

PROJECT DHENUDHARA (धेनुधरा)

Arid Land Ecological Restoration, Vedic Agro-Carbon Sequestration & Emergency Cattle Preservation Initiative

Target Ecosystem: Thar Desert Corridor (IGNP Stage-II to International Border), Jaisalmer, Western Rajasthan

INSTITUTIONAL SPONSORS & FOUNDATIONAL LEADERSHIP

- Proposing Entities: GoVedic Agro Private Limited (CIN: U01139RJ2024PTC096470) & Indian Society for Cow Protection (ISSCOP, Registration No: 16/Jaisal/2001, Dated: 28.05.2001)
- Executive Leadership: Bhaktavatsal Das (Bhagwan Prasad Sutradhar) - Founder & Secretary, ISSCOP; Director, GoVedic Agro Pvt Ltd (30+ Years Thar Agronomy Researcher)
- Director: Hiteshbhai Harsingbhai Chaudhari (Director, GoVedic Agro Pvt Ltd)
- Registered Headquarters: C/O Kishan Lal, Vill-Kathodi Jaisalmer, Rajasthan - 345001 | Portal: <https://govedic.org>

CRITICAL CLIMATIC EMERGENCY & IMMINENT 60-DAY SURVIVAL WINDOW

Western Rajasthan is facing its lowest rainfall in 17 years. Pasture grasses have completely dried up, and boundary farmers along the Indo-Pak border are abandoning tens of thousands of indigenous Tharparkar cows, oxen, and bulls into isolated desert zones to avoid seeing them starve in villages. With desert winter temperatures dropping in November, an acute 60–90 day survival window exists. Immediate mobilization of winter and multi-cut fodder (Oats, Barley, and 5-cut Sorghum SSG 59-7) across 10,000 Murbas of private leased land is required to prevent catastrophic livestock mortality.

1. Executive Summary & Project Context

Western Rajasthan—specifically the strategic border district of Jaisalmer—presents an unprecedented convergence of an ecological crisis and a transformational environmental opportunity. Project DhenuDhara has been designed to channel international Voluntary Carbon Market (VCM) investments, corporate CSR grants, and domestic Green Credits into large-scale arid land revegetation, soil carbon sequestration, and emergency bovine preservation.

1.1 The Three Strategic Land Patches

- **Patch 1: 10,000 Murbas Private Leasehold Land (~62,500 Ha / 154,000 Acres):** Located at the tail end of IGNP canal branches. Allotted by the Government to Himachal Pradesh farmers displaced by the Pong Dam / Pong Barrage on Beas River (which supplies the Indira Gandhi Canal). Kept vacant due to harsh climate and lack of roads/water. Farmers have formally agreed to a 20-Year Development Lease to GoVedic Agro Pvt Ltd for Vedic Agriculture development.
- **Patch 2: 400 sq km Barren Crown Land (Near 'O' RD Mohangarh):** First sector of a 2,500 sq km barren desert tract located near 'O' RD Mohangarh. Targeted for Government allotment and development permission for pasture revival, central nurseries, and solar lift irrigation.

- **Patch 3: 2,100 sq km Remote Crown Land (7-District Strategic Fodder Bank):** Remaining 2,100 sq km remote desert corridor between canal tail branches and the Indo-Pak border. Requisitioned from the Government to establish a Permanent Regional Strategic Fodder Bank (महा-चारा बैंक) to fulfill fodder needs for all cattle across 7 Western Rajasthan districts (Jaisalmer, Barmer, Bikaner, Jodhpur, Jalore, Pali, Sirohi) as a permanent drought solution.

1.2 Convergence of Natural Assets & Implementation Structure

- **Saraswati Paleochannel & Canal Water:** Post-2001 seismic reactivations make sweet subterranean aquifers accessible at 180-300 ft along the Kathodi-Mohangarh-Lathi belt, alongside IGNP tail siphon flows.
- **Indigenous Tharparkar Bovines:** Renowned worldwide for heat tolerance, disease resistance, and exceptionally mineral-rich dung and urine, essential for reviving sandy soils.
- **Phase 1 (Immediate 90-Day Emergency Mission):** Immediate cultivation of seasonal and multi-cut fodder (Oats starting Nov 2026, Barley starting Feb 2027, and 5-cut Sorghum SSG 59-7 starting March 2027) on 10,000 Murbas to save over 1,00,000 starving cattle.
- **Phase 2 (5-Year Vedic Agro-Carbon & Fodder Bank):** Converting the 10,000 Murbas into modular Units of Vedic Agriculture (6.25 Ha / 1 Murba each at ₹2.10 Cr per unit), generating Verra VM0042 & ARR carbon credits and building the 7-district fodder bank.

2. Carbon Credit Methodology & Carbon Finance Architecture

Global voluntary carbon markets and Article 6 mechanisms are aggressively prioritizing High-Durability Nature-Based Carbon Removals (CDR) over conventional avoidance credits. Projects that arrest desertification, rebuild depleted soils, and restore biodiversity command premium pricing (\$18 to \$35+ per tonne CO2e).

2.1 International Certification Methodologies

Standard / Registry	Methodology Code	Core Activity	Carbon Sink Mechanism
Verra VCS	VM0042	Improved Agricultural Land Management (ALM)	Soil Organic Carbon (SOC) enhancement via bovine manure application, zero chemical inputs, and ox-powered tillage.
Verra VCS	AR-ACM0003 / VM0007	Afforestation, Reforestation & Revegetation (ARR)	Woody biomass carbon sequestration via multi-tier indigenous shelterbelts (Khejri, Rohida, Ber, Moringa).
Gold Standard	Regenerative Agriculture	Soil Health & Water Optimization	Sub-surface micro-irrigation, zero-till biological cover-cropping, and livestock waste valorization.
India MoEFCC	Green Credit Programme (GCP)	Wasteland Afforestation & Restoration	Statutory Green Credits issued per surviving tree and restored hectare on degraded government land.

2.2 Soil Organic Carbon (SOC) Dynamics & Chemical Baseline

Uncultivated desert sand in the Jaisalmer Thar corridor has an extremely impoverished baseline Soil Organic Carbon (SOC) level of less than 0.08% to 0.12%. Under GoVedic's closed-loop Vedic agricultural system:

- **Biological Inoculation:** Application of 15 to 20 metric tonnes per hectare annually of aged, fully fermented Thar Black Gold cow manure, vermicompost, and liquid bacterial cultures (Jeevamrit, Ghanjeevamrit).
- **SOC Sequestration Math:** Raising topsoil (0-30 cm) SOC from 0.10% to a conservative 0.40% over 3 years sequester approximately 13.5 tonnes of CO₂e per hectare into the soil profile.
- **Arid Agroforestry Sink:** Planting 400 indigenous drought-hardy trees per hectare (Khejri - *Prosopis cineraria*, Rohida, Desert Apple, Moringa) sequesters 2.5 to 4.0 tonnes of CO₂e per hectare annually in above- and below-ground woody biomass.
- **Methane Avoidance:** Digestion of cattle dung in hermetic anaerobic digesters produces clean bio-methane for irrigation pumps, preventing open-air uncontrolled methane emissions.

2.3 Carbon Volume & Financial Projections (10,000 Murbas / 62,500 Hectares)

- **Total Deployment Footprint:** 10,000 Murbas = 62,500 Hectares (~1,54,400 Acres).
- **Conservative Net Sequestration:** 4.0 tonnes CO₂e / Hectare / Year (blended average across SOC buildup and agroforestry biomass).
- **Annual Carbon Credits Issued:** 2,50,000 Metric Tonnes CO₂e per annum.
- **10-Year Project Crediting Volume:** 25,00,000 (2.5 Million) Verified Carbon Units (VCUs).
- **Projected Annual Carbon Revenue (@ \$20/tCO₂e):** \$5,000,000 USD (~₹41.50 Crore) per annum, yielding over ₹415 Crore across a 10-year crediting window.

3. The 90-Day Emergency Mission: Fodder Corridor & Cattle Rescue

Because international carbon certification requires 12 to 24 months of third-party audit and satellite verification, GoVedic Agro will decouple the emergency relief phase from carbon verification. The immediate goal is deploying rapid green forage to save the abandoned cattle before winter freeze.

3.1 Crop Strategy & Complementary Fodder Chain (Oats, Barley & Sorghum)

- **Crop 1: Winter Oats (*Avena sativa*, Kent / JHO-822):** Sowing from October 25 to November 25. Ready for first cutting within 50 to 60 days (December/January). High protein forage yielding 400-500 quintals per Murba across multiple cuttings, providing immediate nutrition to restore rumen function in starving cattle.
- **Crop 2: Dual-Purpose Barley (*Hordeum vulgare*, RD-2035):** Sowing from January 15 to February 25. Extremely drought-hardy and salt-tolerant; requires only 2 to 3 light irrigations. Generates abundant dry straw (Kutti) and nutritious grain supplements for winter energy.
- **Crop 3: Multi-Cut Forage Sorghum / Jowar (*Sorghum bicolor*, SSG 59-7 / Meethi Chari, 5 Multi-Cut):** Sowing from March through June. Outstanding heat and drought resilience with sweet, juicy stalks. Produces 5 successive cuttings throughout the extreme desert summer, providing continuous green forage and dry reserves for the 7-district fodder bank.

3.2 Dual-Source Water Mobilization

- **Canal Network Integration:** Utilizing permitted gravity and solar siphon lift pumps directly from the 1452 RD tail branches of IGNP Stage-II into excavated ground reservoirs (Diggis).

- **Saraswati Paleochannel Wells:** Drilling 180-300 ft tubewells into the sweet Saraswati paleochannel aquifer equipped with 10-15 HP solar submersible pump sets, ensuring uninterrupted water even during canal closure periods.

4. Long-Term Conversion: The '1 Unit of Vedic Agriculture' Model

Following emergency fodder stabilization, each 6.25-hectare parcel (1 Murba) is permanently engineered into a self-sustaining Unit of Vedic Agriculture, formulated through 30+ years of ground experimentation by Bhagwan Prasad Sutradhar (Bhaktavatsal Das).

4.1 Unit Specifications & Infrastructure Node

- **Land Area:** 1 Murba = 6.25 Hectares (~25.75 Acres / 100 Bighas).
- **Capital Outlay:** ₹2.10 Crore per unit (Gross 5-year Capex: ₹2.34 Cr; Net Capex after staged revenues: ~₹1.80 Cr).
- **Layout Distribution:** 2.5 Hectares Multi-Tier Arid Agroforestry (Khejri, Rohida, Ber, Moringa) + 2.5 Hectares Crop & Forage Grid + 1.25 Hectares Central Infrastructure Complex.

4.2 The 28 Standardized Development Stages (Summary)

- Stage 01-04: Boundary survey, satellite baseline, laser land leveling, solar bio-fencing and thorny perimeter hedges.
- Stage 05-08: Master nursery (25,000 indigenous saplings), preliminary compost broadcasting, micro-drip network, and shelterbelts.
- Stage 09-13: Deep lined reservoir (15-Lakh-Litre Diggi), pipeline connectivity, ox-cart lanes, Jeevamrit microbial tanks, windbreaks.
- Stage 14: Central Operational Complex: (1) Cow Protection Goshala, (2) Nandi Shala Bull Shed, (3) Cold-Press Oil Ghani, (4) Farmhouse & GRO Dormitory, (5) Ox-Implement Workshop, (6) Modern Biogas Digester, (7) Vermicompost Granulation Plant, (8) Indigenous Seed Bank, (9) Solar Drying Yard, (10) Medicinal Plant Extraction Unit, (11) Soil Testing Lab, (12) Solar Micro-Grid, (13) Silage Pits.
- Stage 15-19: Working bull deployment for zero-fuel farming, legume cover cropping, IoT soil carbon sensors, organic certification audit.
- Stage 20-23: Commercial harvests: Fodder stabilization (₹80,000), organic cereals (₹2,40,000), medicinal crops (₹3,20,000), fruits/berries (₹8,00,000).
- Stage 24-28: Training of 5 Gen Z GROs, Verra carbon verification audit, commercial Thar Black Gold manure sales, traditional Bilona A2 Ghee extraction, and full operational transition.

4.3 Audited 5-Year Capital Expenditure & Revenue Flow (Per 1 Murba Unit)

Project Year	Capital Expenditure	Key Operational Activities	Revenues Generated	Net Annual Outlay
Year 1	₹71,92,000	Leveling, reservoir, fencing, solar pumps, nursery, emergency fodder	₹0	₹71,92,000
Year 2	₹1,17,61,240	Infrastructure complex, cow sheds,	₹0	₹1,17,61,240

		biogas, vermicompost, tree belts		
Year 3	₹17,71,320	Micro-irrigation tuning, organic soil buildup, cover crops, ox operations	₹0	₹17,71,320
Year 4	₹6,92,520	Routine maintenance, first commercial harvests, carbon baseline audit	₹14,40,000	-₹7,47,480 (Surplus)
Year 5	₹20,26,520	Agroforestry maturity, Thar Black Gold sales, carbon credit issuance	₹69,20,000	-₹48,93,480 (Surplus)
Total	₹2,34,43,600	Turnkey 5-Year Vedic Agro-Carbon Unit Development	₹83,60,000	₹1,50,83,600 (Net Capex)

ASSET VALUE BACKING & CAPITAL SECURITY

By Year 5, each unit has developed 1,800 fully established indigenous desert trees (Khejri, Rohida, Ber, Moringa) with an audited biological capital valuation of ₹1,000 per tree = ₹1,80,00,000 (₹1.80 Crore), fully securing the initial invested capital.

5. Bovine Integration: Lifelong Non-Slaughter Stewardship

GoVedic Agro is NOT a commercial dairy farm. Under our foundational charter, cattle are sacred ecological partners in agriculture. Rescued border cattle will be permanently integrated across three programs:

- Adopt A Cow Program (AACP):** Calves drink first to complete satiety. Residual surplus milk from healthy cows is hand-milked and processed using the traditional wooden-churn Bilona method into medicinal A2 Ghee (market price: ₹3,000 to ₹4,500/kg).
- Adopt An Oxen Program (AAXP):** Strong adult male bullocks are trained for zero-emission draft power. A pair of working oxen replaces one 35 HP diesel tractor, saving ~2,500 litres of diesel per unit per year and avoiding ~6.7 tonnes of CO2e emissions annually. Oxen operate rotary oil ghanis, water pumps, and soil aeration implements.
- Adopt A Bull Program (AABP):** Older, retired, and non-milking cows and bulls receive permanent sanctum at GoVedic's Kathodi pastoral reserves. Their dung and urine supply the microbial feedstock for Thar Black Gold bio-manure.

6. The Blended Finance Capital Stack

To solve the timing mismatch between immediate cattle starvation and future carbon credit issuance, Project DhenuDhara deploys a structured three-tranche capital stack:

Funding Tranche	Target Amount	Timeline	Primary Capital Source	Operational Allocation
Tranche 1: Relief Grant	₹15.00 Crore (\$1.8M)	Months 0 - 3	Corporate CSR (Schedule VII), Philanthropic Grants, Gau Seva Funds	Winter Oat/Barley seed, solar lift pumps, emergency feeding troughs, water

				browsers.
Tranche 2: Carbon ERPA	₹50.00 Crore (\$6.0M)	Months 3 - 12	Carbon Developers (EKI Energy, South Pole, Respira, Cultivo)	Verra PDD, satellite MRV, initial 250 Units permanent infrastructure.
Tranche 3: Scale Equity	₹150.00 Crore (\$18M)	Years 2 - 5	Climate Impact Funds, Green Credit Programme (MoEFCC), NABARD	Full 10,000 Murbas rollout, commercial bio-manure plants, cold-storage, A2 Bilona Ghee.

6.1 Statutory CSR Qualification (India Companies Act 2013)

Under Indian law, large corporate entities must allocate 2% of profits to CSR. Project DhenuDhara qualifies under three mandatory heads of Schedule VII:

- **Schedule VII Item (iv):** Ensuring environmental sustainability, ecological balance, animal welfare, agroforestry, soil and water conservation.
- **Schedule VII Item (ii):** Promoting employment-enhancing vocational skills among rural youth (Gen Z Grass Root Officers).
- **Schedule VII Item (x):** Holistic socio-economic empowerment of border desert communities.

7. Target Institutional Partners & Outreach Strategy

- **EKI Energy Services Ltd (EnKing International):** India's premier listed carbon developer (HQ Indore). Proposed Joint Development Agreement (JDA) where EKI finances validation/PDD costs against guaranteed offtake of 2.5M VCU.
- **South Pole / Respira International / Boomitra:** Global leaders in nature-based carbon removals and soil carbon aggregation via satellite remote sensing.
- **Adani Green Energy / Adani Foundation:** Massive solar/wind operations in Jaisalmer/Barmer; mandatory regional CSR obligation in local biodiversity and community water security.
- **Reliance Foundation / Tata Trusts / Vedanta (Cairn Oil & Gas):** Premier national foundations with dedicated mandates for rural livelihood transformation, cattle welfare, and drought relief.
- **District Administration & IGNP Board (Jaisalmer):** Requisitioning emergency land occupation, fodder cultivation permits on unallotted crown land, and canal water siphon rights.

8. Immediate 30-Day Execution Roadmap

Timeline	Strategic Milestone	Key Responsible Stakeholders	Deliverables
Week 1 (Days 1-7)	Entity Authorization & Proposal Release	GoVedic Board & ISSCOP Executive	Signed Joint Resolution, 2-page Investor Deck, Financial Model.
Week 2 (Days 8-	Carbon Pre-Financer & CSR	GoVedic Corporate Liaison &	Dispatch of formal pitch decks to

15)	Outreach	Investor Relations Team	EKI Energy, South Pole, Adani, Reliance.
Week 3 (Days 16-22)	Government Land & Water Protocol	Bhaktavatsal Das & Hiteshbhai Chaudhari	Memorandum to Jaisalmer Collector & IGNP Commissioner for Patch 2 & 3 permissions and canal siphon water for 10,000 Murbas Pong Dam leased land.
Week 4 (Days 23-30)	Ground Fodder Deployment (First 1,000 Murbas)	GoVedic Ground Operations Team	Bulk Oat seed procurement, solar pump installations, emergency cattle corrals.

9. Institutional Credentials & Communication Directory

PRIMARY INSTITUTIONAL DIRECTORY

GOVEDIC AGRO PRIVATE LIMITED

- Corporate Identification Number (CIN): U01139RJ2024PTC096470 | RoC Jaipur (Rajasthan)
- Registered Office: C/O Kishan Lal, Vill-Kathodi Jaisalmer, Rajasthan - 345001, India
- Official Web Portal: <https://govedic.org> | Email: Govedicagriculture@gmail.com
- Mobile Inquiries: +91 70698 04772 / +91 63516 38571

INDIAN SOCIETY FOR COW PROTECTION (ISSCOP)

- Registration Number: 16/Jaisal/2001 (Dated: 28.05.2001, Jaisalmer, Rajasthan)
- Lead Representative: Bhaktavatsal Das (Bhagwan Prasad Sutradhar), Founder & Secretary
- Agronomy Research Base: 30+ Years Continuous Field Research in Arid Ecology & Cow Protection (IGNP Jaisalmer Sector)

“Go-rakshya-krishi-vanijyam vaishya-karma svabhava-jam.” — Bhagavad Gita 18.44
Protecting the sacred bovine, regenerating the earth, and establishing righteous economic equilibrium through Vedic Agriculture.