

Rangeland Awards 2023

**Profiles of Individuals, Activists
and Local Institutions**



March 2024

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Prepared by :

South Asia Support Group for International Year of Rangeland and
Pastoralists 2026

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**International Support Group (ISG)
for the International Year of Rangelands
and Pastoralists 2026 (IYRP)**

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Date : 20 Mar. 2024

FOREWORD

SEVA, in association with Foundation for Ecological Security, Anand, Indian Grassland and Fodder Research Institute, Jhansi supported by Ministry of Fisheries, Animal Husbandry and Dairying in the Government of India, organised a national workshop on “Resilience of Indian Rangeland and Pastoralists: Role and Livelihood” on 21-23 Dec 2023 at ICAR-IGFRI, Jhansi, India. As part of this workshop, the Rangeland 2023 Award ceremony is being organised on 28 March 2024 at Madurai Tamilnadu. It is the second round of Rangelands and Pastoralists awards and out of 18 entries received, the selection committee selected the 10 best entries, which include individuals, activists, local village level institutions or groups who executed protection and regeneration of rangelands, common lands, pasture lands that are depended on by local communities or pastoralists for grazing their livestock. On this occasion, we congratulate the awardees who will be provided with certificates and cash money of Rs. 10,000. This venture, we believe will motivate them to continue such sustainable activities and that would further serve a source of inspiration for others to follow.

On 22 March 2022, United Nations declared 2026, the International Year of Rangelands and Pastoralists (IYRP 2026) in order to promote sustainable rangelands and pastoralism globally. Therefore, this awards events ceremony is part of recognizing and documenting best practices in the protection and regeneration of rangelands that will contribute towards the Sustainable Development Goals and protect the livelihoods of local communities.

Sincerely

I Samuels

IYRP ISG co-chair

20 March 2024



भा.कृ.अ.प. – भारतीय चरागाह एवं चारा अनुसंधान संस्थान
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Foreword

SEVA in association with Foundation for Ecological Security, Anand, Indian Grassland and Fodder Research Institute, Jhansi supported by Ministry of Fisheries, Animal Husbandry and Dairying, Govt of India organised national level workshop on “Resilience of Indian Rangeland and Pastoralists: Role and Livelihood” on 21-23rd Dec 2023 at ICAR-IGFRI, Jhansi, India. In continuation of this workshop, Rangeland 2023 Award ceremony is being organised on 28th March at Madurai Tamilnadu. It is the second round of Rangeland and Pastoralists awards and out of 18 entries received, the selection committee selected 10 best entries which include individuals, activists, local village level institutions or groups executed protection and regeneration of rangelands, common lands, pasture lands depended by local communities or pastoralists for grazing their livestock. On this occasion we congratulate the awardees who will be provided by certificates and cash money of Rs.10,000. This venture we believe will motivate them to continue such activities and it is a source inspiration for others to follow.

On 15th March 2022, United Nations declared International Year of Rangelands and Pastoralists 2026 (IYRP 2026) in order to promote sustainable rangelands and pastoralism globally. Therefore this efforts pioneering recognition and documenting best practices in protection and regeneration of rangelands will contribute towards SDGs and protect livelihoods of local communities who depend on rangelands.

Dated: 18.03.2024


(Vijay Kumar Yadav)



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Acknowledgements

United Nations declared 2026 as International Year of Rangeland and Pastoralists. The main objectives are to promote healthy rangeland and sustainable pastoralism. SEVA initiated Rangeland and Pastoralists Awards programme during 2021 onwards. Now Rangeland awards 2023 is the second round of competition at national level for receiving entries from individuals, communities or local institutions. We received 18 entries within the short period of announcement during December 2023. We selected 10 entries for award of Rs. 10,000/- for each awardee along with certificates.

We are thankful to Foundation for Ecological Security, Anand, Ministry of Fisheries, Animal Husbandry and Dairying, New Delhi. Department of Animal Husbandry, Govt. of Tamil Nadu for providing financial support both for organising national workshop on “Resilience of Indian Rangeland and Pastoralists: Role and Livelihood” on 21-23 Dec 2023 at ICAR-IGFRI, Jhansi, U.P. and Rangeland Award Ceremony at Dhan People Academy, Pulluthu, Madurai on 28 March 2024. Regional Support Group for International Year of Rangeland and Pastoralists (RISG South Asia) volunteers for documenting pastoralists, communities, panchayats protecting and regeneration of pasture land / common land, national level committee comprising Dr.ArunDixit, Dr.R.V.Kumar, Dr.D.R.Malavia, Dr.B.L.Manjunatha in evaluation of entries for awards. Our special thanks to new director of IGFRI Dr. Vijay Kumar Yadav, former director Dr. Amaresh Chandra, Dr.Palsaniya, Secretary of RMSI, Dr.AmitSingh, Dr.Kamini, IGFRI Scientists for extending all logistics and cooperation for this programme. We look forward for our continued association in order to promote socially inclusive and ecologically sustainable pastoralism through protection and regeneration of pasture land.

10-3-2024

P.Vivekanandan

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Promotion of Common Facility Centre for Pastoralist Services

Profile of Mr. Kayamdeen



Background of Mr. Kayamdeen

Mr. Kayamdeen (aged 54 years) is a pastoralist in Village Shiv Sagar, Narayanpura, Jodhpur, Rajasthan. He is having 75 sheep of Magra, 20 goats Sojat and Pipad breed, Gujarati, and Jaisalmeri breed. In this village there is a 1000 bigas of gochar land under the control of gram panchayat.

Details of Gochar land

In this village there is a 1000 *bigas* of *gochar* land under the control of gram panchayat. The gochar land locally called as *Muglai Nadi*. There are 3,000 to 5,000 thousand animals graze in this area and more than 500 families are dependent on this *Gochar*. The main means of livelihood in this village is Pastoralism.

In this *Gochar*, there are grasses like *Sevan* (*Lasiurus scindicus*), *Gathiya*, *Lahna*, *Dhaman* (*Cenchrus ciliaris*), *Bhut*, *Kati*, *Sareli*, *Bekariya*, etc. Trees and plants like bush *Ber*,





Baoli, ker (*Capparis decidua*), *Jaal* (*Salvadora oleoide*), *Kumat* (*Senegalia senegal*), *Phog* (*Calligonum polygonoide*), *Kikar* (*Acacia karoo*), etc. are found.

It is protected by the Gram Panchayat and the community. The Pasture Development Committee was formed by the Gram Panchayat and the committee manages the pastureland. A Pasture Development Committee has made a rule that no one can cut trees or plants in this pastureland.

Services provided by Mr. Kayamdeen



A Common Facility Center has been built on his own agricultural land located near the gauchar since 2021. Services such as shearing of wool, its cleaning and grading are provided on cost basis to other pastoralists. Wool is also purchased at this center and grading of wool is done by women. Grading is done to remove black hairs, old hairs and impurities from the pure wool. Due to this the women there are getting employment. Shearing is done at the cost of Rs. 40/sheep. Wool cleaning is done @ Rs. 10/sheep. Grading of wool is done @ Rs. 30/kg. The wool collected and graded is sold to URMUL @ Rs. 60-80/kg. He gets a profit margin of Rs. 5/kg after selling to URMUL. These services are provided here throughout the year (3 shearing seasons in a year). Around 5-10 quintals of wool is sold in a season and around 30 quintals of wool is sold in the entire year from this common facility center.

The Common Facility Centre has been designed to protect pastoralists from cold and heat waves during their migration. Facilities like fodder, medicine, water, and sheep shearing have been provided in this center on cost basis to the other pastoralists. For the convenience of drinking water for animals, a water tank of one lakh liter capacity has been built. He also purchases water from tankers supplied from other villages for use in cleaning of sheep and wool.



He also has one pickup Bolero vehicle which he uses to purchase feed and fodder from other areas for his livestock as well as other livestock keepers on cost basis. He also procures medicines and other necessary items required by other livestock keepers at his community facility center on costbasis. This has helped small livestock keepers from going to market for purchase of medicines and other essentials for their livestock.

After innovating on pasture, the nomadic cattle herders graze their animals in this pasture. Currently, this *Gochar* has the facility to graze 3 to 5 thousand animals and 500 families depend on it. It is useful for pastoralists to save themselves from cold and heat waves. Today, *Khejri* trees are found in large quantities on this land.

Traditional knowledge on herbal remedies for animals, the nutritional value of fodder species, and management of CPR / Pastureland :

1. If the *Jer* does not fall out after delivery to the animals, the pastoralists give Boil the *Kheenpshrub* with water and give it to the animal it will help to fall out the *Jer*.
2. In case of stomachache, the roots of the *Shinya* shrub are given by boiling with water.



Shinya shrub

3. When Aak milk falls into the eyes of animals, the eyes are washed by boiling water with Fog. This does not harm the eyes of the animal.

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Regeneration of Community Pastureland in Baja Nadila, Uttarakhand



Profile of Van Panchayat Baja Nadila

Background of Mr. Bhagwati Prasad Tamta

Mr. Bhagwati Prasad Tamta (aged 58 years) is the former panchayat president in village Baja Nadila in Borgaon, Bageshwar District, Uttarakhand. He is having 20 cows (8-Jersey; 12-Badri/Pahadi), 18 buffalos (12-Murrah; 6-Bhadawari/Pahadi); 61 goats (all chaugarkha)

He is owning 8-10 Nali (0.5 acre) and major crops grown are wheat, paddy, ragi, lentil, soyabean, bhatt

Details of Pasture land :

There is a community pasture land of 47.5 ha in this village locally called as *Nadil*.

Open grazing is not allowed in the forest, however, the forest remains open for collecting forage by lopping twigs of fodder trees and cutting grass for 4 months in a year. 35 families depend on the forest for fulfilling their fodder requirements. 20 cows and 18 buffalos and 61 goats feed on the fodder collected from the forest.



Figure 6: Van Panchayat Baja Nadila over the years [2004 (before intervention)-2023 (present status)]

Fodder species available : A total of 22 fodder species are available in the forest of which 14 are tree species - *Baaj* (*Quercus leucotrichophora*), *Bhimal* (*Grewiaoptiva*), *Quiral* (*Bauheniaverrigata*), *Kanol* (*Gloriosa superba*), *Khadik* (*Celtis australis*), *Garud* (*Radermachera xylocarpa*), *Falyant* (*Quercus glauca*), *Sanan* (*Dalbergia oojenensis*), *Padam* (*Prunus cerasoides*), *Reetha* (*Sapindus mukorossi*), *Kafal* (*Myrica esculenta*), *Utis* (*Alnus nepalensis*), *Bakain* (*Melia azedarach*), *Malu* (*Bauhinia vahlii*), 3 are shrub species - *Hisalu*

(*Rubus elepticus*), *Kirmoda* (*Berberis asiatica*), *Ghingaroo* (*Pyracantha crenulata*) and 5 are grass species - *Napier* (*Pennisetum purpureum*), *Rye* (*Lolium perenne*), *Auns* (*Dichanthium annulatum*), *Bamboo* (*Bambusa vulgaris*), *Ringal* (*Sinarundinaria falcata*).

Management of Pasture lands :

Van Panchayat and Women Group of Village Baja Nadila manage the forest under the supervision of Sirpanch of Van Panchayat.

Grazing of cattle is strictly prohibited. During the months when Van Panchayat remains closed, any kind of resource collection is strictly prohibited. A fee of Rs. 100 per family per season (twice a year) is collected from the villagers for accessing fodder from the forest. The initiative of rangeland restoration was taken 2 decades ago in 2004 by the then Sirpanch Mr. Roshan Lal. He started talking with people about the scarcity of fodder in their area and how it was affecting the livestock productivity. He brought together the community and encouraged them to participate in the development of range land. The Van Panchayat and women group of village Baja Nadila did planning for the restoration of their rangeland. They started the development of range land by developing a nursery of fodder plants, with the support from Forest Department and Himmotthan Society (an initiative of Tata Trusts). Land preparation for nursery development, construction of stone walls for protecting the nursery and rangeland from open grazing, digging of pits for saplings, digging of trenches for water conservation, plantation of saplings, manuring and weeding were done by the community people themselves. In due course of time they received guidance and saplings of different plant species for strengthening their range land. After the retirement of Mr. Roshan Lal from the post of Sirpanch, Mr. Bhagwati Prasad Tamta became the next Sirpanch in 2017 and did plantation and construction activities in the Van Panchayat. He strengthened the governance of Van Panchayat by setting up rules and regulations and by encouraging the community for - sustainable management and protection of forests and natural resources; prevention of indiscriminate cutting of trees; undertaking steps to promote silvi-culture; prevention of encroachment in the Van Panchayat; construction of boundary walls; conservation of all water resources; availing fodder and other forest produce to rural households in equitable manner; ensuring restoration of barren and unproductive land, eradication of alien and invasive species. Recently in October 2023, the Van Panchayat management has handed over the command of running the Van Panchayat to Mrs. Rajni Devi (a young dynamic lady) as she was elected as the new Sirpanch of Baja Nadila Van Panchayat. As a Sirpanch Mrs. Rajni is very young, hence, the former Sirpanchs Mr. Roshan Lal and Mr. Bhagwati Prasad Tamta guide her and the Van Panchayat board members on Van Panchayat governance. Baja Nadila Van Panchayat is a great example of good governance. The rules and regulations (equitable distribution of resources; in a particular season grass cutting and lopping of trees is allowed for a certain period of time, plantation in the VP is done collectively, a nominal fee is to be submitted for accessing resources - that fee is used in the maintenance of VP) made by the Van Panchayat are strictly followed. Villagers, empowered by the program, have embraced animal husbandry, ensuring a

self-sustaining future for Baja Nadila. With a sustainable funding model, the Van Panchayat now thrives, boasting a fund of Rs. 8,000 for continued protection. The range land development has not only fulfilled the fodder requirements of villages but has also contributed in - ecological restoration of 47.5 hectares of land; motivation for animal husbandry among the community; generated the feeling of ownership among the people for the Van Panchayat; reduction in drudgery and time saving especially for women; reduction in barren, unproductive and uncultivated land; skill development of villagers for forest management. The range land developed by the Van Panchayat of Baja Nadila also contributes towards national and global targets by - restoring 47.5 hectares of degraded land, creating carbon sink to mitigate climate change, soil conservation, biodiversity conservation, and water conservation.

To congratulate the community for their efforts the then District Magistrate Mrs. Ranjana Rajguru of Bageshwar district visited the Van Panchayat and participated in the plantation activity organized on the occasion of Harela Festival (Harela is a local festival of Uttarakhand dedicated to vegetation).



Figure 1: A) Bringing together the community, B) Community mobilization and motivation,



Figure 2: C) Land preparation for nursery development, D) Construction of protection walls through collective gender efforts



Figure 3 : E) Planning of Women Group, F) Saplings ready for plantation



Figure 4 : G) Plantation of saplings, even engaging budding youth of village,
H) Resource utilization

[The Van Panchayat Baja Nadila recently presented their journey of range land development in the 'Community Conference on Commons' that was organized virtually by the Foundation for Ecological Security (FES) with the other partner organizations between 4-6 December, 2023. The community participated in the conference from their forest itself; there were women presenters along with the Sirpanchs (Mr. Roshan Lal, Mr. Bhagwati Prasad and Mrs. Rajni Devi). The efforts done by the community in developing their range land were appreciated by the audience especially by the audience from Nepal and Bhutan.]



Figure 5:
Van Panchayat Baja Nadila members
presenting in the
'Community Conference on Commons'

35 families are getting direct benefits from the CPR in form of 2900 kgs of green fodder for each family per year. The families which had earlier left livestock rearing due to scarcity of fodder are now returning towards livestock rearing and with better high yielding varieties of cattle. Women drudgery has exponentially reduced, as earlier women had to go far away for fodder collection that too in difficult and risky steep terrains. Now when they have availability of fodder in their own village, they save a major proportion of time and utilize that in doing their favorite work like sewing, knitting and are now capable of spending more time with their children. The range land development has also contributed to the health improvement of cattle; earlier due to fodder scarcity the cattle were left for grazing along the roadsides, they used to feed on garbage and sometime due to excessive intake of polythene some cattle died. Now cattle are not left for open grazing along the roadsides as the villagers have plenty amount of quality fodder for feeding the cattle.

Traditional knowledge related to herbal remedies, animal nutrition :

- ★ For treating wounds paste of leaves of Manjith (*Rubia manjith*) and Peoli (*Reinwardtia indica*) are applied on wounds directly.
- ★ For sterility leaves of Jau (*Hordeum vulgare*) are cooked with Ragi (*Elucine coracana*) and Methi (*Trigonella foenum-graceum*) seeds and given to the cattle twice a day for 15 days.
- ★ For neck sore fresh leaves of Bichhu (*Urtica dioica*) are tabbed on the neck sore.
- ★ For dog bite chili powder is applied on the wounds, wound is burnt with the help of burning woody stem of egg plant (*Solanum melongena*).
- ★ For Diarrhoea lemon juice (*Citrus limon*) is given to the cattle.
- ★ For constipation Ajwain (*Trachyspermum ammi*) seeds mixed with wheat flour (*Triticum aestivum*) is given to the cattle.
- ★ For broken horn resin of pine (*Pinus roxburghii*) is applied on the horn.

The villagers are well aware about the fodder rotation i.e. in which season what kind of fodder should be given to cattle. And what kind of fodder is more nutritious for the cattle during pregnancy.

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Regeneration of Common Land and Forest Land by Vriksh Utpadak Sahkari Samiti, Kekariya, Rajasthan

Profile of Vriksh Utpadak Sahkari Samiti, Kekariya



Background of Vriksh Utpadak Sahkari Samiti :

Established in 1996, Vriksh Utpadak Sahkari Samiti, Kekariya, Village (Kekdiya, GP: Sarana, District : Bhilwara, Rajasthan) collectively holds tenure rights over 40 hectares of revenue wasteland. The village, home to approximately 120 families from diverse communities, relies primarily on agriculture and livestock rearing for livelihood. Mr. Ladu Ji Gujar is the President of Samiti. The villagers have cow: 250, buffalo: 700, goat: 1500, sheep: 200 which depend upon this community pasture land . The institution have three type of land – Pastureland, Forest land and Revenue wasteland .



Pasture Land Resources

The village is endowed with mixed ratios of revenue waste land (RWL), agriculture-land and forestland. The barren hills forming the backdrop of the village, bear the testimony of reckless cutting and overgrazing. As the villagers reminiscences of having dense forest at least about 3 decades ago. The market forces, absence of any management over the resource and individual greed are responsible for the deforestation. The forest cover in adjoining forest area has also reduced alarmingly with the increasing demand for firewood. In order to secure these resources, the community has made three type of institution to have legal possession on all type of land resources :

Land Details (in ha.)	
Total area	896
Forest land	149
RWL	559
Pasture land	6
Culturable waste	121
Irrigated land	40
Unirrigated land	21
No of wells	40

1. An institution, namely Kekariya Tree Growers Cooperative Society, has been crafted for the ecological and livelihood security on revenue wasteland .
2. An institution, Village Forest protection management committee, Kekeriya has been formed around Forest land .

3. Chargha Vikas Samiti, Kekerya under Panchyati Raj act 170 A) for secure their right on pastureland.

Management of Pasture land :

Over the past 25 years, Kekariya has undergone a significant transformation, thanks to the collective efforts of its community. The revenue wasteland, once barren and eroded, faced challenges such as soil erosion during monsoons. However, proactive measures were taken by the village's cooperative, including the installation of gabions, check-dams to control water flow, contour trenches, and stone bunds to prevent soil erosion. (refer to the images shown at the bottom).

The Vriksh Utpadak Sakhari Samiti of Kekariya operates through a robust village institution that actively engages in transparent processes. Regular meetings are conducted, fostering open discussions and decision-making that involve the entire community. The institution has played a pivotal role in uniting the community for a common cause — the restoration and sustainable management of their shared resources.

As a result of the community's concerted actions, the landscape of Kekariya has seen substantial improvements. The implementation of tenurial rights empowered the community to make decisions about their commons. The Samiti institutionalized bye-laws, such as *kulhadibandi* (restriction on carrying axes to the commons) and the *ora* system (voluntary guard on a rotational basis), fostering collective decision-making. These efforts have not only facilitated the restoration and revival of degraded land but have also positively impacted agriculture by increasing groundwater levels.

Moreover, the community's commitment to safeguarding their commons has led to improved infrastructure, including a connected pucca road, an upper primary school, and an Aanganwadi.



Black Vulture



White Vulture

Additionally, the conservation initiatives have created a haven for endangered vulture species, including white and black Indian vultures, exemplifying the ecological success achieved by the village. The village institution's transparency and united efforts stand as a testament to the community's dedication to a common cause — the well-being of both their village and Mother Nature.

Visual transformation:

Before



After



Before



After

List of grasses at Kekeriya Pastureland, Mandalgarh

- | | |
|---------------------------------------|-----------------------------------|
| 1. Fuldi, Barkniya | <i>Apluda mutica</i> |
| 2. Safed lanp | <i>Aristida adscensionis</i> |
| 3. Jinjhawo, Bhakhada | <i>Bothriochloa pertusa</i> |
| 4. Safed dhaman | <i>Cenchrus ciliaris</i> |
| 5. Kali dhaman | <i>Cenchrus setigerus</i> |
| 6. Siyal puchhi | <i>Chloris virgata</i> |
| 7. Rohida | <i>Cymbopogon martini</i> |
| 8. Dobadi | <i>Cynodon dactylon</i> |
| 9. Makda ghas | <i>Dactyloctenium aegyptium</i> |
| 10. Karad | <i>Dichanthium annulatum</i> |
| 11. Mor pagiya | <i>Digitaria ciliaris</i> |
| 12. Chikali | <i>Dimeria ornithopoda</i> |
| 13. Sawa | <i>Echinochloa colonum</i> |
| 14. Chidi ghas | <i>Eragrostis pilosa</i> |
| 15. Buhari | <i>Eremopogon foveolatus</i> |
| 16. Kali lanp | <i>Heteropogon contortus</i> |
| 17. Jamuni funde wala chara, ghantiya | <i>Melanocentris jacquimontii</i> |
| 18. Baru | <i>Sorghum halepense</i> |
| 19. Gunda | <i>Themeda quadrivalvis</i> |
| 20. Bel | <i>Aegle marmelos</i> |

Address of the local institution :

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Regeneration of Forest Land by Van Suraksha Evam Prabandhan Samiti, Kadech, Rajasthan

Profile of Van Suraksha Evam Prabandhan Samiti, Kadech

Background Information of Van Suraksha Evam Prabandhan Samiti, Kadech :

Kadach village situates in Sayra block, Udaipur district of Rajasthan. In this village there are 385 hectares of protected area (forest), 50 hectares unprotected area for grazing. There are 370 house holds keeping 300 goats, 60 sheep, 150 cows, 250 buffalo, 350 ox, no. of animals. The village has 500 bigha of agricultural land, 250 bigha (irrigated), 250 bigha (rainfed). Crops grown are maize, wheat, mustard, gram, brinjal, lady finger, tomato and fodder crops

Before the 1960s, there was a dense forest in the Kadach village in which bamboo, big trees, building wood, medicinal plants, wildlife, and more existed. During this time, this forest was protected by the community. Between the 1960s and 1970s, the forest department extensively utilized most of the forest area for making coal from wood. During this period, deforestation occurred, and the community's control over the forest diminished. They did not adhere to their traditional rules and handed over all the rights to the forest department. Remaining forest areas also saw increased deforestation by the community, engaging in open grazing and selling wood.

By 1995, this forest was in a critical condition. In 2000, the FES organization contacted the people of Kadech village and discussed the conservation of the forest with them. The community feared that not only the forest but also their land would be taken away, so they hesitated. Through continuous efforts of the organization and community, a Forest Management Committee was formed under the orders of the forest department, and the authority to govern and manage was placed in the hands of the village committee. With technical and financial support from FES, this committee worked on the conservation and rejuvenation of the forest. Regular meetings led to the formulation of robust rules that are still in effect today.

Management of Pasture land :

The local villagers call the grazing land as Nichli kadech - Kaliyawala plot (forest land), Mudimata plot (forest land), Upli Kadech- thakniwala jungle (forest land).

Fodder species available are Bhangta, Kali laap, Royda, bamboo leaves, khakhra leaves, agna leaves. In an effort to safeguard the forest, the community has appointed two watchmen from within the community. These watchmen are annually paid Rs. 2,10,000 (Rs. 700 * 300 households) by the households in the village. The community actively engages in 'shramdan' annually, contributing their labor for 7-10 days to repair the plot's boundaries. Each household ensures the participation of at least two members. Fines have been established as a deterrent in case of grazing within the protected areas, serving as a measure to enforce compliance. The monitoring and protection of the plots are carried out by the community members themselves, demonstrating a collective commitment to the preservation of the forest. Fodder cultivation is an annual practice in which each household contributes Rs. 700. In return, they gain access to resources such as fodder, Non-Timber Forest Products (NTFP) in some cases, and dry sticks

from the protected forest area. They developed the following regulations :

- ★ Fruits and other edible products are intentionally left within the forest to support the survival of wild animals.
- ★ There are strict restrictions on cutting live or green portions of plants to promote ecological balance and sustainability.
- ★ An annual 'shramdan' is conducted by the community to repair the plot's boundary, with a minimum of two members from each household participating for a period of 7-10 days.
- ★ Fines have been established as consequences for grazing within protected areas, ensuring adherence to conservation guidelines.
- ★ Community members actively engage in monitoring and safeguarding the plots, showcasing their direct involvement in the preservation efforts.
- ★ In the event of a forest fire, all members from households promptly participate in



Karech, July 2001



Karech, April 2003

Current Status:

- ★ Community Forest Rights (CFR) have been successfully claimed for the forest area.
- ★ The community strictly adheres to and accepts the bye-laws, contributing to the effective governance of the forest.
- ★ The plot has garnered attention from national and international NGOs, government bodies, and institutions, who visit to witness the success of the governance system.
- ★ There has been a notable increase in the production of Non-Timber Forest Products (NTFP).
- ★ The wildlife population has witnessed growth, indicating a healthier and more balanced ecosystem.
- ★ The forest is currently in a lush and ecologically restored state, showcasing successful conservation efforts.
- ★ The restoration of water flow in streams has been achieved, ensuring a consistent flow throughout the year.

Address

Van Suraksha evam prabandhan samiti

Village: Kadech

Panchayat: Kadech

Block: Sayra

District: Udaipur

State: Rajasthan

Contact Person : Mr Mitharam Garasiya, President Phone : 9521226042)

Mr Hansaram Gameti, Treasurer

Reclamation of pasture land by Rupan Mata Vriksh Utpadak Sahkari Samiti, Khakhrakhuna Rajasthan.



Profile of Rupan Mata Vriksh Utpadak Sahkari Samiti, Khakhrakhuna

Background Information :

The village Khakhrakhuna situates in Kadech Panchayat in Sayra block, Udaipur district. Total agricultural land is 105 bigha of agricultural land; crops grown: maize, gram , mustard, lentils, lady finger, brinjal , tomato , onion , garlic, chilli ; there is 45 hectare of pastureland. There are 70 families keeping Goat: 150, Cow: 150, Buffalo: 80, Sheep: 60, Ox: 120 (total 560 animals) and depend upon this *Rupan mata dhamka karkar* grassland for grazing. Common grass species found are *Bhangti , kali lap , seran , jujli , ameta ghas*.

Management of Pastureland :



The Rupan Mata Vriksh Utpadak Sahkari Limited Samiti made few rules for managing the pastureland :

- ★ There is practice of lathi system, involves the rotation of a sturdy bamboo or similarly robust wooden stick within each household of the village on a daily basis. This rotation signifies the duty of safeguarding the forest, pastureland and commons on behalf of the entire village. In this arrangement, the wooden stick is passed to every household each day. The pastureland/ forest development committee maintains a register where the current holder of the lathi records their presence by signing for the day after which the lathi is passed to the next household. This tracking system enables the committee to identify the household currently responsible for the lathi. The process fosters a sense of accountability and responsibility among village households for the protection of their shared forest , pastureland and common resources. The lathi symbolizes the commitment of each household to prevent the exploitation of natural resources.
- ★ The community displays remarkable unity, especially evident when addressing encroachment issues, where the entire community readily gathers upon a simple call for action.

- ★ A well-organized system is in place for handling forest fires. Upon hearing the beating of a drum (dhol) around the village, all community members promptly come together to extinguish the fire.
- ★ Regular meetings are conducted to foster communication and coordination among community members.
- ★ To maintain order and adherence to bylaws, fines are imposed based on the severity of the rules broken. Offenders are taken to the temple and brought before the deity to solemnize the consequences of their actions.
- ★ A receipt system is implemented for the cutting of fodder, with each household holding a receipt obtained by paying Rs.50 for village households and Rs.100 for members from nearby villages.
- ★ The accumulated funds from these receipts are utilized for activities such as repairing boundaries and addressing other communal needs.
- ★ Since 2007, the committee-initiated watershed activities aimed at reclaiming and preserving the land. Encroachments were systematically removed, and a comprehensive set of interventions were implemented, including the construction of contour bunds, trenches, check dams, anicuts, as well as activities like planting trees, sowing grass seeds, and building and repairing boundaries. These efforts collectively contribute to the sustainable management and conservation of the watershed area.

Pic: Khakhrakhuna plot 2003



Khakhrakhuna plot: 2022



The comprehensive restoration efforts have successfully countered soil erosion, significantly enhancing the soil's retention capacity. As a positive outcome, the water level in wells has seen a noticeable increase due to the watershed activities. This rise in water levels has allowed the community to cultivate vegetables, leading to improved livelihoods and economic sustainability. Furthermore, the watershed activities have contributed to a consistent annual flow in the river stream, emphasizing the positive impact of these initiatives on water resources within the community. The enhanced availability of fodder resulting from the watershed

activities has led to a significant increase in the number of livestock. This positive development has, in turn, contributed to a rise in income for the community. The additional income generated has played a crucial role in addressing and combating the issue of migration among community members. This signifies a positive economic impact on the community, contributing to its sustainability and reducing the need for migration.

The Traditional knowledge of the community is shown below :

1. To cure diseases related to bones, the medicines used are obtained from the "Gemsi Baam and Pitubel". The usage of the roots of these plants help with the same.
2. On incurring diseases related to scars, the medicines used are "kapoor and Sitafal". The leaves are grinded and the liquid obtained from the plants is used to cure the scars on the body.
3. To cure mouth related diseases like "Khurpaka" and "Muh Paka", ingredients like onion, turmeric, salt and "kanji" are used . The bark is crushed and is therefore used to cure the disease.
4. To cure constipation in animals like cows and goats, "Ber" and "Khakra" is used after crushing the bark.
5. On snake bites and attacks by other venomous animals, Papita and Aakda is applied after grinding the petals of the flower.
6. Upon the presence of worms in the stomach, plants like "Hinuu" and "Bhiva" are used where the barks of the trees are cooked and a paste is made which is thereafter fed to the animals.
7. On the consumption of poisonous plants or roots, "papita" and "aakda" is consumed in the liquid form.
8. To deal with infertility, plants like "Ganna", "Royda" and " Hamla" are used as a mixture to cure the cause.
9. On getting cold, "Adrak" is used to cure the disease alongside Jeera and Kaali mirch.
10. On getting small pox, "Neem" and "Haldi" is used where the leaves of the tree and haldi is mixed together to form a medicine.
11. On the issues of swelling, Mahua is used where the flower is boiled to later on feed the animals.

Address & contact phone number

Rupan Mata Vriksh Utpadak Sahkari Samiti

Village: Khakhrakhuna

Panchayat: Kadech

Block : Sayra

District: Udaipur

State: Rajasthan

Contact person :Mr. Surmaram Garasiya, Secretary Ph: 9166428370

Pastureland Development by Women's Pastureland Management Committee, Nagpur village, Gujarat

Profile of Women's Pastureland Management Committee

Background Information :



MARAG NGO helped to organize pastoralist women to form a Women's Pastureland Management Committee(WPLMC)in Nagpur village in Taluka Rapar, District, Kachchh, Gujarat. There are 10 women pastoralists as members of committee. The WPLMC is managing 10 acres of pastureland *Bansari grazing land* in the village periphery. In this village the pastoral families have been keeping 300 kankrej cow, 50 mahsani and tharadri mixed breed buffalo, 10,000 Kathiawari goats and marvadi sheep.

Management of Rangeland

Our grassland conservation and restoration work in Nagpur Village focuses on 10 acres of associated common pastureland. Pastoralist families in this village have been involved in livestock keeping for many generations, dating back to before independence. Their common identity as Maldhari people literally translates to “animal owner.”The land is a common resource (government owned) with no individual ownership. Fodder species available consist of traditional grasses such as *draman* and *jinjvo* varieties. The women of the WPLMC manage the land. The land management has intentionally been put in the hands a committee of pastoralist women because:

- ★ Women recognise what they have lost and they want to revive their relationship with the pastureland, their traditional role and identity.
- ★ They also realise that if the pasturelands are further depleted, then they and their children will have no future.
- ★ They articulate that if their traditional source of livelihoods is perished, they will not be able to regain their identity and dignity.
- ★ Women aspire to take the lead in restoration of their pastures with their traditional knowledge and abilities to restore biodiversity in the region as well as their traditional sources of livelihoods. If it is against the wish of their male counterparts, they definitely want to 'take a crack at it'.
- ★ If they want to challenge the patriarchal dominance, then they will have to mainstream their role in the prominent economic activities.

The rules and regulations for land management are determined by the WPLMC. WPLMC has decided to use 5 of 10 acres of the village gaucher to develop traditional grasses for small ruminants, 2.5 acres to develop as fodder for big cattle, and 2.5 acres to be developed for drought tolerant species. Finally, WPLMC documents the regulation and use of pastureland and the responsibility of the management.

This land was selected by the WPLMC because of its bio-cultural significance. Historically, this land, and specifically the pond on this land, has been associated with the goddess Sati. And for this reason, the village community has set the rules and regulations regarding the use of this pond. No one is allowed to fetch water from this pond for home or agricultural use. Thus, the water source is reserved for the pastoralist herds. The women of the WPLMC manage the grassland surrounding the pond. They engage in land mapping and demarcation, soil testing, land cleaning and land levelling, selection of the grasses, and seeds, sowing the grass, and general maintenance and management of the land.



Historically, maldhari (pastoral) women held significant status and financial autonomy within their communities, possessing valuable knowledge of grasses, livestock rearing, and pastureland management. However, increasing pressure on common lands and challenges in migration have forced many families to settle, adversely affecting women.

To address these issues, MARAG/PWA first helped village pastoralist women to form the WPLMC. They provided capacity training for these women focused specifically on the regeneration of pastureland. This training included: use of GPS to demarcate the land, measuring soil fertility, and analysing water catchment areas.

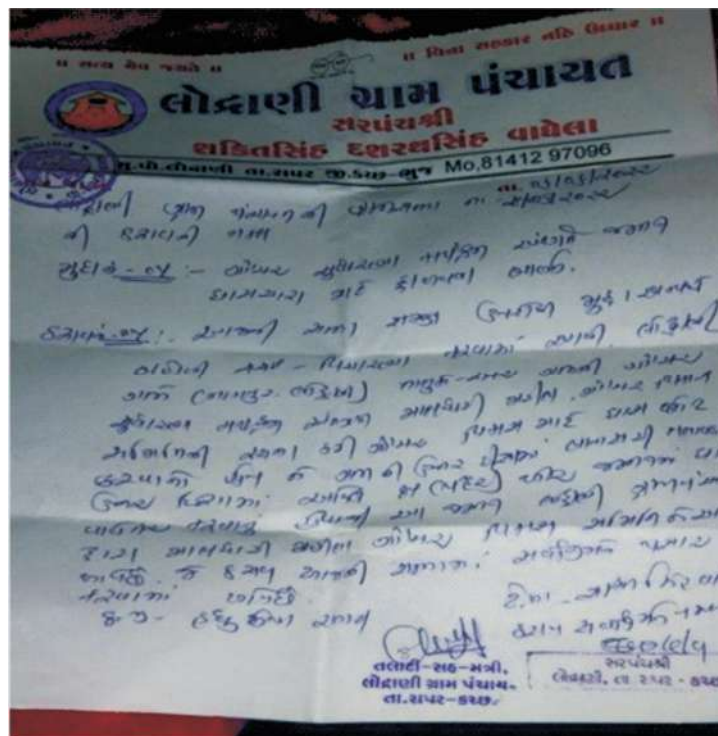
The women then utilized their traditional knowledge of grass varieties to restore the pastureland.

They sought permission from the government for 3 to 5 years, under the committee's name, to use the land for conservation. Through cleaning and seeding initiatives, they are revitalizing their grazing lands for sustainable use.

The WPLMC in Nagpur petitioned the local governing authorities for the right to access and restore this pastureland and has been granted a 5-year period to manage and rehabilitate the land.

Following last year's intervention, there was limited grass growth due to the lack of rainfall. However, this year, the women have resumed their efforts to regenerate the grazing

lands, aiming to ensure sufficient grass for their livestock. Through their ongoing work and dedication, they are hopeful of improving the pastureland conditions and securing better resources for their animals.



Letter from Local Panchayat for allotment of Pasture land for management by the Pastureland Committee

Address :

WPLMC, Rabari vas,
Nagpur Village,
Rapar,
District, Kachchh,
Gujarat.
Contact person :Pabi Rabari
9712342719

Documented by :

Bhavana Rabari
Maldhari Mahila Sangthan (Pahel)
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Identification and Compilation of Rangelands as per Govt. Records in Different districts, Tamil Nadu.

Profile of Mr. Rajiv Gandhi



Mr. C.Rajiv Gandhi have been working for the welfare of pastoralists of Tamilnadu and also involves in the activities of protecting rangelands which is the primary source of livelihoods of pastoralists. With the help of Right to Information Act(RTI), he has collected the survey number details of pasture lands of Tamilnadu in. He has contacted district collectors for the Information of rangelands of 38 districts of Tamilnadu collectors from 15 districts responded. After collecting such survey documents of 15 districts he and along with his friends made awareness to the local people of villages and pastoralists that they have the traditional rights of grazing in the said land. He has also issued and resent the same documents to the district officials / revenue and animal husbandry department and demanded them to protect such rangelands. He worked actively to preserve the rangeland at the village called 'Siramam' in Kalaiyarkoil block , Sivagangai district from the acquisition by private company for lay out of solar project. He made public campaign by making posters the need of rangelands and rights of pastoralists and with the help of public, the land acquisition or encroachment was withdrawn. He works with villagers to pass resolutions in grama shabha and sent them to district collectors for protection of rangelands. In all grama shabha meetings, he helped them to pass resolution to protect the rights of pastoralists and grazing lands and also for continuing traditional grazing in forest zone as per Forest Rights Act 2006. .

Below are the names of the districts for which He has obtained the Rangeland and Grazing land survey number and detailed information: Sivagangai, Madurai, Theni, Virudhunagar, Thirunelveli, Kanniyakumari, Thenkasi, Ramanathapuram, Pudukottai, Thanjavur, Dindigal, Thiruchirapalli, Ariyalur, Perambalur, Tutucourin , Kallakurichi.

He along with his friends promoted Tamil Nadu Pastoral Network / Federation and this has been registered as society last year. He is also editor of "Pastoral Herds" (*Kidai*) monthly Journal in Tamil.

He initiated translation of Forest Rights Act 2006 in Tamil for easy understanding of Pastoral Communities in Tamil Nadu.

Sample of document collected from one division in Sivagangai District

Details of Pastureland in Sivagangai district, Tamilnadu.														
Details of Meekal and Mandhaveli Land														
Name of the District	Taluk	Block	Division	Village	Survey No.	Classification Meekal/Mandhaveli/Tharai	Total extent of Meekal/Mandhaveli land available (in hectares)	Extent of land under encroachment (in hectares)	Type of encroachment (specify whether pvt building/house hold/social bodies/temple/shrines)	Action Taken to evict encroachment	Present stage of eviction	Whether encroached land is under court case? If yes give file details	Balance area of land (in hectare)	
Sl No													Area Vacant	Area under Utilisation of Department
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Sivagangai		Sivagangai	Azhahachavai	515	Meekal	0 13 0							
2	Sivagangai		Sivagangai	Kallanipatti	1278	Meekal	2 12 0							
3	Sivagangai		Sivagangai	Variyargudi	406	Meekal	19 48 0							
4	Sivagangai		Sivagangai	Nalukottai	1481	Meekal	2 5 0	0.43 0	Asapu, Sri. Nachiyappan (living in land more than 20 years)				1.65 0	
	Sivagangai		Sivagangai	Nalukottai	316	Meekal	5 51 0		Trd.Sundan (BNI 1201417)				0.35 0	
5	Sivagangai		Sivagangai	Pudukottai	75	Meekal	0 39 0	0.04 0						
6	Sivagangai		Sivagangai	Edayamalur	2773	Meekal	0 14 50							
	Sivagangai		Sivagangai	Karayamalur	2774	Meekal	0 21 0							
	Sivagangai		Sivagangai	Karayamalur	2777	Meekal	0 31 50							
	Sivagangai		Sivagangai	Edayamalur	28511	Meekal	0 7 56							
7	Sivagangai		Sivagangai	Mudikantam	28513	Meekal	0 8 50							
	Sivagangai		Sivagangai	Mudikantam	4	Meekal	3 24 0							
8	Sivagangai		Sivagangai	Kannayyurugu	1-9	Meekal	6 61 0							
	Sivagangai		Sivagangai	Kannayyurugu	123	Meekal	0 17 0							
	Sivagangai		Sivagangai	Kannayyurugu	1241	Meekal	0 63 0	0.63 0	Vandipathai Ozari				0	
	Sivagangai		Sivagangai	Kannayyurugu	9 1	Meekal	3 14 0	0.00 0	Thiru M.Kumar (BNI No 50148)				3.13 0	
	Sivagangai		Sivagangai	Kannayyurugu	852	Meekal	3 14 0	0.01 0	Thiru M.Kannusamy(BMI No 50148)				3.13 0	
	Sivagangai		Sivagangai	Kannayyurugu	9 3	Meekal	3 14 0	0.01 0	Thiru M.Kannusamy(BMI No 50148)				3.13 0	
	Sivagangai		Sivagangai	Kannayyurugu	892	Meekal	2 98 5	0.80 0	V.Ambalambal(BMI No 98148)				2.17 0	
	Sivagangai		Sivagangai	Kannayyurugu	893	Meekal	2 98 5	0.01 0	A.P.Anci(BMI No 98148)				0.30 0	
	Sivagangai		Sivagangai	Kannayyurugu	893	Meekal	0 30 0							
	Sivagangai		Sivagangai	Kannayyurugu	901	Meekal	0 43 5	0.01 0	M.Rajendran(BMI No 1001148)				0.42 5	
	Sivagangai		Sivagangai	Kannayyurugu	902	Meekal	0 43 5	0.01 0	E.T.ambivel(BMI No 10111 8)				0.42 5	
	Sivagangai		Sivagangai	Kannayyurugu	903	Meekal	0 43 5	0.01 0	Kannusamy(BMI No.102 148)				0.42 5	
	Sivagangai		Sivagangai	Kannayyurugu	904	Meekal	0 43 5	0.01 0	Subramani (BMI No.10314 8)				0.39 0	
	Sivagangai		Sivagangai	Kannayyurugu	902	Meekal	0 46 0							
	Sivagangai		Sivagangai	Kannayyurugu	903	Meekal	0 43 5							
	Sivagangai		Sivagangai	Kannayyurugu	907	Meekal	2 19 5							
	Sivagangai		Sivagangai	Kannayyurugu	905	Meekal	0 98 5							
	Sivagangai		Sivagangai	Kannayyurugu	906	Meekal	0 52 0							
	Sivagangai		Sivagangai	Kannayyurugu	907	Meekal	0 6 5							
9	Sivagangai		Sivagangai	Nalukottai	15513	Mandhaveli	0 15 0							
	Sivagangai		Sivagangai	Nalukottai	15514	Mandhaveli	0 14 0							
	Sivagangai		Sivagangai	Nalukottai	1559	Mandhaveli	1 25 50							

Address :

C. Rajiv Gandhi ,
S/o Chitthiravel,
Kalkulam, Mudikkarai (post). Kalayarkovil Taluk
Sivagangai District,630551. Tamil Nadu
Cell.9677517899

Conservation of Kangayam Cattle Breed in Korangadu Pastureland, Tamil Nadu.

Profile of Smt. Soundram Ramasamy



Background Information :

Smt. Soundram (aged 56 years) studied up to 6th standard and livestock keeper especially breeding Kangayam cattle in Kathasampalayam village in Thiruppur district, Tamil Nadu. She is owning 14 acre of 'Korangadu' (pasture land in dry land) and 40 acre of leased Korangadu land. She is maintaining 80 sheep, 4 bulls of Kangayam breed cattle and 4 cows. Her husband Mr Ramasamy is helping in management of pasture land and maintenance of animals.

Two decades back she needed one breeding bull to overcome problem of repeat breeding in the cows. She contacted Mr Natarajan local cattle breeder and got pure kangayam breed bull. Many local farmers approached her for breeding service for their cows. Due to good demand she increased the number of bulls to 13. She also acquired more Korangadu pasture land for upkeeping their bulls, sheep and cows. Because of hard work they developed best practices in livestock keeping and also management of Korangadu pasture land.

Her bull is able to serve about 20-30 animals in a month. She now collects Rs. 500/- per natural service. The conceiving rate is more than 80% and she tells very few cows are brought for second time for servicing she claims. During COVID times she reduced her activities and also her two son who had been assisting in this activity went to Chennai and settled in jobs. She is now maintaining only 4 breeding bulls of Kangayam breed. The service rate is about 100-150 animals per month or more. So far she claims more than one lakh cows were become pregnant

and also the kangayam cattle breed population also increased considerably over the last 3 decades. She along with Mr. Natarjan local cattle breeder improved the productivity of breed and after the 3rd generation cows are able to yield about 3 liters of milk compared to less than 1 liter of milk the average productivity of local kangayam breed cows.



The bulls are grazed in *Korangadu* pasture land of 54 acres. *Korangadu* typically consists of a mixture of grass, legumes and tree species including annual and perennials. It has predominantly three major species of flora which are spatially in three tiers. The lower tier of *Kolukattaigrass* (*Cenchrus* sp.), an upper tier of tree species including *Acacia leucophloea* that is locally called *Velvel*, and a live fence comprised of a thorny shrub locally as *Mullu Kiluvai* (*Commiphora berryii*) makes up the middle tier.

He has been ploughing the pasture lands every year during summer. She is sowing legumes viz. *Naripayauru* (*Phaseolus trilobus*) *Kollu* (*Dolichos biflorus*) every year before monsoon season begins. She allows 15 days after germination of seeds and then animals are allowed for grazing. She is following rotational grazing system in her 54 acres of pasture land after dividing them with natural or wire fencing.

She is also raising bajra, sorghum in drylands as pure crop and after 3 ½ months after harvesting the earhead, animals are allowed for grazing. She is harvesting 15 veshu (bundle) i.e. 3000 kg straw in an acre of dryland. She is keeping the straw for feeding them during summer season. She earns Rs. 3 lakhs in a year.

She developed a practice asking the livestock keepers to administer neem oil 100 ml and leaf petal of *Aloe vera* before or after servicing the cows. The cows are to be taken for servicing once heat symptom is noticed with in 2 days. The bulls are daily fed with one kilo of cotton seed in the night after grazing in *Korangadu* pasture land.

She is also following few local practices:

i) For cows not conceiving

The animals should be treated for control of intestinal worms. They administer 200ml of neem oil and also 4-5 lemon fruits (fruits are cut and administered orally). In addition they administer *Aloe vera* in the empty stomach for 3 days continuously. This will ensure conceiving in cows after natural service

ii) For maintaining the vigour of breeding bulls

Cotton seeds 2 kilo, rawrice 2 kilo are to be soaked together in water for 5 hours and this has to be fed daily. (One coconut will be grated and mixed with this ration).

iii) For Diarrohea in sheep/cattle

Leaves of *Thuthi* (*Abutilon indicum*) 2 handfull, leaves of *Poovarasu* (*Thespesia populnea*) 2 handful and cumin 50 gm are to be ground well and administered one time.

iv) For HCN poisoning

Due to intake of dried sorghum plants (young seedlings withered due to deficit of water) the animals will develop choke leading to death if not attended immediately. For this she is administering jaggery mixed water or chilli powder mixed with water.

v) For animals not taking water

The root of *varikumatikai* (*Citrullus colocynthis*) (6"length) is ground well and administered orally. This is also effective for blood tinged diarrhoea in cattle and sheep.

Address of innovator:

Smt.Soundaram Ramasamy,
Kathasamy palayam,
K.P.Chathiram,
Nanjathalaiyur Post,
Chinnatharapuram (Via)
Thirupur District, Tamil Nadu
Contact Phone (son) Mr.Veerasingh : 7010867787

Documented by :

P. Vivekanandan , SEVA

Protection of Oran Pastureland in Jaisalmer, Rajasthan.

Profile of Sumer Singh Bhati



Background information :

Mr. Sumer Singh Bhati aged 45 years in village Sawanta, Jaisalmer District in Rajasthan. He is livestock keeper keeping Jaisalmeri camel: 200, Tharparkar Cow: 15, Jaisalmeri sheep: 100 Other animals: 30. Sumer Singh has 16 ha of land as his ancestral property, on which the crops grown annually are millet, sorghum, moong, moth, sesame etc. Sumer Singh's family over the last five generations were involved in livestock keeping, the generations before Sumer Singh were primarily dependent on livestock.

His role in CPR/ Pasture Land Development

Sumer Singh protected Oran (Sacred grove) and Gochar (grazing) lands by fighting like a warrior and started many movements to protect grasslands and Orans. He intervened so that the grassland and barren land can be converted into lush green pastures by planting different types of grasses. Now these barren lands are converted into lush green pastures.

In Sanwata the *Degrai Mata Temple Oran* encompasses an extensive area of approximately 10,000 ha dedicated to common property resources (CPR) and pastureland. The CPR and pastureland under the guardianship of the *Degrai Mata Temple Oran* serves as a vital resource for grazing, enabling the well-being of livestock and, in turn, supporting the livelihoods of herders in the region.

The expansive 10,000-hectare land is recognized as the sacred "Oran" of *Shri Degaraya Mata*. Notably, the distinct demarcation of this significant area is marked by the presence of red cloth, symbolizing *Mataji*, tied around the trunks of the trees. This unique and traditional boundary signifies the sanctity and protection of the land under the temple's care.

Given the fertility of the terrain, the *Oran* remains lush with greenery throughout the year. This abundance of grass not only adds to the natural beauty of the landscape but also ensures a continuous and sustainable resource for grazing, benefiting the local community and their livestock. The presence of *Mataji's* symbol and the perpetual greenery underline the spiritual and ecological significance of this revered land associated with *Shri Degaraya Mata*.

Within the approximately 60-kilometer periphery of this *Oran* land, the livelihoods of about 50,000 cattle and 5,000 families are intricately linked to the resources it provides. The expansive coverage of this area plays a pivotal role in sustaining the well-being of both the local community and their livestock. Legal authority for the land / ownership

Various types of grass are found to be growing in this area, which mainly includes Sevan grass (*Lasiurus Sindicus*), Dhamman grass (*Cenchrus setigerus*), Bur grass, Baker grass, Karad grass (*Dichanthium annulatum*), Bhurt grass (*Cenchrus biflorus*) etc. are in abundance. The abundance of these grasses underscores the biodiversity and natural fertility of the region, providing essential forage for the livestock

Retrieval and Management of Rangeland

The Degarai Mandir's Oran spans 10,000 hectares, some of which are under government jurisdiction. The government reserves the right to allocate portions of the land to companies as needed. To prevent this, Sumer Singh, along with the local community, tirelessly campaigned to restore the remaining land to Oran status. As a result, approximately 600 hectares of land were reinstated as Oran property. Sumer Singh mobilized public protests, engaged with the media, and advocated with local people and the government for the preservation of Oran and grazing lands. The NGT (National Green Tribunal) mandated that no high-power lines should be installed within the Degarai Oran to protect the habitats of vulnerable species such as the Great Indian Bustard and other wildlife. Presently, due to Sumer Singh's efforts, these 10,000 hectares of land are being used for multiple grazing grounds, with the Oran being supported by the establishment of ponds every 5 km to facilitate wildlife and biodiversity conservation efforts.



Sevan grass in the pasture



Agitation for Oran land lead by Sumer Singh



Cluster of Siberian Crane in the Oran



Sumer Singh with Camels in the Oran

The Oran of Degaraya Temple covers an area of 10,000 hectares, some of which was initially government-owned and later allocated to companies. To counter this trend, Sumer Singh collaborated with the local community, devising a strategy to reclaim the remaining land. Through concerted efforts, approximately 600 hectares were successfully registered as *Oran* land.

Sumer Singh played a crucial role in advocating for the conservation of *Oran and Gochar*; rallying local residents and leveraging media outreach. His efforts prompted public awareness campaigns and appeals to the government, resulting in the understanding of the vital importance of this land. The National Green Tribunal (NGT) issued an order prohibiting the installation of high power lines in the Oran, ensuring the protection of bird species like the Great Indian Bustard (GIB) and vultures.

Thanks to Sumer Singh's persistent endeavours, the 10,000-hectare land has undergone positive transformations. Pastures have been established, and strategically located ponds are now being constructed and maintained every 5 kilometers within the Oran. This comprehensive approach reflects Sumer Singh's commitment to environmental conservation, sustainable land use, and the protection of diverse species in the region.

Sumer Singh's dedicated efforts in safeguarding and maintaining the pastures within the Oran land have resulted in a positive impact on the health and wellbeing of the area. This initiative has provided cattle herders with access to nutritious fodder for their livestock. The presence of strategically constructed ponds has further alleviated the need for herders to travel long distances in search of water, promoting convenience and sustainability.

As a direct outcome of these interventions, the number of cattle herders has increased significantly. Currently, approximately 50,000 livestock from around 10 villages graze in the Oran. This growth in the cattle herder community reflects the success of Sumer Singh's endeavors in creating a healthier and more sustainable environment for both the livestock and the local communities.

It has been reported as well as observed by Sumer Singh & locals that feeding Sewan grass (*Lasiurus Indicus*) to cow enhances its milk yield & quality. Moreover, baker grass is reported to be advantageous for camels. Applying the ash obtained by burning dry twigs of "Ker" (*Capparis deciduas*) on camel's body reduces and manages (skin disease) significantly

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Regeneration of Forest Land by Van Gujjar Tribal Youth Association Gaidikhata, Uttarakhand.

Profile of Van Gujjar Tribal Yuva Sangathan

Background Information :



The Van Gujjars are a semi nomadic pastoral peoples in Uttarakhand and Uttar Pradesh, who engage in rotational grazing and seasonal migration with their indigenous 'Gojri' buffaloes. These buffalo herders live among the dry deciduous forests of the Shivalik hills in the winter season. For summer grazing, they travel to high mountain pastures located at 8,000-12,000 feet above sea level. This transhumance practiced by the Van Gujjars is important for the survival of their buffaloes, their livelihood and their fodder management. In April, with the oldest female buffalo leading the herd, they start walking towards the colder Himalayan region. The scenario repeats itself when they descend in late September. By the time the Van Gujjars reach the mountains, the Char Dham Yatra also begins. The Van Gujjars sell their milk-made products to tourists to earn a livelihood.

The Van Gujjar Tribal Yuva Sanghatan is a registered trust, functioning as a collective amongst the community that is keen to facilitate interests of the Community under the Forest Rights Act, 2006 as well as in fields of education, land management, breed conservation, sustainable livelihood and conservation activities. The Sanghatan as a collective has primarily contributed to several activities towards conserving and preserving the Kuna Chaur pasture since 2017 and seeks to apply as a collective for the purpose of this award.

Gaidikhata Gujjar Basti comprise of with 200 families of Gujjar community having 1000 buffaloes. They depend upon forest grazing for their animals. There are 1000 no. of Gojri buffalo. The land area is of 37.83 sq km of Jhilmil jheel lake, which is a protected forest area. The families are traditionally depend upon live stock rearing for their livelihood.

The diversity of flora include Patera, dab, multi leaved grass, kamila, gegdi, papdi, gutail, kam,

aldu (*Ailanthus excelsa*) kogad, khair (*Acacia catechu*), bheda, billan, badar, neem, is native tree etc. There is a grassland over an area of 50 sq km locally known as Jhilmil Lake and Nalki Forest. It is also home place for reindeer. The forest belong to North Forest Division and Gujjar community is seeking rights over the lands through Forest Rights Act 2006 which is under consideration at division level

Management of Rangeland



The Sanghatan has demarcated the grassland into three areas namely Meeya Bazaar, Naharkepeeche compartment and Majhada (Islands on the floodplains of Ganges). All these three areas are utilized as per seasonal variation to ensure there is timely regeneration of grass and other vegetation. In Summer, majority of the buffaloes either migrate to Khadar, Bijnore district to eschew the grass in the Ganges floodplain therein or to the Bugyals amidst the Himalayas in Uttarkashi, RudraPrayag and TehriGarhwal district. In the remaining two seasons a pattern of grazing is practised across the Chaud.

In winter, the community utilises the compartments beyond the canal for lopping and grazing activities. To ensure there is sustainable management of the grassland, the Sanghatan has created a consultative mechanism to ensure the grassland, islands within the Ganges and wooded areas beyond the canal to utilize the pastures effectively. In rainy season, the community primarily relies upon utilization of the grassland in Meeya Bazaar as it refurbishes due to the rainfall. Thus, in this season, the grazing is managed by dividing the said area within the interval of 15 days. In July and August, the community also conducts an annual festival of plantation, SailaParv, wherein Gutel seeds are dispersed and planted for the regeneration of the pasture. Gutel (scientific name – *TrewiaNudiflora*) as a tree is preferred since it is not only useful for lopping but also of high medicinal use for the buffaloes to feed upon to ensure high nutritional value of the milk produced. But there is a threat of wildlife often consuming these plants when at tender age.

A total of 300 seeds of Gutel were dispersed and planted on 20th June 2017, out of which 189 Gutel plants have germinated today. In 2018, a total of 275 seeds were dispersed and planted on 8 July, out of which 43 Gutel plants germinated and survive today. In 2019, a total of 318 of Gutel and Lusada seeds were dispersed and planted on 14 July, out of which 128 plants germinated and survive today. On 28th July 2020, a total of 188 saplings of Gutel were planted

out of which 131 plants survive till date. These efforts of reforestation since 2017 coupled with greater dispersal by the livestock have enabled the growth of dense canopy of Gutel trees, approximately around 1000. Apart from Gutel, the Sanghatan has engaged in plantation of Lusada, Malotus, Kargaal and Kharbat during the annual SailaParv festival.

The details of planting of natural trees by Van Gujjar Tribal Youth Organization in the year 2023-24 are as follows: 50 trees were planted in the Village Forest Rights Committee of Kotdwar in Pauri Garhwal district. 150 trees were planted in Kunau Chod of Gohri Range. Planted 150 trees in Nathanowali of Bijnor district. 650 trees were planted in Gola Source, Gandikhata, Kabrowali in Haridwar district. 130 trees were planted in Kusrela in Tehri Garhwal district. All these trees were planted between July 20 and 30, which was celebrated as the tree planting festival of the community. The community based name of the festival is celebrated is Saila Parv. This year the total number of trees was around 1130. The species of trees are Bahera, Sadhan, Gutel, Sain, Bakhali, Kada, Kusum, Kumma, the above trees are found in Shivalik region. These are here. Which also protects the soil from erosion and plays an important role in the conservation of local biodiversity and is also the favorite food of Gojri buffalo. Natural trees are planted every year by Van Gujjar Tribal Youth Organization.



The Sanghatan keenly engages in safeguarding water bodies and wetlands within the grasslands. The Sanghatan has engaged in fervently opposing the growth of plantations within the landscape in order to protect its pristine habitat. It has frequently opposed the measures undertaken by the Forest department under CAMPA to prevent unnecessary plantation of alien and non-useful species in the grassland habitat. The Sanghatan values diversity within the grassland vis a vis species regeneration by promoting forestry activities that are beneficial for building sustained supply of fodder. This exercise builds resilience of the community to pursue pastoralism in a sustainable manner as well as maintain a viable livelihood.

The Sanghatan is keen to promote the natural growth of forests in the region to ensure the indigenous Gojri breed need not have to rely upon purchased fodder from the market. With the use of such natural fodder, the Van Gujjars are able to maintain the nutritious value of their milk. The Sanghatan believes by adopting such sustainable processes for ensuring high quality of milk is enhancing the identity of their produce which has benefited several members to procure a reasonable and equitable market price for their commodity. The Sanghatan is keen to build on the goodwill of producing unadulterated and nutritious milk, unlike commercial dairy, which has additional health benefits for populace consuming them.

However, there has been an infestation of *Lantana* within the landscape in the recent decades due to lack of adequate actions to prevent the growth of the invasive species by the Forest department. The occurrence of lantana continues to threaten the pastoral livelihood of the Van Gujjars as it reduces the carrying capacity of the grassland and is extremely poisonous for the buffaloes. Thereafter, the Van Gujjars frequently clear out the lantana in spaces where they undertake lopping to ensure there is no intermixing of the leaves which the buffaloes feed upon. Furthermore, since the Van Gujjars recognise Lantana to be extremely prone to forest fire, the Sanghatan has time and again with volunteers tried uprooting and cutting the invasive plant to prevent its growth. Till date, there have been drives in 2017, 2019 and 2020, wherein a total of 22 bighas were covered by the volunteers in uprooting the invasive species.

Forest department in association with Forest Gujjar Tribal Youth Organization is taking of regeneration of grass land during October to March.

During this period animals were stall fed with grasses and tree leaves. Besides this, at different locations of grassland, natural water sources are developed by the Gujjar community, which helps in maintaining the micro environment and provides the drinking water for the livestock and water birds. These birds live in and around these water bodies. Other wild animals like Reindeer live around these water sources and they too migrate along with Gojri buffaloes towards Khadar Bhairaj area.

They have rich traditional knowledge using medicinal plants for treatment of human and animal diseases :

1. The bark of ren tree helps in treating and fixing the broken leg of buffaloes.
2. By feeding the *Kmila* (*Mallotus philippensis*) tree seeds to buffalo calves, helps in killing the worms in the stomach.
3. Loose motion in to buffalo calves is controlled by feeding the Cannabis leaves.
4. The bark of *Kmila* (*Mallotus philippensis*) tree helps in treating allergy related ailments
5. Darenkri (*Murraya koenigii*) is used in making kadi veg.
6. Goggling by using the boiled water with bark of *Kikkar* (*Acacia nilotica*), helps in curing the tooth ache.
7. Drinking boiled water of *barna* (*Crateva religiosa*) barks, cures stomach infection.
8. *Kala bansa* (*Barleria Lupulina*) is used for treating the fever in animals.

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