-276	260	4276	16.4	125608	128280	641400
15	Mulbagal	Amblical	Tathigatta	Doddakere	1	do	do	02-06-2022	15	Complete	19.6.22	-61	246	4061	16.5	119292	121830	609150
16	Mulbagal	Gudipalli	Nagenahalli -	Doddakere	1	do	do	24-06-2022	10	Complete	3.7.22	-1	249	4001	16.0	117529	120030	600150
17	Mulbagal	Gudipalli	Nagenahalli -	Doddakere	2	do	do	12-08-2022	10	Project stopped	18.8.22	1695	141	2305	16.3	67709	69150	345750
18	Mulbagal	Gudipalli	Kallarasana halli	Chinnapanak untekere	1	do	do	25-06-2022	13	Complete	11.7.22	26	246	3974	16.2	116736	119220	596100
19	Mulbagal	Gudipalli	Gudipalli	Doddakere	1	do	do	12-07-2022	5	Rain stopped	16.7.22	2800	75	1200	16.1	35250	36000	180000
20	Mulbagal	Gudipalli	Uobandahal li		1	do	do	14-07-2022		Rain stopped		1311			16.2	78989	80670	403350
21	Mulbagal	Uttunoor	Banahalli	Banahallikere -	1	PHS	K Ramesh	26-05-2022	6	Rain stopped	1.6.22	1694	154	2306	15.0	67739	69180	345900

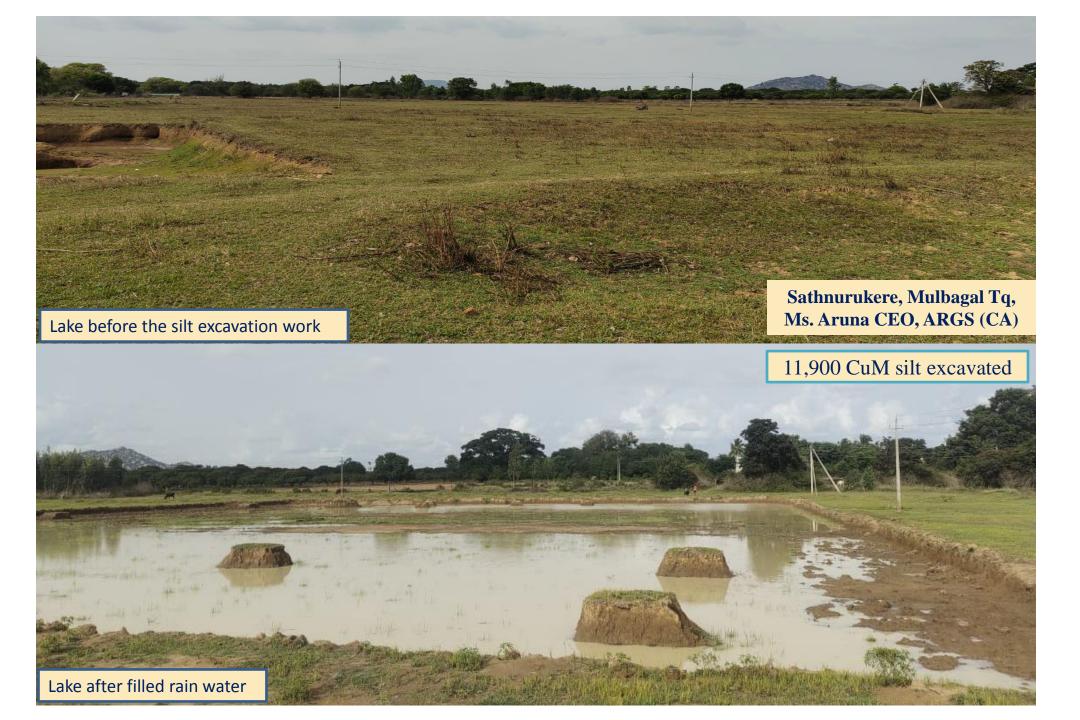
DONOR- Caring Friends

SL	Taluk	GP	Village	Tank	Modul	CA	CEO	Work started	Work	Status	Work	Load	Machine	Load	Hour	Machine	Farmer's	Farmer's
No					e's No			on	Days		stopped on	balance	Hour	Achieved	productivit	cost Rs.	cost share	Tractor cost
															у		Rs.	
22	Mulbaga	Uttunoor	Vanigana	Vaniganahallik	1	PHS	K Ramesh	16-06-2022	2	Rain	17.6.22	3761	14	239	17.0	7021	7170	35850
	1		halli	ere						stopped								
23	Malur	Rajenahalli	Doddakal	Shettykere	1	ICDSS	do	12.04.2022	2	Politics	13.4.22	3761	19	239	12.4	7021	7170	35850
		9	lahalli -	,					_	stopped							, , , ,	
2.1	26.1	D : 1 III	CI II I	NT 1 11 1		Tabaa	,	07.05.000	0		25.7.22	1500	1.10	2255	160		60210	241550
24	Malur	Rajenahalli		Nagarakalluker e	1	ICDSS	do	07-05-2022	9	Rain stopped	26.5.22	1723	142	2277	16.0	66887	68310	341550
			IIdiidiii							stopped								
25				Thimarayanake	1	ASK	M.Narayana	13.04.2022	27	Complete	26.6.22	-70	261	4070	15.6	119556	122100	610500
	et	lli	halli	re			swamy											
26	Srinivas	Tadigol	Tadigol	Hosakere	1	VRDS	Shivappa D	27-04-2022	25	Complete	17.6.22	-4	258	4004	15.5	117618	120120	600600
	pur	Ü					T											
							_											
27	Srinivas pur	Tadigol	Tadigol	Doddakere	1	do	do	14-05-2022	23	Complete	25.6.22	-66	243	4066	16.7	119439	121980	609900
	Pui																	
28	Srinivas	Masthenaha		Bhoraganahalli	1	Matha	T Narayana	16-05-2022	11	Rain	2.6.22	1860	138	2140	15.5	62863	64200	321000
	pur	lli	ahalli	kere			swamy			stopped								

DONOR- Rotary club of Indiranagar, Bengaluru

SL No	Taluk	GP		Tank	Module no	NGO	CEO	Work started on	Work Days	Status	Work stopped from		Machin e Hour	Load Achieved	CuM Achieved	Per hour load	Machine cost Rs.	Farmers cost share Rs.	Farmer's Tractor cost
1	Kolar	Vadaguru	Vadaguru	Doddakere	1	BIRDS	Chowdappa S H	9.4.22	11	Complete	21.4.22	110	249	3890	10892	15.6	114269	116700	583500
2	Kolar	Vadaguru	Vadaguru	Doddakere	2	do	do	12.4.22	15	Complete	6.5.22	-31	254	4031	11287	15.9	118411	120930	604650
3	Kolar	Vadaguru	Vadaguru	Doddakere	3	do	do	14.4.22	27	Complete	13.5.22	-32	250	4032	11290	16.1	118440	120960	604800
4	Kolar	Vadaguru	Vadaguru	Doddakere	4	do	do	22.4.22	14	Complete	9.5.22	-39	249	4039	11309	16.2	118646	121170	605850
5	Kolar	Vadaguru	Vadaguru	Doddakere	5	do	do	5.5.22	11	Complete	28.5.22	-21	253	4021	11259	15.9	118117	120630	603150
6	Kolar	Vadaguru	Vadaguru	Doddakere	9	do	do	11.7.22	4	Rain stopped	16.7.22	3117	62	883	2472.4	14.3	25938	26490	132450
7	Malur	Tekal	Mitiganahall i	Taalikere	1		Ramachandr appa	9.4.22	14	Rain stopped	11.5.22	145	259	3855	10794	14.9	113241	115650	578250
8	Mulbagal	H.Gollahalli	Thornahalli	Thornhallikere	1	ARGS	Arunodaya	2.6.22	16	Complete	26.6.22	-16	247	4016	11245	16.3	117970	120480	602400
9	Mulbagal	Avani	Virupakshi	Bagalakunteke re	1	AF	Chandrakala	9.4.22	19	Complete	3.7.22	-4	245	4004	11211	16.3	117618	120120	600600
10	Kolar	Muduvathi	Nernahalli	Doddakere	2	SEED	Mallamma	14.5.22	7	Rain stopped	12.6.22	1128	187	2872	8041.6	15.3	84365	86160	430800



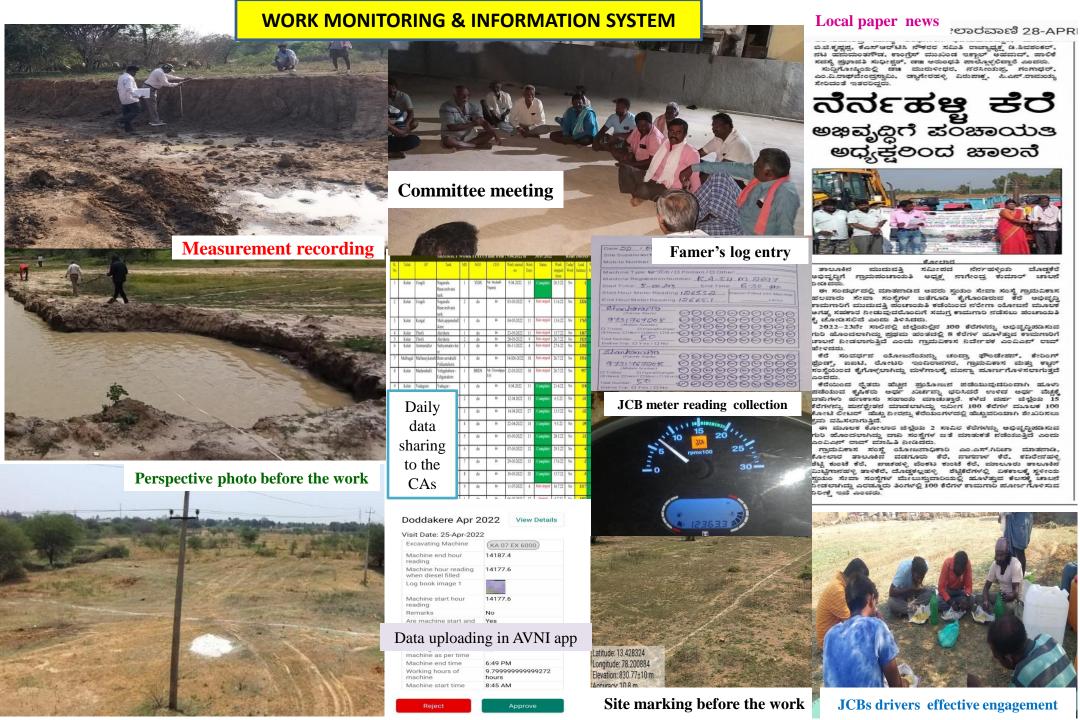














CHALLENGES & REASONS FOR SLOW PROGRESS

- Excavation work not started in season
- Farmer's investment for excavation and silt transportation are major key challenging issue
- Community's committees not strengthened
- Early monsoon
- Works stopped due to RAIN
- ➤ All CA partners are not showing much interest
- Supervisors lesser capacity in working with farmers & technical
- Output less than 16 trolley loads
- Requiring more number of JCB hours
- Extending more number of days
- ➤ More time requiring to operate the AVNI app also internet

- Management of Tractors, Drivers, Farmers are more challenging and time consuming factors. In time, required number of trolleys, full day engagement as per planned schedule is not up to mark as expected. Farmers have changed their priorities in farm activities. Attracting the farmers is difficult in 50% JCB cost sharing and with their cost tractors.
- Engaging new model or high capacity (hp) machines are very difficulties by the implementers because, Diesel rate is hiked and rent rate which is fixed is less per hour as their views.
- Less interest in community involvement & committee responsibilities.
- Farmers have no time to sit and discuss about their own development activities.
- Village conflicts & politics interferences.
- Govt. / GP persons leading bribes.
- Silt commercialization crises & threats.
- Seasons / Rain/ farming disturbance.
- Sunday/Festival holiday.

- ✓ Non cooperation in time management by the tractor drivers.
- ✓ Waste of time in mobile usage
- ✓ High distance, less trolleys
- ✓ Road repair issues
- ✓ Issues of Jungle cleaning in the silt excavation area
- ✓ Silt quality and selection issues
- ✓ More number of M3 silt loading to manage farm distance
- ✓ Single JCB operating
- ✓ Automatic speed controlling system in JCBs
- ✓ Driver's mobile disturbance
- ✓ Diesel & Driver bata & food expenses issues etc...
- ✓ Conflict resolutions process
- ✓ Govt. convergence
- More number of days time consuming to processing the project activities

SEASON -1: DETAILED REPORT

Project period: From March 2021 to July 2021

Tank De-siltation Project details in season -1 Year 2021-22

District: Kolar

* Taluk wise tanks covered under the project :

Kolar-3, Malur-3, Bangarpet-1,

Mulbagal-4 & Srinivaspur-4.

- * Total work has been done in 15 tanks.
- * Total goal of the de-siltation is 1,80,000 m3
- * Total 1,06,364 m3 / 46116 trolleys silt has been excavated in the 15 Tanks.
- * 1,06,364,000 liters of water holding capacity has been increased by excavation of tanks silt.

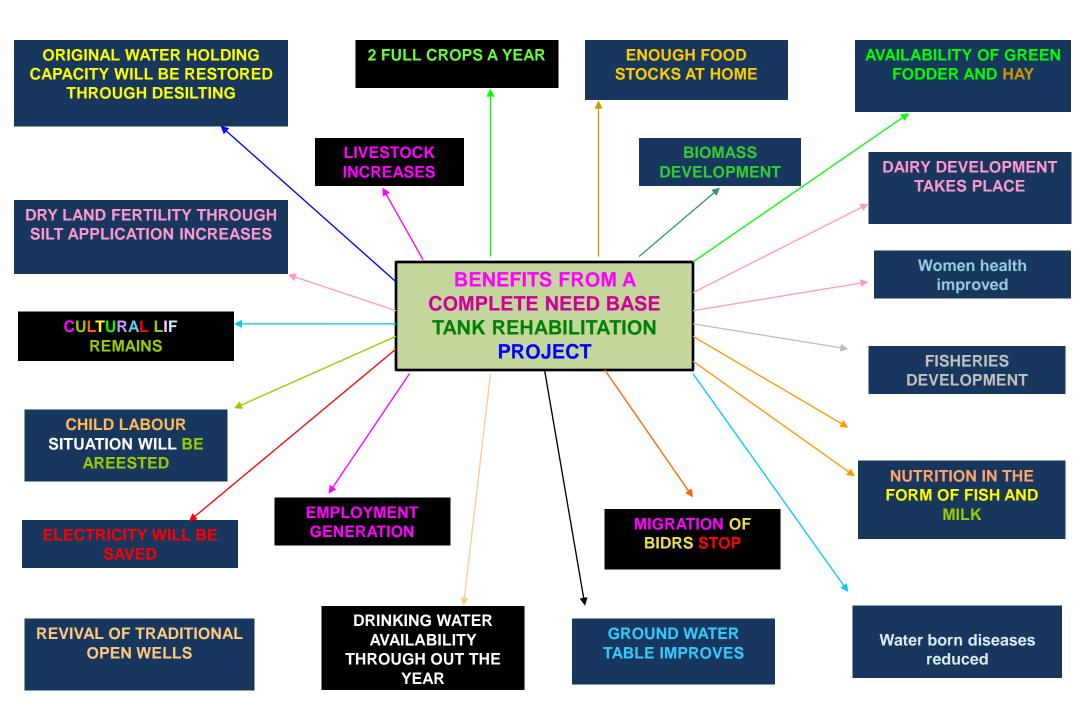
Project details in SEASON -1 May to July 2021

- * Total No. of days worked (average): 18
- * Total No. of Farmers taken silt: 426
- * Total No. of JCB hours :2923
- * Total budget invested for excavation: Rs. 97,83,829
- Donors grants for excavation 22,59,394 & for HR Rs. 2,72,649/Total Rs.25,32,043/- From the Donors
- FARMERS INVESTMENT for silt transport is Rs. 69,17,400/- (46116 trolleys) & cost share for JCB fuel by farmers Rs.3,71,576/- Total by the farmers Rs.72,88,976.

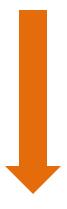




Tank (Lake) WATER BENEFITES



Tank (Lake) SILT BENEFITES



APPLYING TANK SILT (IRRIGARTION WATER BODY) ON DRY LAND FARMS FOR IMPROVING SOIL FERTILITY AND PRODUCTIVITY

Increase in yield, resistance to pests and diseases, improvement in quality of produce and retention of moisture in soil and saving of expenditure on inorganic fertilisers due to application of tank silt to lands:

Crop	Average co (quintals pe	% increase	
	Without tank silt	With tank silt	
Groundnut (protective irrigation)	9	14.4	60
Ragi (irrigated)	22	40	82
Ragi (rain-fed)	9	16.2	80
Maize (irrigated)	30	53	77
Potato (irrigated)	160	268	90
Tomato Hybrid (irrigated)	400	720	80
Mulberry lead yield (irrigated)	16	28	80

Tank (Lake) GROUND WATER Situation in Kolar District



Table explaining the ground water situation of the Kolar district in Karnataka in India

SI No	Taluk	Net Annual Ground water availability (HAM)	Existing Ground water draft for all uses (HAM)	Net Ground water availability for future Irrigation Development (HAM)	Categorization based on Stage of Ground water Development (% area)			
					Safe	Semi critical	Critica	Over Exploited
1	Bagepalli	5700.27	6997.83	989.59	8	47	-	45
2	Bangarpet	9765.22	21852.10	0	_	-	-	OE
3	Chikaballpur	5911.60	13159.66	0	_	-	-	OE
4	Chintamani	4530.98	8529.95	0	_	-	-	OE
5	Gauribidanur	5084.24	11014.26	0	-	-	-	OE
6	Gudibanda	1227.56	2374.02	0	-	-	-	OE
7	Kolar	4569.00	6726.21	0	-	-	-	OE
8	Malur	4872.98	11629.10	0	-	-	-	OE
9	Mulbagal	6991.22	13986.12	0	-	-	-	OE
10	Sidlaghatta	5738.53	13154.90	0	-	-	-	OE
11	Srinivaspur	4192.36	5522.67	0	-	-	-	OE
	Total	58584	114947	989.59				

Tank (Lake) Integrated Structure



Tank /LAKE System **CATCHMENT AREA** FEEDER CANALS **Waste weir TANK BED AREA** Sluige **TANK BUND** Waste weir channel **Irrigation** canal **Command area**