

Offsetting Carbon Footprints through Community Based Plantation in South Rajasthan

Quarter Report : April ~ June'2024



**MAKEMYTRIP
FOUNDATION**



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Executive Summary

This project objective to improve the ecology and create potential to offset carbon through community pasturelands (grassland) and its protection through community-based approach. The project will create vegetative cover of 4,00,000 native trees in rural and tribal pockets of Udaipur, Salumber and Rajsamand districts of southern Rajasthan. The project will create a potential of 4,403 tons per year of carbon sequestration, after minimum 5 ~ 6 years of the project.

During the reporting period, field survey for site selection has been started. The advance actions through physical works have been started for site protection, pit digging and soil-water conservation for targeted plantation.

The key highlights of this quarter are as follows:

- 15 common pasturelands covering an area of 488 hectares have been selected for the targeted plantation.
- 26 capacity building events held, outreach of 583 people.
- 21,089 person-days have been generated by engaging local community and provided them wage employment against physical works completed.
- There are approx. 13,000 standing tree biomass of 10~12 species as natural vegetation at regenerating common pastureland.

Progress so far:

1. Technical Survey:

A technical cum field survey was undertaken for estimation of physical interventions like pit digging, soil-water conservation measures, loose-stone protection wall, wire fencing and GPS survey. Village meetings were conducted involving community and Gram Vikas Samooh to engage local people as wage laborers for completing physical works planned and estimated for the selected sites. There is a total 15 common pastureland sites covering an area of 488 hectares across the 7 blocks of Udaipur, Salumber and Rajsamand districts.

Details of sites selected are as below **Table 1:**

S. No.	Name of District	Name of Admin Block	No. of the Site	Area (in ha)	Outreach (HHs)	Target plantation	Remarks
1	Udaipur	Kurabar	2	78	645	32,000	-Common pastureland selected covering an area of 488 hectares. -Outreach of 3,732 households.
2		Bhinder	1	16	520	7,000	
3		Rishabhdev	2	68.61	218	34,000	
4		Kherwara	2	98.08	580	46,900	
	Sub Total		7	261	1,963	119,900	-Loose-stone fencing and pit digging work has been completed.
5	Rajsamand	Rajsamand (Kankroli)	1	16	255	6,400	-Vegetative measures will be geared-up around Mid-July, once the while better rainfall at the time.
6		Kumbhalgarh	6	194	1314	70,000	
	Sub Total		7	210.44	1,569	76,400	
7	Salumber	Sarada	1	16.66	200	5,000	
	Sub Total			1	16.66	200	5,000
	Total		15	488	3,732	2,01,300	

2. Baseline survey:

A baseline survey was conducted to ascertain basic information of demography, protection status, landscape / vegetation types and existing species naturally growing at the site. This also includes GIS survey of each site for mapping/area demarcation. There is natural vegetation of approx. 13,000 trees (an average of 10~12 species) and 2,234 shrubs (3~4 species) are exists across the all 15 sites covering an area of around 488 hectares. The dominant tree species are viz. Karanj (*Pongamia pinnata*), Neem (*Azadirachta indica*), Ronjiya (*Acacia leucophloea*), Dhawada (*Anogeissus latifolia*), Sitafal (*Annona squamosa*), Churel (*Holoptelia integrifolia*), etc. There are some alien invasive species like Vilayati babool (*Propospis juliflora*) which is dominant over native species and adversely affects the natural generation of existing biomass. There are only 2~3 sites where grass fodder of about 8,000 bundles is being harvested by 85 households. There is approx. 7 hectares area comes under encroachment which was resolved through village institution i.e. Gram Vikas Samooh involving Gram Panchayat and community.

A summary of data analysis is as below **Table 2**

Table 2:

S. No.	Name of District	Name of Admin Block	No. of the Site	Area (in ha)	Benefitting households	Scope of plantation (Target)	Encroached by No. of households	No. of Trees	No. of Species	Last Grass harvesting (No. of Bundles)	No. of households harvest grass fodder	No. of households collect fuel-wood	No. of households collect NTFP	
1	Udaipur	Kurabar	2	78	645	32,000	1	2	4330	14	6000	40	70	0
2		Bhinder	1	16	520	7,000	0	0	168	9	0	0	0	0
3		Rishabhdev	2	68.61	218	31,000	0	0	587	12	0	0	0	0
4		Kherwara	2	98.08	580	46,900	0	0	1413	5	0	0	0	0
Sub Total			7	261	1,963	1,16,900	1	2	6498		6000	40	70	0
5	Rajsamand	Rajsamand (Kankroli)	1	16	255	6,400	0	0	580	14	0	0	100	0
6		Kumbhalgarh	6	194	1314	71,000	5.5	3	2142	13	2000	36	390	380
Sub Total			7	210.44	1,569	77,400	6	3	2722		2000	36	490	380
7	Salumber	Sarada	1	16.66	200	5,000	0	0	3689	6	0	6	150	90
Sub Total			1	16.66	200	5,000	0	0	3689	6	0	6	150	90
Total			15	488	3,732	1,99,300	7	5	12909		8000	82	710	470

3. Physical Interventions:

The physical interventions e.g. loose-stone protection wall/wire fencing, pit digging and soil-water conservation has been planned with community and engaged them as a wage labourer to accomplish the task. The demarked area of sites has been protected by loose-stone protection wall/ wire fencing, at some sites bio-fencing (of *thor*, *jatropha*, etc.) has been also promoted to increase green cover. Pit digging works at across the sites have been completed to achieve target of planting 2,00,000 saplings. The soil-water conservation measures like loose-stone check dam, gully plugs, contour trenches, box trenches, etc. has been implemented during the period. A total of 21,089 person-days (women -20,882 & Men-207) have been generated by the implementation of physical interventions during the period. Maximum engagement of women approx.99%

4. Capacity Building Events:

26 community meetings cum orientation trainings were conducted for the field teams and community members during the reporting period. There are total reached to 583 people (331women and 252 men).

Details are given below in **Table 3:**

The Environment day was celebrated at Sagatri village where common pastureland covering an area of 38 hectares is being protected and restored ecologically. There are around 12,000 saplings of native tree species is targeted to plant for the period of first year. About 500 people gathered from surrounding 7 villages including 2 project villages, forest department officials also took part in this event. The participants contributed by taking oath of protection and conservation of their village pasture through promoting vegetative measures e.g. planting, tree seeding, vegetative cuttings, etc. and physical – social fencing. All participants have given commitment of pasture conservation by putting their fingerprints on white cloth for contributing towards Environment day'2024 theme - *Our land, Our Future*. The village institutions i.e. Gram Vikas Samooh Sagatri and Bori villages contributed to this event by hosting a feast to all participants from villages.

Table 3:

Districts	Name of Block	No. capacity building event held	Outreach			Remarks
			(No. of people)			
			Men	Women	Total	
Udaipur	Kherwara	8	86	114	200	-On-site technical training cum orientation held with community for physical interventions planned. -Community meetings cum orientation of restoration of village pastures through protection and vegetative measures under the project. - Training cum orientation of project field team for vegetative measures planned for the monsoon period. -Planning to engage local community as wage laborer to accomplish physical works.
	Rishabhdeo	6	48	78	126	
	Bhinder					
	Kurabar					
Salumber	Sarada	2	31	27	58	
Rajsamand	Kumbhargarh	8	63	68	131	
	Rajsamand (Kankroli)	2	24	44	68	
Total		26	252	331	583	

5. Sourcing nursery seedlings and Wild seed collection:

The field team visited and contacted to private and government forest department nurseries in Rajasthan and adjoining Gujarat state to ensure availability of species-wise (10~12 native species) seedlings for plantation. A demand letter has been sent to respective district forest officer (DFO) to provide saplings of selected species. The saplings were lifted in advance for some selected sites from nurseries and stocked at sites before monsoon comes to minimize risk of availability of sapling at the end of time.

Apart from sourcing seedlings, there wild seeds of native species have been also collected by local community on cost basis for promoting assisted vegetative measure like tree seeding at selected sites.

6. Field Monitoring:

Regular field visits are being conducted by project team for monitoring of on-going physical interventions. There are on-site technical guidance has been given by engineers to site supervisor (MATE) involving engaged community members. The regular dialogues are being held with community through village meetings for planning and effective implementation of project activities at field level.

7. Achievement Quarter 2 & Plan for Quarter 3:

There are target of planting 2, 00,000 saplings at commons pastureland.

The component-wise achievement quarter-2 and plan quarter-3 is given as below

Table 4:

S.No.	Key Activities / Particulars	Unit	Overall Target	Achievement Quarter 2 2024	Plan Quarter 3 2024	Remarks
1	Site selection and Technical Survey	Hectares	1,000	488	0	Identifying and selection of the common pastureland and its current legal status.
2	Demarcation and mapping of the site	Hectares				Technical assessment and estimation of physical works e.g. stone fencing/wire fencing/bio fencing (live fencing), pit digging along with soil-water conservation, measures - selected total 15 sites of common pastureland.
3	Baseline survey	Nos	15			GIS mapping and area demarcation of sites involving village institutions and community.
3	Protection Measures	Hectares	1,000			Basic data information of demography and present situation of selected sites of pasture
4	Lay-out & Pits digging along with soil- water conservation measures	Nos.	4,00,000	2,00,000	-	Physical fencing by loose-stone protection wall / wire fencing, bio-fencing, etc.
5	Pits verification	Nos.		2,01,300	-	Lay-out and Pit-digging of sized 1.5X1.5X1.5 ft.
6	Saplings Need Assessment	Nos.		2,05,000	-	Verifying pits for its technical specifications and to assess nos. of pits are ready for plantation.
7	Explore the Nurseries	Nos.		10	-	Site specific species-wise need assessment of nos. of saplings required for plantation; kept additional to mitigate operational losses during the transport.
8	Procurement of the saplings	Nos.		0	2,00,000	Conducted survey visits to locate nurseries nearby for species-wise saplings availability at forest department and other private nursery growers to generate demand & booking of saplings.
9	Preparation of landscape plan	Nos. As available sites of village pastures		15	0	Procurement and transport of saplings at the sites is on-going.
10	Plantation of Saplings	Nos.	4,00,000	0	2,00,000	Site specific species-wise landscape plan for ecological plantation at common pastureland.
11	Capacity building and community mobilization					Vegetative measures of planting saplings, tree seeding, planting vegetative cuttings, etc. at selected sites during better rainfall of monsoon period.
13	Documentation & Communication					Field level orientation meetings cum on-site trainings with field team and community to execute the physical interventions and vegetative measures with its technical know-how. 26 such events has been conducted during the period. .
13	Field monitoring					Photography, video shoot, drone-shoot, social media communication at Quarter report on regular basis
						Regular field visits by project team for monitoring of on-going completed works
