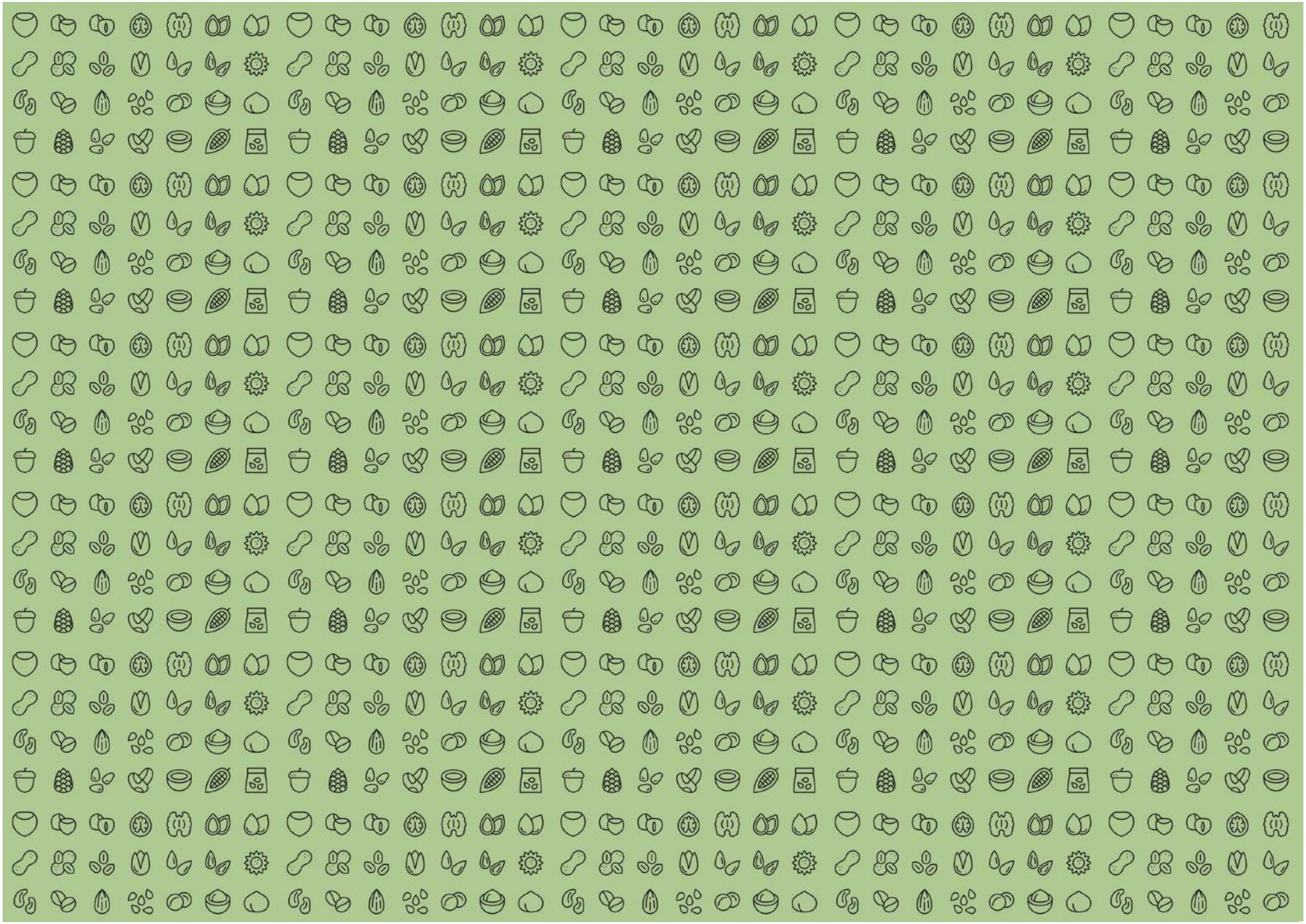
SEED-5C, 2025

Beeja Parampara

Narratives of Preservation and Pride



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ABOUT THIS COMPENDIUM

India's agricultural heritage has been shaped for centuries by the quiet, steadfast work of its farming communities—stretching from the deserts of Rajasthan and the Western Ghats of Kerala to the Himalayan highlands, coastal Karnataka, and the tribal heartlands of Odisha and Assam. This compendium brings together 37 compelling case studies that document the lived experiences of seed custodians, women-led groups, community seed banks, tribal conservators, and multi-crop innovators who continue to safeguard the nation's irreplaceable genetic wealth.

These stories highlight how farmers—often with limited resources but extraordinary commitment—are conserving and reviving more than 5,000 indigenous varieties of rice, millets, pulses, vegetables, tubers, spices, fruits, and multi-crop landraces. Their efforts protect climate-resilient varieties, strengthen household nutrition, reinforce community seed sovereignty, and restore ecological balance through agroecological and traditional farming knowledge passed down across generations.

Organized across four thematic clusters—Rice Guardians, Millet Custodians, Vegetable and Multi-Crop Conservators, and Mountain Seed Systems —this compendium showcases the remarkable diversity of India's grassroots conservation landscape. It brings forward voices that rarely enter mainstream agricultural discourse: tribal seed keepers defending ancestral crops, women leading community seed institutions, mountain farmers preserving high-altitude heirloom grains, and dryland cultivators fighting erosion of drought-resilient varieties.

Seeds of Resilience: Stories of India's Custodian Farmers & Community Seed Keepers stands as both documentation and tribute. It honours the custodians who continue to protect India's living seed heritage, ensure local food security, revive cultural identity, and build climate-resilient farming futures. Above all, it demonstrates the transformative power of community-led conservation in safeguarding biodiversity for generations to come.

ACKNOWLEDGMENTS

This compendium would not have been possible without the invaluable contributions of the **farmers, women's groups, tribal communities, and seed custodians** whose stories form its heart. We express our deepest gratitude to the individual and collective farmers who generously shared their experiences, wisdom, photographs, and lifelong commitment to conserving India's indigenous seed heritage. Their dedication to safeguarding traditional varieties—often in the face of climatic, economic, and social challenges—continues to inspire efforts toward resilient, biodiverse, and sustainable food systems.

We extend sincere appreciation to the field facilitators, community institutions, non-governmental organisations, and technical partners who supported the documentation of these case studies. Their ongoing engagement, on-ground guidance, and facilitation enabled the capture of authentic and diverse narratives across regions.

We gratefully acknowledge the contributions of agricultural universities, Krishi Vigyan Kendras, and research institutions, whose scientific insights and validation strengthened this compilation. Our thanks also go to the Agriculture University Jodhpur, M.S. Swaminathan Research Foundation, Himalayan Research Group, HOOGA Seed Keepers Collective, Kerala State Biodiversity Board, Departments of Agriculture in Madhya Pradesh and Assam, and Hariyaleeseeds for their valuable collaboration and support.

We extend heartfelt thanks to the **Department colleagues** for their continuous support and encouragement throughout the process—reviewing submissions, facilitating linkages, and enabling smooth coordination.

A special acknowledgement to the **SuATI Karnataka team** for initiating this effort, collating inputs, engaging with farming communities, documenting field learnings, and compiling the stories with care and respect. Their dedication has ensured that these voices reach a wider audience

Above all, we honour the resilience, knowledge, and spirit of India's farming communities—whose stewardship of seeds, soil, and traditional wisdom continues to nurture the nation's ecological and cultural heritage. This compendium is dedicated to them.

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SECTION 1

Rice Guardians & Indigenous Paddy Conservators

Custodians protecting India's ancestral rice heritage

Name of Farmer: **B. K. Devarao**
Place: Mittabagilu Village, Belthangady Taluk, Dakshina Kannada District
Contact Details: 9945976620 | bkparameshwarrao@gmail.com
Seeds Conserved: **Paddy**

BACKGROUND

B.K. Devarao is regarded as one of Dakshina Kannada's most respected custodians of traditional rice diversity. For over six decades, he has worked tirelessly to protect and cultivate a remarkable range of indigenous crops. His living collection includes more than 240 paddy varieties sourced from across India—117 from Karnataka alone, along with selections from Kerala, West Bengal, Tamil Nadu, Maharashtra, Andhra Pradesh, Uttar Pradesh, Gujarat, Chhattisgarh, Delhi, Manipur, Jharkhand, Assam and Madhya Pradesh. In addition to rice, he maintains a rich diversity of perennial and horticultural crops, including 5–6 varieties of arecanut, 50 types of jackfruit, 5 varieties of nutmeg, 4 types of pepper, 25 varieties of Indian yam, 6 varieties of cassava, and over 100 medicinal plants. His work has strengthened local conservation systems, and he has shared 30 rice varieties with ZAHRS Brahmavara for further research and multiplication.

1| Six Decades of Conservation: The Rice Diversity Story of B.K. Devarao

SEED STORY

Devarao began conserving traditional seeds 64 years ago, gradually building his collection by sourcing varieties from fellow farmers across different states. Since 1988, he has practised fully organic cultivation, integrating traditional knowledge into every aspect of his farming. What started with a handful of landraces has grown into a rare and nationally recognised paddy gene pool.

His passion for seed conservation is fuelled by deep personal commitment and the unwavering support of his family—especially his daughter and son—who actively assist him in maintaining the collection. Each year, he grows more than 170 rice varieties on his farm, ensuring their purity and continuity.

His knowledge of paddy diversity is exceptional. He can identify different varieties solely by visual observation, and many landraces are cultivated for unique cultural purposes, including the preparation of Naivedyam dishes in temple rituals. He stores his seeds carefully in dedicated rooms within his home, where each variety is preserved according to traditional methods.

The journey has not been without challenges. Wild animal damage, natural disasters, and price constraints in his remote location pose ongoing difficulties. In 2019, heavy rains and landslides washed away nearly 15 of his conserved varieties. Despite these setbacks, he continues his work with determination, rebuilding and expanding his collection every year.

His contributions have benefited research institutions, universities, farmers' groups, and conservation networks. His efforts have been honoured at national and state levels, including the **Plant Genome Saviour Award (2020–21), Karnataka Rajyotsava Award (2019), SRISTI Samman (2004 & 2017), VK Super Star Farmer Award (2019), MAHE New Year Awards (2024)** and several district-level recognitions.

IMPACT

Devarao's work has inspired countless students, researchers, and farming communities. His home has become a learning space visited by scholars, scientists, and farmers seeking knowledge on rice biodiversity. Through seed sharing, training sessions, and collaborations with KVKs, agriculture departments, and NGOs, his conserved varieties continue to spread across regions, strengthening community resilience and safeguarding genetic heritage for future generations.

2| Safeguarding Local Varieties: The Conservation Efforts of Ramakrishna G. Bhat

Name of Farmer: **Ramakrishna Gajanan Bhat**
Place: Melina Onikeri Village, Sirsi Taluk, Uttara Kannada District
Seeds Conserved: **Paddy**

BACKGROUND

Farming eight acres in the fertile belts of Sirsi, Ramakrishna Gajanan Bhat balances commercial crops like arecanut, coconut, and pepper with a heartfelt commitment to conserving traditional paddy. One acre of his land is entirely dedicated to indigenous rice. This acre has grown into one of the wealthiest living paddy collections in the region.

SEED STORY

Ramakrishna began conserving native paddy varieties around the year 2000. What started as simple curiosity turned into a lifelong commitment to safeguard the diversity he felt was slipping away. Today, he conserves **over 350 paddy varieties**, including *Padmarekha, Mallige, Alur Sanna, Manjugguni Parimala Sanna, Mullare*, and many more.

His methods remain rooted in tradition: careful selection of pure seeds, sun-drying, storing in locally available containers, and using natural protectants to maintain viability. He believes that the wisdom of earlier generations holds solutions that are both ecological and affordable.

Maintaining such diversity is not easy—he faced issues such as pest damage, the risk of varietal contamination, and the sheer labour of managing hundreds of varieties. However, through patience and trial and error, he has developed reliable systems for storage and field maintenance. His efforts earned him the **Taluka-level Best Farmer Award** from the Department of Agriculture.

IMPACT

Ramakrishna's seed conservation work has brought meaningful change to his community. He trains fellow farmers in selecting, treating, and storing quality seeds, helping them reduce dependence on external, often expensive, commercial seed sources.

His collection strengthens agroecological resilience: diverse varieties encourage intercropping, improve soil health, reduce pest outbreaks, and enrich local ecosystems. Many of his conserved seeds also serve as valuable genetic material for future climate-resilient farming and restoration of local habitats.

His generosity extends beyond seeds—he regularly shares knowledge, offering guidance on sowing periods, storage practices, and varietal characteristics. His field has become a learning space where neighbouring farmers rediscover the value of diversity.

Name of Farmer: **Cheruvayal K. Raman**
Place: Kurichiya Village, Wayanad District, Kerala
Seeds Conserved: **50+ indigenous rice varieties**

BACKGROUND

Cheruvayal K. Raman, a highly respected Kurichiya tribal farmer from Wayanad, is widely known as a "living paddy gene bank" for his remarkable contribution to conserving Kerala's traditional rice diversity. Coming from a family with deep agricultural and cultural roots, Raman has preserved the Kurichiya community's ancient farming wisdom and organic practices despite rapid modernisation and the spread of hybrid seeds. Living simply and working on a modest patch of land, he maintains more than 50 rare native paddy varieties, many of which have vanished from mainstream agriculture. His work gained national recognition through the National Plant Genome Saviour Award and culminated in the prestigious Padma Shri. Today, Raman stands as a symbol of ecological

3| Seeds of Ancestry: Padma Shri Raman's Lifelong Rice Conservation Journey

resilience, cultural continuity, and grassroots conservation.

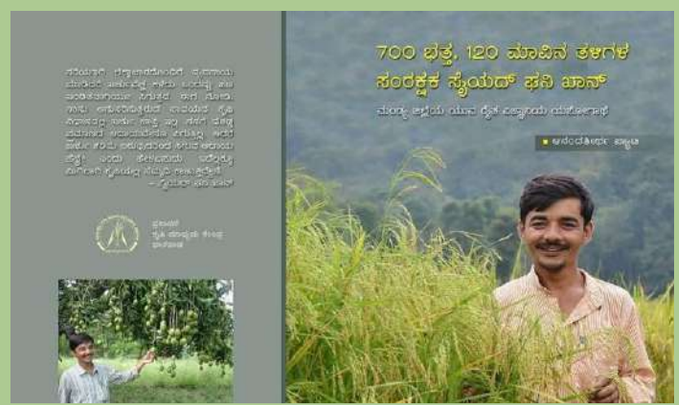
SEED STORY

Raman began conserving indigenous paddy varieties in his youth, inspired by stories from elders about their unique characteristics, medicinal properties, and cultural significance. As hybrid and high-yielding varieties spread across Kerala, he witnessed native landraces disappearing from fields, markets, and memory. Determined to preserve this heritage, he travelled across Wayanad's villages, collecting seeds—often receiving just a handful from elderly farmers who still held on to remnants of the past. Over the decades, he built a remarkable living collection of more than 50 traditional rice varieties, including aromatic, drought-tolerant, flood-resistant, medicinal, and ritual-specific types.

His seed preservation is entirely rooted in Kurichiya traditional knowledge, including field purification, selection of stress-tolerant plants, sun-drying on bamboo mats, storage in bamboo baskets and wooden chambers, and year-round field maintenance to prevent genetic contamination. Despite limited resources, he never compromised on purity. His home became an open seed library for farmers, researchers, and students. Awards and national recognition followed, but Raman remained grounded, continuing to farm in the way his ancestors had taught him: organically and respectfully.

IMPACT

Cheruvayal Raman's work has safeguarded priceless genetic diversity at a time when climate change threatens the resilience of crops. His conserved varieties have been reintroduced across Kerala, supporting farmers seeking climate-tolerant and low-input seeds. By freely sharing seeds and knowledge, he has strengthened community seed networks and rekindled interest in traditional rice varieties. His organic methods have become reference models for sustainable farming. Through field demonstrations, media coverage, and academic collaborations, Raman has inspired a new generation to value indigenous seeds, making him one of India's most influential grassroots conservationists.



Name of Farmer: **Syed Ghani Khan**
Place: Kirugavalu Hobli, Malavalli Taluk, Mandya District, Karnataka
Contact Details: 9901713351
Seeds Conserved: **1,350 paddy varieties, 116 mango varieties, 110 millet varieties, 20 vegetable varieties, multiple medicinal plants**

BACKGROUND

Syed Ghani Khan is a celebrated organic farmer and one of India's foremost custodians of traditional paddy biodiversity. Coming from a long line of farmers, he grew up deeply connected to the land. Although he studied Archaeology and Museology at Mysore University and aspired to become a museum curator, life led him back to his family farm. There, he transformed his vision into reality by establishing a "living museum" of indigenous seeds.

4| Saving Seeds, Saving Heritage: The Story of Syed Ghani Khan

Today, at his Rice Diversity Centre in Mandya, Khan conserves thousands of heirloom varieties, protecting them from extinction and passing forward the wisdom of his ancestors. His work has earned national recognition, including the prestigious Plant Genome Saviour Farmer Award. He continues to guide farmers, students, and researchers committed to sustainable and culturally rooted agriculture.

SEED STORY

Syed Ghani Khan began systematic seed conservation in the mid-1990s, though he had been farming since 1994. His journey took a defining turn when he managed to acquire just 40 grains of an unidentified paddy variety that his uncle refused to share. Those 40 grains yielded two full bags of rice—an outcome that filled him with wonder and curiosity. Later, an officer from the Karnataka Seed Corporation identified the variety as Ratna Choodi, which was once popular in Old Mysore but is now nearly extinct.

This incident shaped Khan's lifelong mission: to rescue disappearing rice varieties before they vanished forever. Since then, he has painstakingly collected, cultivated, and preserved 1,350 rice varieties, 116 mango cultivars, 110 millets, and numerous vegetables and medicinal plants.
His methods combine laboratory-based conservation, on-farm cultivation, meticulous storage, and year-to-year regeneration. He invests his own resources into expanding this living gene bank, ensuring purity, adaptability, and resilience. His fields now serve as a dynamic research and learning site where visitors experience India's agricultural heritage firsthand.

IMPACT

Syed Ghani Khan's work has played a critical role in preserving India's agroecological heritage. By safeguarding rare traditional varieties that offer nutritional value, climate resilience, and cultural identity, he strengthens local food systems and biodiversity. Thousands of farmers benefit directly from his efforts—he freely shares seed samples to encourage the revival of indigenous crops.

His Rice Diversity Centre attracts researchers, students, and policymakers seeking to understand sustainable agriculture. Through his conservation work, Khan supports ecological farming, improves rural livelihoods, and ensures that heritage seeds remain available for future generations.

Teacher's paddy conservation effort expands to 1,580 varieties in two years

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Udupi: Asma Banu, an English teacher and headmistress in-charge at Pervaje Govt Primary School in Karkala, expanded her collection of paddy varieties threefold over the past two years. Beginning with a modest number, she grew her collection to 500 varieties two years ago. Today, she cultivates around 1,580 paddy varieties on about 1.5 acres of the 10 acre plot owned by Venkatesh Mayya, a hotelier, in addition to taking up cultivation on fallow land.

She said, "It is my dream to conserve as many paddy varieties as possible, and document them for future generations." Her interest was sparked of by her husband, Abubakkar, who worked as a manager in a hotel, with a decade of paddy cultivation experience, who initially cultivated about 104 varieties. Facing challenges in managing his collection alongside his job, Asma decided to take on the task, focusing on preserving paddy varieties every year. "I am proud that our collection now has 1,580 varieties," she said. This effort, she hopes, will introduce people to diverse paddy types, and raise awareness about their medicinal benefits.

PASSION FOR FARMING: Asma Banu (inset), headmistress in-charge at Pervaje Govt Primary School in Karkala, has expanded her collection of paddy varieties threefold

She gathers seeds from across India, often collecting unique varieties during her travels with the Cultural Resource and Training Programme. Some of her seeds were given by Padma Shri awardee Sathyanarayana Beleri from Kasaragod. From next year, she plans to distribute at least one paddy variety to each of the 650 students at her school, so that children develop an interest in cultivation.

Her collection includes special varieties like Jugal, Rakthasali, Palkuda, Burma black, Dambarsali, Ramgalli, Navara, Karigajavili, Dodda Byre Nallu, Rathna Chodi, Gandhasale, and Sugandhi. She said, "Palkuda, a Kerala variety, is believed to benefit pregnant women, while Burma Black, known for its high iron and antioxidant content, requires 4.5 years to yield. Karigajavili, a beautiful variety from Karnataka, is considered beneficial for women's health, while Rakthasali is known for its medicinal properties. We also have an interesting variety, Raja Kayame, the oldest native variety, known for its medicinal properties, which is believed to have been used only by kings in the past," she said, adding that despite the demanding work, her goal is to document as many varieties as possible, available not just in India, but also the world.

5| Asma Banu: Championing Women-Led Seed Conservation in Karnataka

Name of Farmer: **Asma Banu**
Place: Sanoor, Karkala, Udupi
Contact Details: 9945912922
Seeds Conserved: **Paddy**

BACKGROUND

Asma Banu, an English teacher and headmistress-in-charge at the Government Primary School in Pervaje, Karkala, has become one of Karnataka's most committed paddy seed conservators. With her husband, Abubakkar, who works in the hospitality sector and actively supports her conservation efforts, she has turned her home and fields into a lively hub of seed diversity. She started as a small, curiosity-driven project that gradually grew into an impressive effort to revive and protect traditional rice varieties that are slowly disappearing from farms. The couple now maintains one of the largest private collections of indigenous rice seeds in the region, all nurtured through their commitment to biodiversity, healthy food, and community learning.

SEED STORY

Asma and Abubakkar started their conservation efforts nearly ten years ago, starting by storing traditional paddy seeds in small containers at home. Their motivation came from concerns about rapid lifestyle changes, increased dependence on chemical farming, and the decline of native rice varieties. Through years of collection, cultivation, and careful selection, their seed bank has grown to around 1,200–1,500 paddy varieties, many of which are rare, aromatic, medicinal, or climate-resilient. They continue to conserve these varieties every season to maintain the purity and viability of the seeds.

The journey has not been without challenges. In the early years, they lacked knowledge of the scientific background of seed-saving, struggled to maintain uniformity, and often travelled or connected across states to source rare varieties. Through collaboration with fellow conservators—especially mentors like Padma Shri awardee Sathyanarayana Beleri—they strengthened their techniques and significantly expanded their collection. Their work has been widely recognised, earning coverage from the Times of India, Deccan Herald, Vijaya Karnataka, and Power TV, along with honours from Rotary Clubs and the Udupi District Best Farmer Award.

IMPACT

The impact of Asma's conservation work extends beyond her farm into the wider community. The diversity she cultivates has reshaped their household's approach to food—enabling healthier, chemical-free consumption and significantly improving family well-being. Their conservation efforts also connected them with hundreds of farmers and researchers, building a strong network of seed savers and agroecological enthusiasts. Many have visited their farm to learn, exchange ideas, and revive native seeds in their own fields.
Asma and Abubakkar generously share their unique varieties with farmers in the neighbouring village and other states. Their farm has become an interactive classroom, inspiring both adults and children. Asma hopes to encourage the younger generation as well—she wants each of her students to grow at least one native paddy variety, thereby helping to preserve the legacy of seed conservation.

Name of Farmer: **H. G. Kumar**
Place: Dombekoppa, Shivamogga, Karnataka
Contact Details: 7996473910
Seeds Conserved: **Paddy**

BACKGROUND

Mr H. G. Kumar, a progressive farmer from Dombekoppa village in Kerehalli Hobli, Ripponpete, Shivamogga district, is widely recognised for his dedicated efforts in Integrated Farming Systems and traditional paddy seed conservation. His commitment and achievements have earned him both Taluk-level and District-level ATMA Awards. Supported and guided by the NGO SARA, located 11 km from Ripponpete, Mr Kumar has developed rich, hands-on experience in cultivating, producing, and preserving diverse indigenous paddy varieties over the long term. His farm stands today as a living repository of paddy seed diversity, nurtured through continuous learning, field experimentation, and passion for conserving traditional agricultural heritage.

Mr H. G. Kumar, son of Gurupadappa, is a progressive farmer from Dombekoppa village, Kerehalli Hobli, Ripponpete, Shivamogga district. His remarkable contribution to Integrated Farming Systems and traditional paddy seed conservation has earned him both Taluk-level and District-level ATMA Best Farmer Awards. He has been receiving continuous technical support from the NGO SARA, located near Ripponpete. Over the years,

6| H G Kumar: Guardian of 450 Indigenous Paddy Treasures

Mr Kumar has gained extensive experience in cultivating a wide range of paddy varieties and mastering sustainable conservation practices. His farm now stands as a resource centre for traditional paddy diversity and eco-friendly farming.

SEED STORY

Mr Kumar began his journey in conserving traditional paddy varieties after being inspired by a progressive farmer, Sri Devaraya from Ujire, Belthangadi taluk. Seeking more profound knowledge, he personally contacted him and learned the principles and importance of paddy landrace conservation. With the guidance he received, Mr Kumar started collecting, cultivating, and conserving different paddy landraces. Over the last five years, he has developed strong field-level expertise in this specialised area.

His motivation grew as he interacted with other progressive farmers and observed how well his land supported diverse traditional varieties. This compatibility encouraged him to expand his collection and improve his conservation efforts. Today, Mr Kumar has preserved an impressive 450 conventional paddy varieties, making his farm a living seed repository. He regularly cultivates several locally adaptive varieties, including Rathnachodi, Samara Rathnachudi, Mogra, Kaagisaale, Iruve Pandaya, Bada Chodi, Indrani, Calcutta Dhaan, Tulasi Sitta, Gidda Gowri, Karagaja Villy, Gunchalo Batha, Kempu Mundaga, and Raktha Shali.

For storage, he uses glass bottles and earthen pots, ensuring safe preservation of seeds. In the initial years, he faced challenges such as improper moisture management, pest infestations, and disease issues, especially since he practised organic farming. Eventually, by adopting improved techniques in drying, cleaning, and storage, he successfully addressed these problems.

Within a few years, his hard work gained recognition among local farmers. His dedication to collecting and conserving diverse paddy landraces inspired many others, and his efforts were acknowledged by various agricultural stakeholders who now refer to him as a Progressive Farmer.

IMPACT

Seed conservation has positively influenced Mr Kumar's livelihood and strengthened his connection with neighbouring farmers. Frequent visits from farmers, extension personnel, NGOs, and agricultural departments have fostered strong networks and created numerous opportunities for knowledge sharing.

Through field trips, Kisan Ghostis, and personal interactions, he actively supports other farmers in adopting traditional paddy varieties for better nutrition and ecological resilience. Local paddy varieties, rich in vitamins and minerals, play a crucial role in enhancing immunity and overall health. Mr Kumar not only conserves and multiplies these varieties but also distributes seeds to fellow farmers, promoting the cultivation of indigenous crops across the region.

Name of the Group: **Paramoola Kurichya Tharavadu**

Place: Wayanad District, Kerala

Seeds Conserved: **Paddy (Veliyan, Thondi, Chennellu, Gandhakasala), Vegetables, and Tuber crops**

BACKGROUND

The Kurichya community of Wayanad is historically recognised for its significant role in anti-colonial struggles and its profound agricultural heritage. The Paramoola Kurichya Tharavadu, one of the 49 major Tharavadus in the region, once cultivated 135 acres of rice fields under a collective farming system. Although landholdings have reduced over time due to socio-economic changes, the family continues to protect its agricultural legacy. Today, 28 nuclear families jointly farm 22 acres of wetland, led by Balan Paramoola, cultivating four traditional rice varieties—Veliyan, Thondi, Chennellu, and Gandhakasala. Despite agrarian distress, climate variability, and labour scarcity, the

7| Guardians of the Ancestral Grains: The Paramoola Kurichya Tharavadu

Tharavadu remains a resilient guardian of indigenous seeds, sustaining cultural, nutritional, and ecological values embedded in Kurichya rice traditions.

SEED STORY

The spread of high-yielding varieties, market pressures, and changing land use drastically reduced the area under traditional rice cultivation in Wayanad. With declining seed purity and loss of cultivation knowledge, farmers struggled to revive indigenous varieties. Recognising this gap, the Paramoola Kurichya joint family joined the Seed Village initiative facilitated by the Community Agrobiodiversity Centre of MSSRF. This collective platform brings together traditional rice growers from Wayanad and the Nilgiris to strengthen seed access, knowledge exchange, and market linkages. Through structured seed selection, careful field purification, and storage practices aligned with Kurichya traditions, the Tharavadu now conserves and multiplies pure seeds of Veliyan, Thondi, Chennellu, and Gandhakasala.

Participation in the initiative has also enabled premium prices for traditional rice and seeds, improving economic viability. Their longstanding efforts were formally recognised with the Adivasi Genome Saviour Award by the Wayanad District Tribal Development Action Council, acknowledging the family's role in protecting the genetic and cultural heritage of indigenous rice.

IMPACT

The Paramoola Tharavadu has supplied pure seeds of traditional rice varieties to over 500 farmers across the region, significantly expanding the cultivation of indigenous rice. Their farm serves as a living knowledge hub, attracting farmers, students, and researchers for hands-on learning experiences. By demonstrating ecological resilience, cultural importance, and market potential, the family has elevated the value of indigenous seeds within mainstream agricultural discourse. Through seed sharing, training, exhibitions, and field demonstrations, the Tharavadu strengthens biodiversity conservation, enhances community resilience, and safeguards the Kurichya community's agricultural heritage for future generations.

Name of Farmer: **Praseed Kumar Thayyil**

Location: Sulthan Bathery, Wayanad District, Kerala

Seeds Conserved: **163 rice varieties (field collection), 350 rice varieties showcased in the museum, 15 banana varieties, jackfruit, mango, tubers, and native tree species**

BACKGROUND

Praseed Kumar Thayyil, a committed farmer from Sulthan Bathery, is one of Kerala's most respected custodians of indigenous crop diversity. Growing up amid Wayanad's rich agro-ecological heritage, he developed a profound respect for traditional crops and the ancestral wisdom that sustained them. Over the years, he has witnessed a rapid erosion of landraces due to the use of hybrid seeds, changes in land use, and monocropping trends. Determined to preserve this heritage, he began collecting

8| A Museum of Seeds: The 350-Variety Legacy of Praseed Kumar Thayyil

indigenous varieties directly from tribal communities, elders, and forest-fringe settlements across Wayanad. Today, Praseed maintains one of the largest on-farm collections in the district and has also established a unique Paddy Seed Museum showcasing 350 varieties—transforming his conservation work into a dynamic public education resource.

SEED STORY

Praseed's journey began with a desire to trace the old rice varieties once grown in his childhood. His quest led him from village to village, where he met elders who preserved only a handful of grains—often stored in bamboo containers or hung from thatched roofs. Patiently rebuilding these collections, he amassed 163 live varieties grown on his farm, spanning aromatic types, drought-tolerant strains, medicinal rices, upland varieties, and water-resilient landraces.
As his collection expanded, Praseed realised that conserving seeds alone was not enough; knowledge also needed to be preserved. This motivated him to open a Paddy Seed Museum, where he now showcases 350 indigenous rice varieties collected from various regions. The museum benefits farmers, researchers, students, and the public, providing a rare glimpse into Kerala's agricultural history.

His conservation practice combines traditional techniques—such as sun drying and using heirloom storage vessels—with scientific methods, including systematic labelling, plot isolation, and periodic regeneration. He also conserves 15 banana varieties, local jackfruit and mango types, wild edibles, and tubers, turning his farm into a multi-species biodiversity sanctuary.

IMPACT

Praseed Kumar's work has revitalised traditional crop diversity in Wayanad, making indigenous seeds accessible to hundreds of farmers seeking climate-resilient, low-input alternatives. His Paddy Seed Museum has become a cultural and educational landmark, preserving 350 rice varieties and inspiring conservation efforts across the region. By sharing seeds freely and documenting traditional cultivation practices, he strengthens community resilience, food security, and ecological health. His work promotes agro-biodiversity, supports nutritional diversity, and encourages younger generations to value their agricultural heritage. Praseed's farm stands today as a living, learning ecosystem linking past wisdom with future sustainability.

Name of the Group: **Athikolly Women Collective**

Place: Athikolly, Wayanad District, Kerala

Seeds Conserved: **Traditional rice varieties (Gandhakasala, Thondi, Veliyan) an native vegetables**

BACKGROUND

The Athikolly Women Collective belongs to the Kurichiya Adivasi community of Wayanad, one of Kerala's most respected traditional rice-farming groups. The Athikolly joint family comprises 21 nuclear families that farm collectively across 21 acres, of which seven acres are dedicated to cultivating indigenous rice varieties, including Gandhakasala, Thondi, and Veliyan. The community holds deep ecological knowledge and has historically served as guardians of Wayanad's paddy biodiversity. Yet, traditional rice cultivation now faces immense challenges—lower yields, increased labour needs, climatic volatility, and shifting

9| Where Tradition Grows: The Rice Conservation Journey of Athikolly Tharavadu

market dynamics. The 2018 and 2019 floods devastated their fields, washing away topsoil and drastically reducing productivity. Even in these harsh conditions, resilient varieties like Veliyan survived waterlogging, reinforcing their cultural, nutritional, and ecological importance in a changing climate.

SEED STORY

As commercial hybrids spread and agricultural priorities shifted, the area under Wayanad's traditional rice varieties steadily declined. To safeguard their genetic heritage, the Athikolly joint family joined the Seed Village Initiative led by the Community Agrobiodiversity Centre of MSSRF. This collective platform brought together traditional rice-growing families across Wayanad and the Nilgiris, enabling the Athikolly women to secure pure seed stock, strengthen cultivation knowledge, and access better market opportunities.

The Seed Village network became crucial after the 2018 floods, which devastated their riverbed wetlands. Supported by the initiative, the family restored their fields using preserved seeds from their own community reserves and the collective's seed bank. This revival reaffirmed the role of indigenous varieties—particularly Veliyan, known to regenerate even after prolonged flooding.

Their dedication and success earned them the Adivasi Genome Saviour Award, recognising their efforts to safeguard rare landraces. Today, Leela, Divya, and the women of the Athikolly Tharavadu continue to cultivate traditional rice and native vegetables, sustaining centuries-old knowledge while adapting to emerging climate challenges.

IMPACT

The Athikolly Women's Collective has supplied pure seeds of traditional rice to over 200 farmers across Wayanad and neighbouring regions. Their farm has evolved into a vibrant community learning space, where farmers, researchers, students, and visitors gain hands-on experience in traditional paddy farming and seed conservation. Through exhibitions, farmer trainings, and awareness programmes, they have helped integrate indigenous rice conservation into mainstream agricultural discussions. Their work strengthens biodiversity, enhances climate resilience, and revitalises cultural heritage—demonstrating how women-led community stewardship can keep traditional seed systems alive for future generations.

Name of Farmer:	**Nagaraj Mohan Naik**
Place:	Kagal, Kumta Taluk, Uttara Kannada District, Karnataka
Contact:	9741374244
Seeds Conserved:	**Traditional paddy varieties**

BACKGROUND

Nagaraj Mohan Naik is a respected farmer from Kagal village in Kumta, known for his deep commitment to conserving traditional rice varieties of coastal Karnataka. Coming from a family rooted in natural farming, he continues the practices passed down from his grandfather, cultivating crops without the use of chemical fertilisers and maintaining harmony with the local ecosystem.

His work in preserving diverse paddy landraces has far-reaching significance, particularly in the ecologically fragile Western Ghats and coastal delta regions. By maintaining a vast genetic pool of indigenous paddy types, Nagaraj contributes to long-term agricultural resilience, ensuring that future generations have access to nutritious,

10| Protecting Coastal Heritage: The Seed Legacy of Nagaraj Mohan Naik

hardy rice varieties that are suited to climate variability. His dedication to sustainability, seed purity, and community well-being has earned him several prestigious honours at the state and national levels.

SEED STORY

A central part of Nagaraj's conservation efforts is his focus on safeguarding the unique Kagga rice landraces native to the Aghanashini River delta, where freshwater and seawater meet. These varieties—especially Bili Kagga and Kari Kagga—are known for their exceptional resilience, flood tolerance, salinity resistance, and rich nutritional value.

Nagaraj began conserving these seeds after observing that younger farmers were shifting to commercial hybrids, resulting in a decline in seed purity and the loss of traditional varieties. Determined to protect this legacy, he began collecting, multiplying, and maintaining pure Kagga lines through traditional methods, including selective panicle harvest, sun-drying, and storage in eco-friendly containers. He collaborates closely with agricultural universities and seed scientists to catalogue these landraces and ensure their long-term preservation in formal seed banks. His contributions support ongoing research on climate-resilient rice genetics and sustainable coastal agriculture.

In recognition of his work, Nagaraj has received the National Innovative Agriculture Award, State Best Farmer Award, and honours from UAS Dharwad.

IMPACT

Nagaraj's conservation efforts have revitalised traditional paddy diversity in the Aghanashini delta and strengthened local farming resilience. By promoting Bili Kagga and Kari Kagga, he has ensured the survival of salt-tolerant, nutrient-rich varieties uniquely adapted to coastal ecosystems. His work reduces dependency on external seed markets, encourages chemical-free farming, and preserves ecological stability.
Through seed sharing and farmer outreach, he has established a community-level network dedicated to reviving traditional rice cultivation. These conservation efforts have become so influential that Kagga rice varieties have now been proposed for a Geographical Indication (GI) tag, further recognising their cultural and agricultural value.

Name of Farmer:	**Bhattada Boregowda**
Place:	Shivalli, Dudda Hobli, Mandya Taluk, Mandya District, Karnataka
Contact Details:	7829020746
Seeds Conserved:	**210 traditional paddy varieties**

BACKGROUND

Bhattada Boregowda comes from a family deeply rooted in farming, with agricultural knowledge passed down from his father and grandfather. With over 35 years of experience, he has become a respected custodian of traditional rice diversity in Shivalli, Mandya district. His commitment to organic and traditional farming methods grew stronger as modern varieties began replacing native seeds. Determined to preserve cultural heritage, he established a unique rice seed museum in 2009, showcasing 210 varieties of paddy and their characteristics. His work has been widely recognised through district, state, and national awards, including the National Plant Genome Saviour Farmer Award (2018–19). Boregowda's dedication reflects his belief

11| Bhattada Boregowda: The Rice Guardian of Shivalli

that conserving native seeds is essential for ecological resilience, food purity, and the future of sustainable farming.

SEED STORY

Boregowda began conserving traditional paddy varieties more than three decades ago, inspired by his family's legacy and the rapid disappearance of indigenous rice from local fields. He travelled across Karnataka, visiting villages, fellow farmers, and tribal hamlets to collect heirloom rice varieties that were once common but now endangered. To ensure their survival, he established a rice museum at his brother's house in 2009, cataloguing each variety with crop duration, yield, aroma, and seasonal suitability. Among his most celebrated contributions is the development of "Sidda Sanna" in 2012, named in memory of his parents. Grown organically, this variety is highly tolerant to pests and fits both cropping seasons. As part of his "Save Our Rice" movement, he freely distributes Sidda Sanna seeds to farmers across the region. He follows traditional storage practices, sun-drying seeds, maintaining purity, and regenerating varieties annually. The museum has evolved into a learning space visited by farmers, students, and researchers seeking knowledge on native rice conservation.

IMPACT

Boregowda's conservation efforts have strengthened biodiversity, revived forgotten paddy varieties, and helped farmers regain confidence in traditional seeds. His organic methods have improved soil health, reduced external input costs, and enhanced the nutritional quality of household food. By freely sharing seeds and knowledge, he has established a community network of farmers dedicated to cultivating native rice. His museum has become a cultural landmark, inspiring young people and farmers to value their indigenous rice heritage. Through his work, organic farming myths have been challenged, and sustainable seed preservation has become a respected practice in the region.

Millet Farmers & Dryland Biodiversity Custodians

Champions of climate-resilient food crops

Name of Farmer: **Ashok Mahadevappa Halli**
Place: Shagoti Village, Gadag Taluk & District
Contact Details: 9164236936 | kvkhulkoti@gmail.com
Seeds Conserved: **Millets, Wheat, Pulses, Groundnut, Vegetables, Cotton**

BACKGROUND

Ashok Mahadevappa Halli, a dedicated farmer from Shagoti village in the dryland region of Gadag, has become a respected conservator of traditional crop varieties on his 3.5-acre farm. Deeply committed to sustainability, he began his journey in 2012, guided by his growing awareness of soil degradation, the declining nutritional quality of modern crops, and the need to revive hardy, indigenous varieties suited to local conditions. Training and inspiration from the Krishi Vigyan Kendra (KVK) in Hulkoti strengthened his resolve to adopt eco-friendly farming practices. Over the years, Ashok has preserved 24 traditional varieties of millets, wheat, pulses, vegetables, and cotton, turning his farm into a centre of biodiversity restoration. His dedicated efforts have earned him several recognitions, including the prestigious Nelada Siri Award and the Krishi Pandit Award, as well as honours at national and international platforms, positioning him as a role model for farmers who embrace traditional seeds and natural farming.

12| Reviving Dryland Biodiversity: The Seed Story of Ashok M. Halli

SEED STORY

Ashok's seed conservation work took shape more than a decade ago when he began collecting and cultivating traditional varieties of wheat, jowar, greengram, groundnut, and cotton. His motivation came from his concern for public health, environmental stewardship, and the need to revive nature-friendly farming systems. Today, he conserves 24 indigenous varieties, including Kunjar, Sanna, Amruth, Kari and Sadaka wheat; Sadagar Nandyala, Kempu, White and Dundadeni sorghum; Hurpula and Haal foxtail millet; Kari and Hasiru greengram; Mardur and Shagoti groundnut; local horsegram, coriander, sabbasagi, white brinjal, chilli, drumstick; and the traditional Jaidar cotton.

Ashok relies on traditional wisdom combined with ecological farming methods. His practices include crop rotation, summer ploughing, mulching with daincha, application of farmyard manure, and integrating livestock in his farming system. These practices rejuvenate soil fertility and increase crop resilience.

Despite his dedication, Ashok faced several challenges, particularly in marketing traditional produce, managing pests without the use of chemicals, and mechanising harvests for dwarf landraces. He overcame these hurdles by adopting direct marketing, building networks with consumers, KVKs, government bodies, and partnering with Sahaja Samruddha Organics, Bengaluru, for value-based sales. His varieties—such as Sadagar Nandyal sorghum and Kari Hesaru greengram—have gained recognition at the Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA), New Delhi.

IMPACT

The cultivation of traditional varieties has significantly improved the health and well-being of Ashok's family and consumers who value their superior nutritional quality and reduced chemical exposure. These resilient varieties naturally withstand pests and diseases, strengthening on-farm biodiversity while minimising reliance on external inputs. Ashok's work has also enhanced community resilience—his seeds are sought after by farmers across neighbouring villages, and many have reported better yields and lower cultivation costs after adopting his varieties. Through seed sharing, knowledge exchange, and active participation in fairs and competitions, Ashok has made meaningful contributions to conserving genetic diversity and strengthening local seed systems.

Name of Farmer:	**Raimati Ghiuria**
Place:	Nuaguda Village, Koraput District, Odisha
Contact:	7681845604
Seeds Conserved:	**Millets and traditional paddy**

BACKGROUND

Raimati Ghiuria (39), from the Bhumia tribal community of Nuaguda in Koraput, is widely known as the "Queen of Millets" for her remarkable role in conserving indigenous crops. Cultivating 3.8 acres, she follows traditional mixed and intercropping systems integrating millets, pulses, cereals, vegetables, and tubers. Committed to organic farming, she enriches soil health using farmyard manure and prepares her own bio-inputs, including Handikhata, Neemastra, Agneyastra, Jeevamruta, and Amrutajal. Alongside agriculture, she developed a successful model for mushroom cultivation, which enhanced her income and inspired local households. With continuous support from MSSRF, she

13| Raimati Ghiuria: The Millet Queen of Nuaguda

runs a village farm school where she trains farmers, especially women, on sustainable, low-cost, and climate-resilient practices. Her extraordinary contributions earned her honorary doctorates from OUAT (2024) and Berhampur University (2025), elevating her as a respected figure in Odisha's agroecological landscape.

SEED STORY

Raimati's seed conservation journey began in her teenage years, when she observed her parents cultivating diverse indigenous crops. By the age of sixteen, she noticed a shift in her village—farmers were abandoning traditional seeds in favour of hybrid monocropping of paddy, cotton, and potato. The decline of indigenous varieties deeply concerned her. A turning point came when she attended an MSSRF village meeting on traditional seeds and organic farming, where she realised that losing a seed meant losing ancestral knowledge. Inspired by Padma Shri Kamala Pujari, she began collecting native seeds from elderly farmers across neighbouring villages.

With support from MSSRF, she learned scientific seed selection, earhead purification, and documentation while staying rooted in tribal traditions. She stores seeds in earthen pots layered with neem leaves, Karanja leaves, and ash, and uses an indigenous water test with potato and salt to assess seed quality. Today, she conserves around 30 millet varieties and 80 traditional paddy varieties. Her farm functions as a vibrant community seed bank and training centre, empowering women and strengthening local seed sovereignty.

IMPACT

Seed conservation has transformed Raimati's livelihood and strengthened biodiversity in Nuaguda. By reviving climate-resilient millet and paddy varieties, she has enhanced food security, reduced dependence on market seeds, and restored ecological balance on her farm. Her work has reintroduced forgotten crops into local fields, improving resilience to drought, erratic rainfall, and pest pressures. Through seed-sharing, training programs, and community seed festivals, she has helped build a strong culture of collective learning among tribal farmers. Her leadership has revived traditional food practices and restored pride in indigenous agricultural heritage across the region.

Name of Farmer: **Ms Dona Bhoi**
Location: Machhara Village, Umuri GP, Koraput Block, Koraput District, Odisha
Seeds Conserved: **Finger millet, Little millet, Foxtail millet, Paddy**

BACKGROUND

Ms Dona Bhoi, 34, is a progressive and dedicated tribal woman farmer from Machhara village in Koraput district, Odisha. Unmarried and living with her brother's family, she plays a central role in supporting the household while simultaneously emerging as a strong agricultural leader in her community. Over the years, she has gained recognition for her work in millet cultivation, seed production, and processing. As a custodian of traditional knowledge and improved scientific practices, she conserves and promotes finger millet, little millet, foxtail millet, and paddy.

Her association with MSSRF has been a turning point. After being trained in agronomic techniques, value chain development, and millet-based enterprises, she began adopting improved practices, including the System of Millet Intensification (SMI), line transplanting, and the use of cycle weeders. Today, she cultivates finger millet seeds across two acres of land. She serves as a strong role model for many women in her village, inspiring them to adopt scientific and resilient farming systems.

14| A Custodian of Millets: The Seed Conservation Journey of Dona Bhoi

SEED STORY

Ms Bhoi began conserving traditional seeds in 2018, initially producing finger millet using conventional broadcasting methods, which yielded only 3–4 quintals per acre. Exposure to scientific training by MSSRF helped her adopt improved techniques, such as SMI, which increased her yield to nearly 12 quintals per acre. This dramatic improvement motivated her to take up millet seed production as a serious livelihood enterprise.

Her motivation continues to grow through higher productivity, stable income, and recognition from government institutions and community platforms. She now conserves several millet and paddy varieties, including local finger millet landraces suited to Koraput uplands, selected little millet cultivars, foxtail millet grown in hilly terrain, and a few indigenous paddy types.

For seed conservation, she follows careful traditional techniques—selecting healthy, pest-free plants; drying ear heads thoroughly; and storing seeds in bamboo bins and earthen pots layered with neem leaves for pest management. She also mixes ash to regulate moisture, combining traditional knowledge with scientific guidance.

Her early challenges included low productivity, limited market linkages, heavy labour requirements, and a lack of confidence in adopting new practices. With persistent technical support from MSSRF, small tools like the cycle weeder, and several exposure visits, she overcame these barriers. She gradually transitioned to improved agronomic practices that reduced drudgery and significantly increased yields.

Ms Bhoi has received notable recognitions, including the National Virtual Academy Award, presented during the International Conference on Mighty Millets in Chennai. She represented her community at a farmer–scientist review meeting in Dehradun, organised by the DBT, Government of India. As a Board Member of Kolab Farmer Producer Company, she mobilises more than 200 women farmers and plays an active role in collective marketing and enterprise development.

IMPACT

Seed conservation has strengthened her livelihood through steady income from certified millet seed production, while also enriching local biodiversity. Her efforts have revived traditional millet varieties, supported climate-resilient farming, and fostered a strong culture of seed sharing and collective learning among women farmers. Community resilience has increased as more farmers adopt traditional varieties that are high in adaptability and nutrition.

Ms Bhoi regularly shares seeds within Machhara and neighbouring villages, contributing to community-managed seed distribution systems through the FPO and inspiring many women to become seed producers themselves.

Name of Farmer: **Mr Hari Nayak**
Place: Atalguda, Chandrapada GP, Boipariguda Block, Koraput District, Odisha
Seeds Conserved: **Oilseeds, Pulses, Vegetables**

BACKGROUND

Mr Hari Nayak, aged 36, is a marginal farmer from Atalguda village in Boipariguda block, Koraput district, Odisha. He owns two acres of land and supports his family through both farming and daily wage labour. In 2014–15, he cultivated paddy on the entire two acres. However, from the following year, he diversified his land use—paddy on 1.6 acres, groundnut and tomato on 0.3 acres, and okra on 0.1 acres. This shift marks his gradual movement from a conventional, single-crop system to a more diversified and sustainable farming approach.
Hari is married and a father of one son. Despite having limited land and resources, he has consistently shown an interest in improving his farming practices. He initially cultivated groundnut on 0.2 acres using the traditional broadcasting method. His transition toward diversification and improved cultivation methods reflects his willingness to learn and adapt, even as a smallholder farmer.

SEED STORY

Since 2014, Mr Hari has been conserving traditional seed varieties of pulses, oilseeds, and vegetables. Initially, he

15| Hari Nayak: A Custodian of Traditional Pulses and Oilseeds in Koraput

hesitated to use traditional seeds due to the high cost of improved varieties in the market. With the support and guidance of MSSRF, Jeypore, he gradually came to understand the value of conserving local varieties and began cultivating them on a larger scale. He actively participated in training programmes, adopted recommended agronomic practices, and slowly integrated organic methods into his farming. His dedication eventually enabled him to emerge as a seed-producing farmer in his locality, inspiring many others to follow similar practices.

Hari's motivation strengthened when he observed the strong performance of traditional seed varieties even during unfavourable weather conditions. With continuous technical guidance from MSSRF and opportunities to participate in major platforms, such as the National Consultation on Sustainable Seed Systems (2024) and the International Conference on Bio-happiness (2025), his confidence and leadership grew significantly.

He now conserves multiple varieties: 2–3 types of traditional groundnuts, including Khajuri Badam and Nitya-Harita; five varieties of pulses, including Sujata, Karibara, and Lotabiri; and several vegetable varieties. He learned about many of these through seed festivals, where farmers exchanged seeds and traditional knowledge. His seed-saving method includes selecting healthy pods from low-pest patches, sun-drying them, and storing them in earthen pots with dried neem leaves and ash to prevent pests and moisture.

The significant challenges he faced included farmers' preference for high-yielding improved varieties, market biases, and low farmer awareness. With steady support from MSSRF and the application of modern techniques to traditional crops, he overcame these hurdles and built trust among fellow farmers. Over time, traditional varieties gained popularity for their taste and quality, further validating his efforts.
Hari's work earned recognition at the National Seed Consultation Workshop (2024). He also serves as a Board Member of the Kukudanal Farmer Producer Company.

IMPACT

Seed conservation has enriched biodiversity, protected primitive crop varieties, and significantly reduced dependency on external inputs, thereby lowering cultivation costs and enhancing household income. The collective exchange of seeds has strengthened community cooperation, unity, and resilience. Seed conservation has become a powerful tool for building social cohesion and sustainable livelihoods in his village.

Hari actively shares traditional seeds within his village and neighbouring areas through farmer networks and the FPO, fostering collaboration and collective growth.

Name of Farmer: **Ramadhar Pateriya**
Location: Padwaha Village, Chhatarpur District, Madhya Pradesh
Contact: 8889899877
Seeds Conserved: **Millets (Ragi, Jowar), Traditional Wheat (Kathia Wheat)**

BACKGROUND

Ramadhar Pateriya, a 48-year-old farmer from Padwaha village in Chhatarpur district, belongs to a family deeply rooted in traditional agriculture. Living with six family members, farming remains their primary livelihood across 25 acres of jointly owned land, which is shared with his brother. Although they cultivate several crops, Ramadhar dedicates around 2.5 acres to coarse grains and millets using indigenous practices passed down from his father, who grew Kathia wheat for decades. Witnessing the slow disappearance of traditional crops in the village, he felt compelled to preserve the seeds that once defined their farming identity. His respect for ancestral practices, combined with a growing interest in

16| Seeds of Strength: Ramadhar Pateriya's Millet Revival Journey

sustainable, low-input agriculture, inspired him to take up seed conservation as a responsibility for both family health and community wellbeing.

SEED STORY

Ramadhar's seed conservation journey began in 2023, when he attended a Seed Saving and Collection Fair organised by Abhyudaya under the SuATI Project. The exposure helped him understand the nutritional, ecological, and cultural value of indigenous seeds, motivating him to start conserving local varieties of ragi, jowar, and Kathia wheat. His conviction grew stronger when his brother-in-law developed diabetes and high blood pressure—leading the whole family to adopt millet-based diets. This personal experience reinforced his belief that traditional grains are key to long-term health and climate resilience.

Today, he conserves three key varieties: ragi, jowar, and Kathia wheat. His seed-saving method is rooted in traditional wisdom—mixing seeds with dried neem leaves and storing them in earthen pots sealed from the top. This ensures purity, longevity, and protection without the use of chemicals. Although he initially struggled with low yields and water scarcity, guidance from elders and Abhyudaya experts helped him adapt climate-smart practices. Over time, villagers began recognising him as a reliable source of pure indigenous seeds, often seeking his support for cultivation and household consumption.

IMPACT

Seed conservation has improved Ramadhar's household nutrition, diversified their diet, and reduced dependence on market seeds. By cultivating millets—crops that require less water and fewer inputs—he lowered production costs while strengthening his farm's climate resilience. His efforts have helped revive local biodiversity, inspiring neighbouring farmers to reintroduce traditional grains into their fields. Many villagers now approach him for seeds, advice, and millet grain for their own consumption at home. His home functions as an informal seed hub, contributing to community wellbeing and ensuring that indigenous varieties continue to thrive in Padwaha.

Name of Farmer: **Bahadur Singh**
Place: Baidar, Nowgong Block, Chhatarpur District, Madhya Pradesh
Seeds Conserved: **Indigenous linseed varieties – Raji, Katia, Kondo**

BACKGROUND

Bahadur Singh, a dedicated farmer from Baidar village in Chhatarpur district, cultivates about seven acres of land to support his family of five. His village, home to nearly 1,500 people, once cultivated a rich diversity of traditional crops—particularly indigenous linseed varieties that were central to the local diet and farming culture. Over the past two decades, modern agricultural practices, chemical fertilisers, and hybrid seeds have largely replaced these older varieties. Although yields declined, soil fertility began to fall, and awareness of traditional seeds waned. Growing health concerns such as diabetes and high blood pressure further made families reconsider

17| Reviving Linseed Heritage: Bahadur Singh's Conservation Journey

their food choices. In 2023, Bahadur joined Abhyudaya, where he learned about the ecological and nutritional value of indigenous seeds. This learning rekindled his interest in traditional crops and inspired him to revive his village's lost linseed heritage.

SEED STORY

Bahadur's journey into seed conservation started when he realised how indigenous linseed varieties benefit soil health, nutrition, and long-term sustainability. During training sessions at the old Kisan Vidyalaya under Abhyudaya, he learned that traditional seeds are better suited to local soils, need fewer inputs, and help maintain the farm's ecological balance. Although hesitant at first—mainly due to lower yields and limited market demand—Bahadur was encouraged by experts who explained that local seed markets develop naturally once more farmers start cultivating indigenous crops.

Motivated by this, he began restoring traditional linseed varieties, such as Raji, Katia, and later Kondo, on 2–3 acres of his land. He revived ancient preservation methods, including sun-drying and storing seeds with natural materials to defend them from pests. Over time, traders and moneylenders began purchasing his linseed seeds for resale in nearby markets, which boosted his confidence and income. Today, Bahadur not only produces clean, chemical-free food for his family but also shares seeds with neighbours and encourages them to grow traditional crops. His home has become a trusted source for pure linseed seeds in the village.

IMPACT

Seed conservation has greatly enhanced Bahadur Singh's soil fertility while lowering reliance on chemical inputs. By growing indigenous linseed varieties, his family now eats healthier, chemical-free food, and biodiversity in his fields has noticeably increased. His efforts have revived forgotten linseed varieties in Baidar, helping to restore the village's agricultural heritage. Through seed exchanges and farmer awareness-raising, he is gradually building a community seed network that fosters resilience and self-reliance. Bahadur's work encourages other families to return to traditional crops and cherish their ancestral farming knowledge.

Name of Farmer: **Sri Lakshme Gowda / Nanjunadappa**
Location: Kuntanahalli, Kasaba Hobli, Doddaballapura Taluk, Bengaluru Rural District
Contact: 9844543335
Seeds Conserved: **Millets, Pulses, Vegetables**

BACKGROUND

Sri Lakshme Gowda, fondly known as Nanjunadappa in his village, hails from Kuntanahalli in Doddaballapura Taluk. With just one acre of land, he has become a remarkable example of how determination and intelligent resource use can transform small-scale farming. Coming from a modest background, he steadily built a productive and sustainable farm by adopting the Integrated Farming System. His farm today is a vibrant mix of millets, pulses, vegetables, fruits and honey production through well-managed apiaries.

Despite having limited land, he has significantly enhanced his income by diversifying his farming activities, primarily through honey marketing and seed conservation. His dedication, hard work, and curiosity to preserve traditional agricultural

18| A One-Acre Seed Revolution: The Legacy of Sri Nanjunadappa

wisdom have shaped him into a respected farmer-conservator in the region.

SEED STORY

Sri Lakshme Gowda's journey in traditional seed conservation began in 2015–16 with a simple intention—saving finger millet seeds for the next season. Over time, he realised the immense value of preserving native varieties, not just for cultivation but for safeguarding the genetic heritage of crops. This awareness encouraged him to expand his efforts beyond finger millet, leading him to conserve several varieties of pulses and vegetables.

Today, he conserves more than 15 traditional varieties. Among finger millets, he nurtures landraces such as Kaddimurakalu Ragi, Bili Kaddi Ragi, Karikaddi Ragi, Giddaragi and Hullu Ragi. In pulses, he preserves both brown and white desi avare (field beans). He also conserves the Pungi bottle gourd variety, along with traditional pumpkins, ridge gourds, and other native vegetables. He stores seeds systematically in airtight plastic containers—a method well-suited for his scale, although he continues to struggle with challenges such as limited storage space and pest infestations. Despite these hurdles, he remains committed to keeping these varieties alive, recognising their role in nutrition, climate resilience and cultural identity.

His efforts have earned him significant recognition, including the Taluk, District, and State ATMA Awards, Krishi Panditha Prashasthi, ICAR awards, and honours from the University for his work in Integrated Farming, Apiary Management, and seed conservation.

IMPACT

Sri Lakshme Gowda's work has had a profound impact on his livelihood and the community. Seed conservation has made him more self-reliant, reducing dependency on seed markets and enabling him to generate additional income through sharing and selling seeds. More importantly, his work has revived interest in traditional crop diversity among fellow farmers. By maintaining these native varieties, he contributes to strengthening the region's biodiversity, ensuring crops that are better suited to local soils and changing climatic conditions. His journey illustrates how small farms can become centres of genetic wealth and knowledge, inspiring others to preserve their own agricultural heritage.

SECTION 3

Vegetable, Multi-Crop & Integrated Farming Conservators

Farmers diversifying landscapes through heirloom vegetables and mixed crops

Name of Farmer:	**Shri Kallappa Sannabasappa Navalur**
Place:	Guruvinahalli, Dharwad, Karnataka
Contact Details:	9844082414
Seeds Conserved:	**Pulses (desi green gram – Kari hesaru / Chali hesaru)**

BACKGROUND

Kallappa Navalur hails from the village of Guruvinahalli in Kundagol taluk, Dharwad district. Growing up in an agricultural family and having studied up to the S.S.L.C. level, he now leads a household of ten, including his spouse, children, and daughters-in-law, all of whom contribute to the family's farming efforts. On his 6.16 acres of dryland, he cultivates green gram, cotton, jowar, groundnut, safflower, Bengal gram, soybean, and maize. Farming remains the primary source of income for the family, bringing in approximately ₹2.5–3 lakh annually. Beyond crops, he practices integrated farming with two desi cows and follows organic farming practices across his land.

19| Preserving Ancestral Seeds: The Green Gram Journey of Kallappa S. Navalur

SEED STORY

For more than a decade, Kallappa has faithfully conserved the traditional black-coloured desi green gram, a variety passed down through generations in his family. He retrieves seeds originally handed down by his ancestors and continues to nurture and multiply them on his farm, honouring his heritage while contributing to seed sovereignty in his region.

Driven by a strong connection to his ancestral legacy and the cultural value of this landrace, Kallappa persists in cultivating this desi green gram. He often says that the local community values its rich flavour in everyday dishes, which further motivates his work. He hopes, in time, to expand his conservation efforts to include other native crop seeds grown in his region.

His traditional knowledge guides his seed-saving process: once the crop is mature, the pods are harvested, sun-dried thoroughly, and carefully stored in jute bags. To protect against storage pests, he layers the seeds with dried neem leaves and ash—a simple but effective method passed down through generations.

Kallappa's journey has not always been easy. Many of his neighbours urged him to switch to high-yielding improved varieties, which offer quick returns. However, he stood firm in his commitment to the desi type, and over the years, his conserved variety has shown strong resilience, with less pest incidence and reliable performance. His persistence paid off: local farmers began sourcing seeds from him, admiring the quality, taste, and adaptability of his conserved green gram.

IMPACT

Seed conservation by Kallappa has had a profound and enduring impact on his livelihood, his community, and the region's biodiversity. By preserving the black desi green gram, he is safeguarding key genetic diversity that contributes to ecosystem resilience. Through seed production and exchange, he strengthens his economic self-reliance and provides fellow farmers with access to traditional, local seeds.

His work fosters community cohesion: neighbours come to him for seeds and advice, and through his efforts, he encourages a culture of dialogue around heritage farming. The cultivation of this landrace also builds agricultural resilience, offering a source of food security even in challenging climatic conditions. His dedication ensures that valuable ancestral seeds remain alive and are passed on to future generations.

Name of Farmer:	**Dr Prabhakar Rao, Founder, HariyaleeSeeds**
Location:	Taralu Village, Uttarahalli Hobli, Bengaluru South, Bengaluru, Karnataka
Contact Details:	9611922480 bandirao@gmail.com www.harileeseeds.com
Seeds Conserved:	**Traditional and indigenous varieties of vegetables**

BACKGROUND

Dr Prabhakar Rao, Founder of HariyaleeSeeds, is a landscape architect, environmentalist, and seed conservationist whose work bridges modern science with traditional agricultural wisdom. After completing his PhD in Genetics and Plant Breeding and spending several decades abroad as a landscape architect, he returned to India, driven by the alarming loss of indigenous crop diversity. Motivated to protect endangered traditional vegetables, he established HariyaleeSeeds at Taralu Estate in Bengaluru South—a farm that has

20| Dr. Prabhakar Rao: Conserving India's Indigenous Vegetable Heritage

since evolved into a living seed sanctuary. Drawing from scientific training and deep cultural understanding, Dr Rao works closely with farmers, indigenous communities, and natural farming practitioners to revive, multiply, and distribute rare vegetable cultivars. His mission is grounded in a powerful belief: that seeds carry memory, resilience, and the promise of future food security.

SEED STORY

Dr Rao's seed conservation journey began in the early 2000s, when he noticed that heirloom vegetable varieties were rapidly disappearing from markets and farm landscapes. What started as collecting a few forgotten cultivars soon evolved into a systematic conservation effort spanning diverse agro-climatic regions across India. His motivation lies in the understanding that each seed carries centuries of evolutionary adaptation, flavour, and cultural history—genetic legacies that cannot be recreated once lost.

Today, Dr Rao conserves more than 560 traditional vegetable varieties, including heritage tomatoes, indigenous brinjals, ash gourds, chillies, greens, and rare ethnobotanical crops. His methods draw from Vrikshayurveda, controlled open pollination, and participatory farm-led selection, ensuring purity and long-term stability of each conserved variety.

He has overcome challenges such as genetic contamination, unpredictable climatic shifts, and spatial limitations through strict isolation protocols, collaborations with small farmers, and satellite conservation plots.

His work through HariyaleeSeeds has been recognized nationally by natural farming networks, environmental groups, and seed sovereignty movements. His research on digital logic architecture offers one of India's first structured, science-based models for seed traceability, value sharing, and scaling native seed production—potentially transforming the future of indigenous seeds.

IMPACT

Dr Rao's efforts have significantly strengthened biodiversity and farmer resilience by reintroducing hardy traditional vegetable varieties suited to local ecologies. These seeds help reduce dependence on hybrids and chemical inputs while restoring flavour, nutrition, and ecological balance.

Through beeja daanas (seed gifting), community seed festivals, and farmer networks, his work has revived agrodiversity and cultural memory across regions. HariyaleeSeeds continues to mentor farmers, home gardeners, FPOs, and natural farming practitioners, enabling more communities to become custodians of living seeds. His contributions serve as a national model for sustainable, heritage-based seed systems.

Name of Farmer:	**Salai Arun**
Location:	Mangalam Village, Musiri Taluk, Trichy District, Tamil Nadu
Contact:	9361911171
Seeds Conserved:	**300+ native vegetable and fruit varieties**

BACKGROUND

Salai Arun, an organic farmer from Mangalam village in Tamil Nadu, transformed a personal loss into a lifelong mission of seed conservation. Having been raised by his grandparents after the early loss of his mother, Arun developed a deep emotional connection to farming while observing his grandfather's agricultural routines. Despite being encouraged to pursue other livelihoods, his commitment to agriculture only strengthened over time. A pivotal moment came in 2011 when he met celebrated organic farming scientist Nammalvar at a book fair. Inspired by this encounter, Arun trained at Vanagam

21| Salai Arun – India's Travelling Seed Guardia

and became a certified organic farming practitioner. This foundation led him toward seed conservation, shaping him into one of Tamil Nadu's most passionate guardians of native vegetable diversity.

SEED STORY

Although Arun began organic farming training in 2011, his focused seed conservation journey took shape in 2021. During his years as a trainer, he observed an alarming decline in the traditional vegetable varieties on farmers' fields. Determined to fight this erosion of biodiversity, he committed to preserving heritage seeds. Motivated by his grandfather's teachings, Nammalvar's philosophy, and the belief in food sovereignty, he began collecting endangered varieties from across India.

His incredible quest began with Rs. 300. He initially travelled 6,000 km on a second-hand bicycle, later covering an estimated 50,000 km on a 150 cc Platina bike, which he acquired with a friend's support. Over the course of five years, sustained by the generosity of fellow farmers, he travelled over 80,000 km across 15 states, collecting endangered varieties. Over time, he amassed more than 300 rare seed varieties and meticulously maintained detailed records for each crop.

Arun established his seed bank, Karpagatharu, and built a national network of seed custodians who exchange seeds with him. His mission emphasises organic cultivation, traditional seed selection, and knowledge-sharing to ensure these varieties remain available for future generations.

IMPACT

Arun's conservation of over 300 native vegetable varieties has significantly contributed to safeguarding India's agricultural genetic diversity. Through his Karpagatharu seed bank, he offers farmers reliable access to traditional seeds, promoting climate-resilient, low-input farming systems. His free distribution of seeds to over 500 farmers, combined with hands-on organic farming trainings, has strengthened grassroots food sovereignty.

Arun's national seed-sharing network and active presence on WhatsApp and social media have created a decentralised, farmer-led movement for conserving heirloom varieties. His journey demonstrates how one individual can revive agricultural heritage and inspire a new generation of seed savers.

Nameof Farmer: **Kishor Singh**
Location: Kau ka Kheda Village, Barmer District, Rajasthan
Seeds Conserved: **Bajra (2 types), Desi moth (2 types), Cucurbits, Sesame, Desert medicinal plants (Gokhru, Shankhpushpi, Agnimonth)**

BACKGROUND

Kishor Singh, 68, is a respected natural farmer from Kau ka Kheda village in Barmer, one of India's driest regions with an annual rainfall of only 277 mm. Farming in such harsh conditions requires a deep understanding of ecology, and Kishor has spent decades refining drought-resilient practices rooted in tradition. Coming from a farming family, he has built a diverse cropping system that supports both food and livelihood security in an arid climate. His close association with the Krishi Vigyan Kendra (KVK) in Gudamalani has strengthened his technical understanding through regular training on soil health, crop management, and seed conservation. Recognised for his commitment to sustainable dryland farming, he has been honoured by KVK for his leadership and exemplary field-level innovations.

22| Kishor Singh – Conserving Seeds and Wisdom in Rajasthan's Arid Landscapes

SEED STORY

Kishor Singh's seed conservation journey began with the realisation that traditional crops were disappearing from local farming systems as hybrid seeds became more common. Determined to preserve climate-hardy landraces, he started collecting and cultivating local kharif seeds, including two varieties of bajra, desi moth beans, and traditional cucurbit species such as matira and kachariya. These crops are well-adapted to desert soils, requiring minimal water and thriving in extreme temperatures. Alongside food crops, Kishor cultivates several desert medicinal plants, including Gokhru, Shankhpushpi, and Agnimonth, which are valued for their therapeutic uses in local communities.

His seed-saving process is guided by traditional knowledge, including barefoot soil testing to understand moisture and texture, careful observation of weather patterns, the selection of vigorous plants, and the use of simple organic inputs. Seeds are sun-dried and stored securely using age-old household methods. Recommended seed rates—10–12 kg/ha for moth and 3–4 kg/ha for bajra—ensure optimal plant health and yield. Over time, Kishor's commitment has positioned him as a reliable custodian of desert-adapted seeds.

IMPACT

Kishor Singh's conservation efforts have revitalised traditional seed diversity in his community, enabling farmers to access locally adapted varieties that thrive with minimal rainfall. His work supports the revival of rainfed farming, reduces dependency on external markets, and enhances ecological balance in fragile desert ecosystems. Through seed sharing and farmer-to-farmer learning, he promotes community resilience and strengthens local food systems. His conserved landraces offer drought-tolerance, lower risk, and greater stability for marginal farmers. Kishor's dedication ensures that valuable desert biodiversity and traditional knowledge continue to flourish for future generations.

Name of Farmer: **N M Shaji**
Place: Nenmeni, Wayanad District, Kerala
Seeds Conserved: **300+ indigenous edible tuber varieties (yams, taros, cassava, colocasia, wild tubers), plus associated wild food plants.**

BACKGROUND

N.M. Shaji, widely known as the "Tuber Man of Kerala", is one of India's most influential custodians of underground crop diversity. Based in Nenmeni, Wayanad, he grew up observing tribal communities depend heavily on tubers for food security, especially during monsoon scarcity. Over time, he noticed these nutrient-rich crops disappearing from fields as farmers shifted to high-yielding hybrids and commercial crops. Alarmed by the erosion of this genetic wealth, Shaji began collecting, documenting, and cultivating tubers from forest fringes, indigenous settlements, local markets, and remote villages. His deep commitment to

23| Keeper of Underground Wealth: Shaji, the Tuber Man of Kerala

agro-biodiversity and food sovereignty has earned him national recognition, including the Plant Genome Saviour Farmer Award. Today, his farm serves as one of the country's richest living collections of edible tuber species.

SEED STORY

Shaji's journey into tuber conservation began in the late 1990s, when he realised that many wild and cultivated tuber species—once the backbone of food security in Wayanad—were rapidly disappearing due to the spread of commercial crops and the loss of tribal farming traditions. Determined to save this underground heritage, he travelled across forest fringes, tribal settlements, remote hamlets, and local markets to collect rare tubers, gradually building an extraordinary living collection of more than 300 edible varieties. Each discovery came with a story—some grew only in sacred groves, others were used as famine foods, medicines, or seasonal staples by tribal communities. To maintain purity, he regenerates each variety annually, adhering to tribal wisdom on tuber health, and employs organic inputs, isolated plots, sand beds, bamboo baskets, ash treatment, and underground pits for storage, depending on the species. Over time, his home transformed into a knowledge hub where farmers, researchers, students, and NGOs come to learn about tuber biodiversity, conservation methods, and the cultural significance of these forgotten crops.

IMPACT

Shaji's work has restored Wayanad's underground biodiversity and strengthened food security for local communities. Many of the tubers he preserves are climate-resilient, needing minimal water and thriving even when crops fail, making them essential for future adaptation. He generously shares planting materials with farmers, has revived rare tubers that are now reappearing in home gardens, and has inspired young people to appreciate local food systems. His contributions have influenced regional biodiversity policies, earned multiple national awards, and made his farm a living repository of indigenous genetic resources—helping to keep Kerala's tuber heritage alive for generations.

Name of Farmer: **Makhan Singh Lodhi**

Place: Village Rurawan, Block Shahgarh, District Sagar, Madhya Pradesh

Seeds Conserved: **Millets (Mawka, Bajra, Jowar, Kodo, Kutki, Kangni); Pulses (Moong, Black Gram, Chickpea, Masoor, Pigeon Pea); Vegetables (Sponge gourd, Bottle gourd, Beans, Chilli, Coriander, Potato, Garlic, Onion, Cucumber, Suran, Eggplant, Tomato) and Other crops (Barley, Linseed, Groundnut, Mustard, Rai, Rajgira)**

BACKGROUND

Makhan Singh Lodhi, a hardworking smallholder farmer from Rurawan village in Sagar district, lives with his wife and four children who together manage their family's five-acre farm. With one son married and both sons contributing through farm labour and wage work, agriculture remains

24| Custodian of Diversity: Makhan Singh's Journey of Seed Revival

the primary source of livelihood. Makhan Singh practices mixed farming and livestock rearing to sustain the household. His life took a new direction when he attended a farmer meeting under the SuATI project, where he learned about agroecological farming and the importance of traditional seeds. Motivated by the declining presence of indigenous varieties in his village and the challenges farmers faced in accessing them, he joined the initiative to improve his family's well-being while reviving lost biodiversity in the community.

SEED STORY

Makhan Singh had always preserved a few local seeds using simple traditional methods, but with limited knowledge and scope. When he joined the SuATI project, he realised how rapidly indigenous seeds were disappearing and how essential they were for maintaining soil health, nutrition, and the well-being of future generations. This awareness became his strongest motivation. He often says that if farmers do not save these seeds today, their children may never even hear their names tomorrow.

With project support, he learned proper seed selection, sun-drying, the use of neem leaves, and safe storage in earthen pots and husk. He expanded his collection to include millets, pulses, oilseeds, and vegetables—cultivating crops such as Mawka, Kodo, Kutki, Jowar, Moong, linseed, mustard, Rajgira, and various gourds. His passion strengthened when he received a marigold garland during a local meeting. Instead of discarding it, he saved the seeds, planted them, and created a vibrant marigold patch—an everyday reminder that seed conservation is a way of living. Today, Makhan Singh is recognised locally for his growing collection and dedication to preserving indigenous crops.

IMPACT

Seed conservation has transformed both Makhan Singh's livelihood and his village. Previously, only a few kilograms of desi jowar were grown locally; today, through the seeds he preserved and shared, nearly 51 farmers have revived the crop across about 35 acres. His conserved seeds also provide additional income and ensure his family consumes nutritious, chemical-free food. Biodiversity on his farm has increased significantly, reducing input costs and enhancing resilience to climatic stress. A community-led seed exchange system has emerged around him, strengthening solidarity and helping restore traditional crop diversity in the region.

Name of Farmer:	**Eswaramoorthy and Kala Eswaramoorthy**
Place:	Kanjikoil Village, Erode District, Tamil Nadu
Contact Details:	9361742302
Seeds Conserved:	**Indigenous vegetable seeds, traditional chilli lines, heirloom paddy, Erode Turmeric Samba, Ridge gourd**

BACKGROUND

Eswaramoorthy and Kala, a dedicated farming couple from Kanjikoil in Erode district, have spent over twenty years working their land. Like many smallholder families, they initially relied on hybrid seeds, but faced rising input costs, declining soil fertility, and increased vulnerability to climate stress. Their turning point came when HOOGA Seed Keepers Collective—an organisation working with smallholders on native seed revival—carried out biodiversity awareness campaigns in their region. Inspired by the need to improve soil health and reduce dependence on external inputs, they joined HOOGA's training programs

25| Reviving Erode's Native Seeds: The Journey of Eswaramoorthy & Kala

on open-pollinated seed production. This experience changed their approach. With organic certification and new confidence, the couple rebuilt their farm around native varieties, agroecological practices, and seed sovereignty. Today, their farm serves as a local example of biodiversity and regenerative agriculture.

SEED STORY

The couple began conserving traditional seeds in 2022 after attending HOOGA's farmer awareness sessions. The declining presence of authentic native varieties—and memories of what their elders once cultivated—moved them to take responsibility for preserving their region's agricultural heritage. Guided by HOOGA, they learned structured techniques in seed selection, isolation, hand pollination and maintaining purity in open-pollinated varieties.

Today, they conserve and produce several native crops, including Erode Turmeric Samba, Ghost-type long ridge gourd, traditional chilli lines, desi tomato selections, heirloom paddy, and a variety of seasonal vegetables. Their methods combine traditional wisdom with scientific rigour: sun-drying seeds on clean cloth, treating them with ash, using controlled isolation distances, and practising precise hand pollination in chilli crops.

Their early challenges included understanding strict selection criteria and maintaining isolation to ensure purity. Continued field mentoring from HOOGA helped them master these practices. The couple's seed varieties are now among the most sought-after on HOOGA's platform, and they work closely with the collective to maintain quality and scale up production.

IMPACT

Native seed production has strengthened their livelihood by decreasing reliance on external inputs and ensuring a consistent income through HOOGA's seasonal seed buyback program. Their farm is now a diverse mix of indigenous varieties, enhancing soil fertility, biodiversity, and resilience to climatic shifts. By sharing seeds and motivating neighbouring farmers to adopt local varieties, they have become village-level ambassadors for the HOOGA seed conservation movement. Their work supports the revival of regional biodiversity, promotes farmer autonomy, and reinforces a community-driven model of sustainable, climate-resilient agriculture.

Name of the Group:	**HOOGA Seed Keepers Collective**
Place:	Kanjikoil Village, Erode District, Tamil Nadu
Contact Details:	9361742302
Seeds Conserved:	**Indigenous, native and heirloom vegetable seeds, traditional paddy varieties, traditional millets, native green manure crops, turmeric and tubers**

BACKGROUND

HOOGA Seed Keepers Collective is a women-led social enterprise founded by Sowmya Balasubramaniam, who left a successful IT career to pursue her passion for livelihoods and social entrepreneurship. After securing a gold medal from TISS, Mumbai, Sowmya built HOOGA as a platform dedicated to preserving India's rich seed heritage and empowering small farmers. Working across Tamil Nadu, Kerala, and Karnataka, HOOGA brings together over 50 farmers and women's groups to revive native, climate-resilient seed varieties. The enterprise has

26| Cultivating Heritage: The HOOGA Seed Keepers Collective Story

become a trusted bridge between grassroots knowledge and scientific seed production techniques. HOOGA's mission is rooted in the belief that seed sovereignty, biodiversity, and farmer autonomy must coexist. Today, HOOGA stands as a regional model for community-driven conservation, ethical seed production, and women's leadership in agroecology.

SEED STORY

HOOGA's journey began with the intent to rebuild community-led seed conservation systems and address the rapid disappearance of native seed varieties. The collective works closely with farmers across three states, focusing on open-pollinated varieties with high cultural and nutritional value. Nutritional profiling of selected varieties—for example, the Trefle du Togo tomato—revealed superior protein levels, motivating farmers to scale sustainable heirloom vegetable production.

Farmers such as Eswaramoorthy and Kala of Erode, Senthil of Aapakoodal, and George of Kerala play a pivotal role in HOOGA's seed bank. They cultivate unique varieties, including Erode's small pumpkin, Samba turmeric, Ghost Ridge gourd, Assam Giant tree okra, Elephant Tusk okra, heirloom corn, and several chilli types. HOOGA trains farmers through a curriculum co-designed with the Tamil Nadu Agricultural University (TNAU), combining grassroots traditions with scientific standards for seed purity.

The collective is now working with Myrada KVK, Gobichettipalayam, to develop a community seed bank in the tribal villages of the Sathyamangalam Tiger Reserve. HOOGA's ongoing "seed yatra" initiative strengthens seed exchange networks and fosters the discovery of native varieties across regions.

IMPACT

HOOGA's work has significantly enhanced local biodiversity, strengthened climate resilience, and improved farmer livelihoods. By promoting native seeds, the enterprise reduces dependency on hybrid inputs and empowers small farmers—especially women—to become seed stewards. Stories like that of Suhara from Palakkad, who now conserves over 20 traditional chilli varieties despite earlier social restrictions, demonstrate HOOGA's transformative social impact. The collective's initiatives—including seed sharing programs, farmer exhibitions, and the award-winning HOOGA Seed Club for schoolchildren—are inspiring a new generation of seed keepers and ensuring India's agricultural heritage remains vibrant and alive.

Name:	**Chhatar Singh**
Place:	Ramgarh Village, Jaisalmer District, Rajasthan
Contact Details:	96721 40359
Seeds Conserved:	**Wheat landraces (5 varieties), Guar (4 varieties), Taramira (2 varieties), Gram landraces, Desi moong, Desi moth, Sesame, Cucurbits, Ayurvedic desert medicinal species**

BACKGROUND

Chhatar Singh, 64, is a highly respected natural farmer from Ramgarh in Jaisalmer District, Rajasthan—one of India's driest regions. Farming in this extremely arid climate, he has revived and refined the ancient Khadeen farming system, where crescent-shaped earthen bunds capture monsoon runoff and retain moisture for winter crops. His more than 40 years of experience in dryland agriculture have made him a local expert in managing soils, seeds, and water in challenging desert ecosystems.

27| Chhatar Singh: Custodian of Desert Seeds and Khadeen Wisdom

With technical support from KVK Jaisalmer, he has participated in on-farm trials of wheat and gram under RKVY and received recognition from Swami Keshwanand Rajasthan Agricultural University (SKRAU), Bikaner, in 2024. His farm today stands as a living repository of traditional seeds and desert medicinal plants, demonstrating how indigenous knowledge can sustain livelihoods in harsh climates.

SEED STORY

Chhatar Singh is known for conserving an exceptional range of traditional seeds that thrive in desert conditions. His work spans five indigenous wheat landraces—Kathia, Kunjariya, Masurdi, Sona Moti, and Kali Umbi—each selected for their exceptional drought tolerance, high grain quality, and cultural significance. He also maintains traditional gram varieties, including Desi Black Gram, achieving yields ranging from 20–25 quintals to 100 quintals per quintal of seed.

His oilseed collection includes yellow and black mustard, 23 taramira varieties, sesame, and fenugreek. For kharif, he conserves four guar types, desi moong, moth, sesame, and diverse cucurbits such as matira, kachariya, tinda, and tumba. A unique part of his work is the preservation of more than 15 desert Ayurvedic species, including Gokhru, Shankhpushpi, Apamarg, Dhamasa, Rigani, and Oind.

His conservation practices are rooted in traditional ecological wisdom, including Khadeen water harvesting, barefoot soil testing, bird-based pest control, and organic formulations such as Jeevamrit, Ghan-Jeevamrit, and biochar. Overcoming harsh climate and low rainfall, he has maintained these varieties through careful selection and seasonal adaptation, making him a key guardian of Thar Desert agro-biodiversity.

IMPACT

Chhatar Singh's work has revitalised traditional seed diversity across 21 villages, strengthening drought-resilient farming systems in the Thar Desert. His seed-sharing networks have enabled farmers to access hardy landraces that reduce input costs and ensure stable yields under water-scarce conditions. By promoting Khadeen farming, organic inputs, and ecological pest management, he has improved soil health and biodiversity while restoring traditional knowledge.

His efforts have built community confidence in local seeds, supported climate-resilient livelihoods, and renewed cultural ties to the heritage of desert farming—making him one of Rajasthan's most influential seed conservators.

Name of Farmer:	**Md. Ghulam Ahmed Khadri**
Place:	Bagadal, Bidar District, Karnataka
Contact:	9741167835
Seeds Conserved:	**Traditional millets, paddy, and pulses**

BACKGROUND

Md. Ghulam Ahmed Khadri is a progressive and experienced farmer from Bagadal village in Bidar district. Coming from a family with a long agricultural lineage, he cultivates a diverse range of crops, including sugarcane, soybean, red gram, green gram, paddy, sorghum, and wheat. Over the years, he has developed a deep interest in preserving traditional landraces that his father and forefathers once cultivated.

His knowledge of ecological farming, traditional storage, and seed selection reflects the wisdom passed down through generations. With an increasing reliance on hybrids and chemical-intensive agriculture in the region, Khadri's commitment to conserving native varieties stands out as an

28| Md. Ghulam Ahmed Khadri – Guardian of Bagadal's Native Seeds

act of cultural and ecological responsibility. Today, he is regarded as one of the few farmers in the area who continues to maintain and multiply indigenous seeds, ensuring their continuity for future generations.

SEED STORY

Md. Khadri began conserving traditional seeds many years ago, guided by the practices he learned from his family and community elders. Using simple and natural storage methods such as mud pots, glass bottles, and earthen containers, he preserved seeds of local rice, red gram, green gram, sorghum, and other native crops. These practices helped maintain purity, viability, and resistance to pests.

His motivation comes from a deep belief in the strength of traditional crops—landraces that thrive under low-input conditions, adapt to poor soils, and withstand drought, pests, and climatic fluctuations. He values them for their taste, nutrition, and cultural significance.

Although he faced challenges such as rodents and a lack of modern storage facilities, he overcame them by utilising improved traditional containers, ash layering, and neem leaf treatment. With time, his confidence grew as his conserved varieties performed well even during adverse weather. Today, he stands as a trusted resource for farmers seeking indigenous seeds, carrying forward the legacy his ancestors protected.

IMPACT

Seed conservation has strengthened Khadri's livelihood by ensuring access to climate-resilient, nutritious, and low-cost indigenous crops. His fields now feature a diverse array of landraces that improve soil health, reduce dependency on external inputs, and enhance long-term sustainability. These varieties contribute to biodiversity conservation and provide stable yields despite unpredictable weather conditions.

Khadri frequently shares and exchanges seeds with neighbouring farmers, encouraging them to revive traditional crops and reduce reliance on hybrid markets. His work promotes resilience, food security, and the restoration of forgotten landraces in Bagadal and surrounding villages.

SECTION 4

Mountain, Highland & Multi-Crop Community Seed Systems

Collectives restoring Himalayan and Western Ghats genetic wealth

Name of Farmer:	**Junee Mountain Farmers Producer Company Limited**
Place:	Village Dhangiara, PO Jahal, Tehsil Chachiot, District Mandi, Himachal Pradesh
Contact Details:	8219301560, 9816026820 juneemfpcl@gmail.com
Seeds Conserved:	**Indigenous landraces of Kidney beans, Barley, Buckwheat, Red rice, Amaranth, Rice beans, Mustard, Wheat, Maize vegetables (pumpkin) and other mountain crops**

BACKGROUND

In the Himalayan landscape of Junee Valley, where agro-biodiversity is rapidly disappearing due to the dominance of cash crops, the Himalayan Research Group (HRG) initiated a community-based revival of native mountain crops. In 2021, HRG established a Community Seed Bank (CSB) at Dhangiara village to safeguard local landraces of red rice, barley, buckwheat, kidney beans, rice beans, and amaranth—crops that were once

29| Junee Valley Community Seed Bank – Reviving Native Mountain Crops in Himachal Pradesh

central to mountain nutrition but are now grown by only a few households. Working with 10 custodian farmers from different villages, HRG and Junee Mountain Farmers Producer Company Limited (JMFPCL) mobilised community knowledge and seed heritage that were on the brink of disappearance. The initiative, supported by CSKHPKV Palampur and NBPGR, collected germplasm from across mountain regions for testing, multiplication, and conservation. As younger generations shifted toward market-driven agriculture, this effort reconnected communities with their traditional food systems, ensuring that culturally significant and climate-resilient native crops remain an active part of Himalayan farming.

SEED STORY

The revival journey began around 2018, when HRG identified custodian farmers across Kandhi Kamrunag and Jahal Panchayats and initiated crowdsourced trials involving 111 farmers and 109 landraces of six major mountain crops. Through baby trials and farmer-led evaluation, each variety was tested on 10–15 parameters, with results recorded using the ClimMob Tricot platform to generate detailed performance profiles. This participatory approach enabled communities to rediscover robust, nutritious, and climate-resilient landraces suited to mountain agro-ecosystems.

The project addressed significant challenges—lack of storage, processing, branding, and youth interest—by establishing a Mountain Technology Centre with a 1000 sq. ft processing and storage facility. Seed preservation methods combined traditional wisdom with modern systems, including sun-drying, storage in earthen pots, walnut-leaf layering for insect control, and bulk seed storage in steel drums. Ritual practices, such as the offering of the first harvest to local deities, remain integral to the seed cycle. Ultimately, 17 high-performing landraces were selected for value chain development, and more than 70 varieties, including 25 types of kidney beans, are now conserved in the Community Seed Bank.

IMPACT

The seed conservation efforts of JMFPCL and HRG have revitalised native mountain crops and strengthened local food systems across Junee Valley. The CSB now ensures reliable and affordable access to locally adapted seeds, thereby reducing dependence on external markets and enhancing climate resilience. Value chain development through the FPO has improved farmer incomes, especially for women participating in seed-saving and processing activities. Conservation of indigenous landraces has enhanced genetic diversity, nutritional security, and community self-reliance. Seed-sharing systems, which return 150% of the seed to the CSB, foster solidarity while enabling expansion into neighbouring districts, such as Kullu and Kinnaur.

Name of Farmer: **Mastu Devi**
Location: Chameri–Samnos, Chachiot Taluk, Mandi District, Himachal Pradesh
Seeds Conserved: **Red rice, kidney beans, amaranth, barley, brassica, flax, coriander, methi, and other indigenous mountain crops (14 in total)**

BACKGROUND

In the mid-hill region of Mandi district, where commercial cash crops have increasingly replaced traditional mountain foods, only a handful of farmers continue to safeguard indigenous crop diversity. Among them, 60-year-old Mastu Devi stands out as a respected custodian farmer from Chameri–Samnos village. Raised in a farming household where seed preservation was integral to culture and survival, she maintains a rich diversity of native crops on her limited land. The growing interest in climate-resilient foods and efforts to

30| Mastu Devi: A Custodian of High-Altitude Agrodiversity in Mandi District

register farmers' varieties under PPV&FRA have further highlighted her longstanding contributions. Working with NGOs and local institutions, she preserves and multiplies traditional seeds while cultivating both native and commercial crops. Her knowledge of storage, seed purity, and traditional food preparations makes her a vital resource in her community.

SEED STORY

Mastu Devi conserves seeds of fourteen traditional crops, with a focus on red rice, kidney beans, amaranth, barley, brassica, flax, coriander, and methi. Her conservation work follows an annual seed cycle that her family has practised for generations. Each year, she selects the healthiest plants from isolated plots, carefully purifies them, and stores the seeds using traditional methods. After sun-drying, she stores seeds in clay pots, sacks, reused tins, and milk or sweet cans, adding walnut leaves, cloves, and other natural repellents to protect them from insects. This method preserves seeds' viability without the use of chemicals and helps maintain their purity across seasons.

Her skills extend beyond storage—she is known in the community for preparing traditional recipes using red rice, barley, and methi. Her red rice mix for lactating mothers, made with roasted methi and rock salt, is widely respected for its nutritional value. Training from NGOs strengthened her ability to evaluate different red-rice landraces, helping her refine selection and improve seed quality. Today, she supplies clean seeds to neighbouring farmers, NGOs, and research institutions, supporting the local revival of native crops.

IMPACT

Through her dedication, Mastu Devi has strengthened household food security and preserved key Himalayan landraces that are vulnerable to extinction. The indigenous crops she conserves—especially red rice, barley, and kidney beans—have demonstrated strong tolerance to heavy rain and drought, making them valuable in a changing climate. Her seed work reduces reliance on the Public Distribution System (PDS) by ensuring households have food stocks for several additional months. By sharing and bartering seeds, she enhances community resilience and seed sovereignty. Exposure through HRG to national platforms and universities has further encouraged her to systematise and expand her conservation practices.

Name of Farmer: **Chita Chendia**
Place: Machhara, Koraput Block, Koraput District, Odisha
Seeds Conserved: **Millets and Paddy**

BACKGROUND

Chita Chendia, 34, is a leading marginal woman farmer from Machhara village in Umuri Gram Panchayat of Koraput Block, Odisha. She cultivates diverse crops across her 8.5 acres of land—1.70 acres of lowland for paddy, 0.30 acres of medium land for vegetables, and the remaining upland devoted to various millet crops. Over the years, she has gained recognition in her community for her expertise in millet seed production and for adopting scientific and climate-resilient cultivation practices.

Supported by long-term technical guidance from MSSRF, Chita has strengthened her skills in growing finger millet, little millet, and traditional paddy using improved agronomy. Since 2018, she has consistently allocated 3–4 acres of upland exclusively for finger millet seed production every year. Her commitment, leadership, and technical understanding have made her one of the most respected women farmers in the region, inspiring several households to revive millet cultivation.

31| Strengthening Local Seed Systems: The Journey of Chita Chendia

SEED STORY

Chita's journey into seed conservation began when scientific millet cultivation practices were introduced in her village through MSSRF initiatives. Realising the importance of preserving traditional crops and seeing the improved performance of local millet varieties, she began cultivating and conserving seeds of **finger millet, little millet, and paddy**.

Her motivation is rooted in the growing demand for quality seeds and the better economic returns she earns from seed production. The recognition she has received as a reliable seed producer, coupled with her role in community-led agriculture initiatives, has further strengthened her resolve.

Today, Chita conserves a range of local varieties, including eight finger millet landraces, several lines of little millet preserved within the community, and three indigenous aromatic paddy varieties. She follows a meticulous seed selection process—identifying the best-performing, pest-free patches, choosing healthy ear heads, and sun-drying them thoroughly. Seeds are stored using traditional techniques such as earthen pots layered with neem leaves for pest control, ash for moisture regulation, and mud-sealed lids to maintain airtight storage.

Her early challenges included resistance from farmers accustomed to modern varieties, frequent climate-related setbacks, and the labour-intensive nature of millet cultivation. With sustained technical support, access to tools like cycle weeders, and adoption of practices such as SRI, SMI, line sowing, and line transplanting, she overcame these barriers. Her success gradually encouraged neighbouring farmers to shift towards traditional millets.

Chita is an active leader of the Shabari Producer Group, which manages a multigrain processing unit in Machhara. She makes significant contributions to the processing, grading, and packaging of local millet and paddy products. Under her leadership, 56 farmers cultivated millet seeds across 91 acres. She and her husband also produce bio-inputs for their village, a community initiative supported by MSSRF. Her efforts have become a model for sustainable millet-based livelihoods in Koraput.

IMPACT

Seed conservation has helped strengthen Chita's livelihood and enhanced community resilience by ensuring year-round access to quality local seeds. It has reduced dependence on external seed markets, increased biodiversity, and supported climate-smart farming in the region. Through seed sharing, processing, and collective work, women's leadership and community cohesion have grown significantly. Today, Chita regularly shares seeds with farmers in her village and nearby areas, enabling wider adoption of traditional varieties and strengthening local seed networks.

Name of Farmer: **Rajani Swargiary**
Location: Digheli Village, Barama, Baksa District, Assam
Contact Details: 6002285880
Seeds Conserved: **Traditional paddy (Phool Pakhri, Ranjit, Sticky rice), leafy greens, roselle leaf, pumpkin, ridge gourd, ash gourd, sponge gourd, bottle gourd, knol khol, king chilli, chilli, brinjal (12-monthly), mustard, sesame**

BACKGROUND

Rajani Swargiary, 50, is a dedicated farmer from Digheli village in Baksa district, Assam, and a member of the Bodo tribal community. Seed and soil have been an integral part of his life since childhood, when he watched his parents cultivate diverse traditional rice varieties central to Bodo culture, cuisine, and rituals. Over the years, however, hybrid seeds began replacing indigenous ones, leading to an erosion of both biodiversity and cultural identity. Witnessing this loss, Rajani committed himself to reviving the heirloom

32| Rajani Swargiary – Reviving Bodo Heritage Through Indigenous Seeds

varieties his community once depended on. Over the past decade, he has emerged as a key seed custodian in the Barama region, promoting climate-resilient traditional crops and strengthening local farming systems rooted in ecological wisdom and Bodo heritage.

SEED STORY

Rajani's seed conservation journey began in 2008, when he realised that only a handful of elders still preserved indigenous paddy varieties. The strong performance of Bao paddy grown by his neighbour reinforced his belief that traditional rice is far better suited to Assam's flood-prone ecology. Motivated to protect this legacy, he began collecting seeds from relatives, elderly community members, and Bodo cultural groups. Today, he conserves three paddy varieties—Phool Pakhri, sticky rice, and Ranjit—along with two oilseed varieties and nearly ten traditional vegetables, including spinach (lai xaak), roselle leaf, pumpkin, ridge gourd, ash gourd, sponge gourd, brinjal, bottle gourd, and local chillies.

Rajani employs traditional Bodo seed-saving methods, including sun-drying seeds on bamboo mats, storing grains in Duli bins, and placing neem or curry leaves above the stored seeds to deter pests. His early challenges included difficulty accessing pure seeds, pest damage, limited storage, and farmer hesitation toward traditional crops. Through workshops under the SuATI project, in collaboration with KVK and agricultural universities, he adopted improved organic practices that strengthened seed purity and production.

IMPACT

Rajani's efforts have significantly revitalised agrobiodiversity in Digheli and neighbouring villages. More than ten farmers now cultivate at least one indigenous paddy variety sourced from his collection, reducing vulnerability to floods and erratic rainfall. His farm has become a practical demonstration site for low-input, eco-friendly cultivation, helping households lower costs while restoring traditional foods. Seed sales from paddy, oilseeds, and vegetables have diversified his family income. Through regular participation in district-level seed exchanges, Rajani promotes seed independence and cultural preservation, ensuring that Bodo heritage crops and their stories remain accessible to future generations.

Name of the group:	**Maa Kalika Women's Seed Bank**
Place:	Shahpur Khurd Village, Shahnagar Block, Panna District, Madhya Pradesh
Contact Details:	9301365619
Seeds Conserved:	**Traditional vegetable seeds (bhindi, lauki, kaddu, bheda), millets (kutki), leafy greens (palak), pulses (barbati), maize, arhar and other local indigenous varieties**

BACKGROUND

In Shahpur Khurd village of Panna district, women struggled with limited vegetable diversity in their kitchen gardens, growing only three to four crops each season. This directly affected household nutrition—especially women and children, who faced dietary gaps and limited access to fresh produce. In 2022, through awareness sessions by PSI, the women learned about the importance of dietary diversity, traditional seed conservation, and cultivating multiple local vegetables. This inspiration led

33| Women Who Grow the Future: The Story of Maa Kalika Seed Bank

to the formation of the Maa Kalika Women's Seed Bank, a collective of ten women committed to preserving native seeds and strengthening community nutrition. Guided by PSI, they adopted seed-saving techniques, improved their kitchen gardens, and began sharing knowledge across the village. Today, the group stands as a symbol of women-led agroecology and community-driven resilience.

SEED STORY

The seed conservation journey of the Maa Kalika group began when the women realised that nutritious vegetables were becoming scarce and expensive, and many traditional varieties had nearly disappeared from their village. With PSI's initial seed support and training, each woman learned to identify healthy "mother plants," select ripe vegetables, and carefully extract and shade-dry seeds to ensure high germination rates. They revived local varieties of bhindi, lauki, kaddu, kutki, barbati, palak, and bheda—crops once common in household diets but gradually replaced by market varieties.

Using traditional preservation methods, such as mixing seeds with ash, storing them in earthen pots, and applying cow dung or urine to containers, the women ensured the long-term viability of their seeds without the use of chemicals. Every member contributes seeds to the collective bank, which maintains labelled storage containers and simple registers for seed entry and rotation.

Group leader Kavita Rani summarises their motivation: "Apni sehat aur poshan hum khud sudhaar sakte hain." Their renewed pride in self-grown seeds has strengthened food security and restored lost biodiversity at the household level.

IMPACT

The Maa Kalika Women's Seed Bank has significantly improved nutrition in Shahpur Khurd by enabling families to grow 10–16 varieties of vegetables year-round. Women save Rs. 300–500 each season by avoiding market-bought seeds and lowering daily expenses through growing their own vegetables. Improved access to chemical-free, diverse produce boosts immunity and improves digestive issues. The revival of indigenous crops has strengthened on-farm biodiversity and reduced dependence on external markets. Leadership roles within the group have built confidence, unity, and decision-making power among women, positioning them as custodians of community resilience.

Name of farmer:	**Nilima Swargiary**
Location:	Kharua Village, Baksa District, Assam
Contact Details:	7637064181
Seeds Conserved:	**Paddy (Bahadur), leafy vegetables (Lai, Lafa, Suka), mustard, sesame, pumpkin, papaya, bottle gourd, brinjal, roselle leaf, chilli**

BACKGROUND

Nilima Swargiary, 52, is a committed seed custodian from Kharua village in Baksa district, Assam. Raised in a Bodo household where women traditionally preserved seeds for future seasons, she grew up observing her mother and grandmother safeguard indigenous paddy and vegetables. As hybrid seeds increasingly entered the village, she witnessed a rapid decline in local varieties and a gradual erosion of cultural food traditions. Motivated to protect her community's heritage and ensure a reliable supply of seeds for her joint family of eight, Nilima revived traditional storage practices. Over time, she became known

34| Nilima Swargiary – Preserving Bodo Heritage Through Traditional Seed Wisdom

for her precision and skill in storing seeds in earthen pots—a low-cost, chemical-free, climate-resilient method deeply rooted in Bodo tradition and increasingly valued in her community.

SEED STORY

Nilima began conserving seeds in 2015, after realising that many of the paddy varieties her grandmother had grown had vanished from their fields. A year of poor harvest—caused by pest attacks on hybrid seeds—reinforced her belief in the resilience of traditional varieties. Determined to revive them, she collected old seed samples from relatives, elderly farmers, and weekly village haats. She now conserves the Bahadur paddy variety along with ten traditional vegetable seeds, including lai xaak, dhekia, okra, suka, papaya, pumpkin, and bottle gourd, as well as two pulse varieties.

Her signature practice is the use of earthen pots and plastic bottles for seed storage. After carefully sun-drying seeds, she mixes them with neem leaves or ash and stores them in airtight clay pots. This method maintains viability for 8–12 months and protects against pests in Assam's humid conditions.

Although she initially faced difficulties finding pure seeds and adequate storage space, training sessions under the SuATI project, organised by GVM, GIZ, KVK, and the Agriculture Department, strengthened her seed selection skills. Today, she actively collaborates with SHGs to promote traditional storage methods.

IMPACT

Nilima's work has strengthened local seed sovereignty in Kharua village by reintroducing indigenous varieties to more than twelve households. Her earthen-pot storage method has encouraged many women to adopt this eco-friendly, low-cost practice, thereby reducing dependence on chemically treated market seeds. Her home now functions as a small community seed bank where neighbours regularly borrow and exchange seeds. By prioritising traditional crops, she has diversified her family's diet, improved household food security, and lowered cultivation costs. Her efforts significantly contribute to preserving the Bodo agricultural heritage and enhancing biodiversity in the Barama region of Baksa district.

Name of Farmer: **Dwipen Rabha**
Place: Hatigaon, Suarmari, Agia, Goalpara District, Assam
Seeds Conserved: **Okra, sponge gourd, mustard green, Pothoria paddy, Joha paddy, Bora paddy, pumpkin, bottle gourd, cucumber, ash gourd, Mestatenga, millet, sesame, papaya, beans (15 traditional varieties)**

BACKGROUND

Dwipen Rabha, 53, is a dedicated farmer from the Rabha tribal community in Hatigaon village, Goalpara district. For more than twenty years, agriculture has been his primary livelihood, cultivating paddy and vegetables across 2.5 bighas of his own land and an additional three bighas on lease. Seed conservation is not new to him—it is a legacy passed down from his grandfather, deeply woven into his family's farming tradition. As many villagers shifted toward hybrid and HYV seeds, Dwipen witnessed increasing soil degradation, rising input costs, and concerns about food quality.

35| Dwipen Rabha – Guardian of Rabha Heritage Seeds in Goalpara

These changes strengthened his resolve to continue preserving the indigenous varieties his ancestors entrusted to him. Today, he is recognised for safeguarding the region's diverse food plants and promoting climate-resilient traditional seeds.

SEED STORY

Although seed preservation has been practised in his family for generations, Dwipen began formally conserving indigenous seeds over two decades ago. His commitment deepened when he observed that HYV seeds demanded costly inputs and weakened soil health. Motivated to protect both ecological balance and cultural heritage, he devoted himself to preserving the traditional seeds that his ancestors had cultivated.

He now conserves fifteen indigenous varieties, including Pothoria, Joha, and Bora paddy, along with okra, sponge gourd, pumpkin, cucumber, mustard green, ash gourd, sesame, millet, papaya, and Mestatenga. Dwipen follows traditional Rabha preservation methods: okra is dried over kitchen smoke, cucurbits are stored in bamboo tubes, leafy greens and sesame are sun-dried and kept in tokra baskets, beans and papaya seeds are tied in cotton cloth, paddy is bundled with straw, and millet is stored in jute or plastic bags.

Early challenges included low market demand, farmer reluctance, and lower yields compared to HYVs. His work gained new momentum through the NMNF Agriculture initiative and SuATI project, which established a Raised Bed Community Seed Nursery in Hatigaon. Training, tools, and seed support significantly improved seed quality and boosted demand for indigenous seedlings.

IMPACT

Dwipen's work has revitalised agro-biodiversity in Hatigaon and neighbouring villages. Using his own seeds has reduced dependency on external markets and lowered input costs, while his farm now serves as a model for natural, chemical-free cultivation. The Raised Bed Community Seed Nursery has created new livelihood opportunities, increasing his household income through the sale of indigenous seedlings. Traditional varieties conserved by him have enhanced climate resilience and supported sustainable farming in the region. Through regular seed exchanges with farmers and relatives, he strengthens community seed sovereignty and ensures the survival of indigenous varieties for future generations.

Name of Farmer: **Sangeeta Boro**
Place: Balijuri Village, Chhaygaon Block, Kamrup (Rural), Assam
Seeds Conserved: **Punpuni Joha Dhan (Aromatic Indigenous Paddy)**

BACKGROUND

Sangeeta Boro, a smallholder farmer from the Bodo community of Balijuri village, comes from a lineage where seed preservation and traditional rice cultivation are deeply tied to culture and identity. She cultivates 17 bighas of land—7 bighas owned and 10 bighas leased—where Joha, the fragrant indigenous paddy variety, has always held special significance. Over the years, however, Joha rice began to disappear from the village due to erratic weather, declining soil fertility, and the spread of hybrid varieties. When the SuATI project introduced natural farming interventions, Sangeeta emerged as one of the earliest and most enthusiastic participants. Motivated to restore her community's traditional food heritage, she adopted soil-friendly,

36| Reviving Fragrance and Heritage: The Joha Custodian of Balijuri

chemical-free practices. Her commitment to seed revival and agro-ecological farming has made her a respected custodian of Joha paddy and an inspiration to women farmers in the region.

SEED STORY

Sangeeta began conserving Joha paddy seeds three to four years ago, when she realised that pure local seed stock had become scarce in her village. Determined to preserve this culturally significant variety, she saved a small quantity of seeds and multiplied them gradually across seasons. Her approach combines traditional Bodo seed-saving wisdom with natural farming techniques, including selecting the healthiest panicles, sun-drying them on bamboo mats, treating the seeds with Beejamrit, and storing them in bamboo or earthen containers to preserve purity, aroma, and viability.

In the 2025 Kharif season, she cultivated three bigha of Joha and harvested around 24 mon (960 kg) of high-quality aromatic paddy—significantly higher than previous years. The strong production and premium market value encouraged her to package and sell directly through Pratishruti Pure Pvt. Ltd., with support from the project team and the FPC.

Her early challenges included limited seed stock, pest pressure, and poor soil health. Through regular training in bioinputs such as Jeevamrit and Neemastra, as well as mulching, seed treatment, and improved drying methods, she overcame these constraints and strengthened her seed line. Sangeeta now collaborates with women farmers and the FPC to expand Joha paddy cultivation and seed distribution.

IMPACT

Sangeeta's conservation of Punpuni Joha Dhan has revived a culturally important rice variety in Balijuri while improving food security and climate resilience. By using indigenous seeds and natural inputs, she reduced cultivation costs and improved soil health, creating a model for sustainable paddy farming. Her Joha paddy now attracts premium local demand, adding to household income and motivating neighbouring farmers to return to traditional varieties. Through seed sharing, hands-on demonstrations, and training sessions, she has strengthened community seed sovereignty and empowered women to adopt eco-friendly, low-cost farming practices rooted in Bodo heritage.

Name of Farmer: **Getmorin Sangma**
Place: Balijuri Village, Chhaygaon Block, Kamrup (Rural), Assam
Seeds Conserved: **Punpuni Joha Dhan (Aromatic Indigenous Paddy)**

BACKGROUND

In the hill–border landscape of the Assam–Meghalaya region, where the Garo community preserves deep agricultural traditions, seeds hold both cultural and ecological significance. Ms Getmorin Sangma, a farmer from Hahim village, embodies this legacy. Managing a 10-bigha diversified farm, she cultivates traditional paddy, maise, root crops, vegetables, and pulses—many of which are adapted to Jhum-based farming and changing climatic patterns. Over time, she struggled with declining seed purity, germination issues, and lack of access to reliable indigenous seed sources.

Through the SuATI project, Getmorin received training in seed treatment, storage,

37| Seeds of the Hills: Getmorin's Maize Heritage Conservation

and natural farming practices that utilise neem leaves, ash, turmeric, and cow's milk. These learnings helped her revive seed quality and strengthen production in her homestead garden. Today, she is recognised as a community asset who supports farmers across the village with seeds, knowledge, and guidance on climate-resilient, diversified farming.

SEED STORY

Maize is the core focus of Getmorin's seed conservation efforts, carrying cultural, nutritional, and agronomic value within Garo households. Her practices, refined across generations, reflect a deep understanding of climate, storage ecology, and ritual-based stewardship. At harvest, she selects only healthy, pest-free cobs with uniform grain formation and appropriate colour and hardness. These are tied into bundles, marked separately, and sun-dried on bamboo mats for 5–7 days. During unexpected rains, she protects the cobs with banana leaves or tarpaulin.

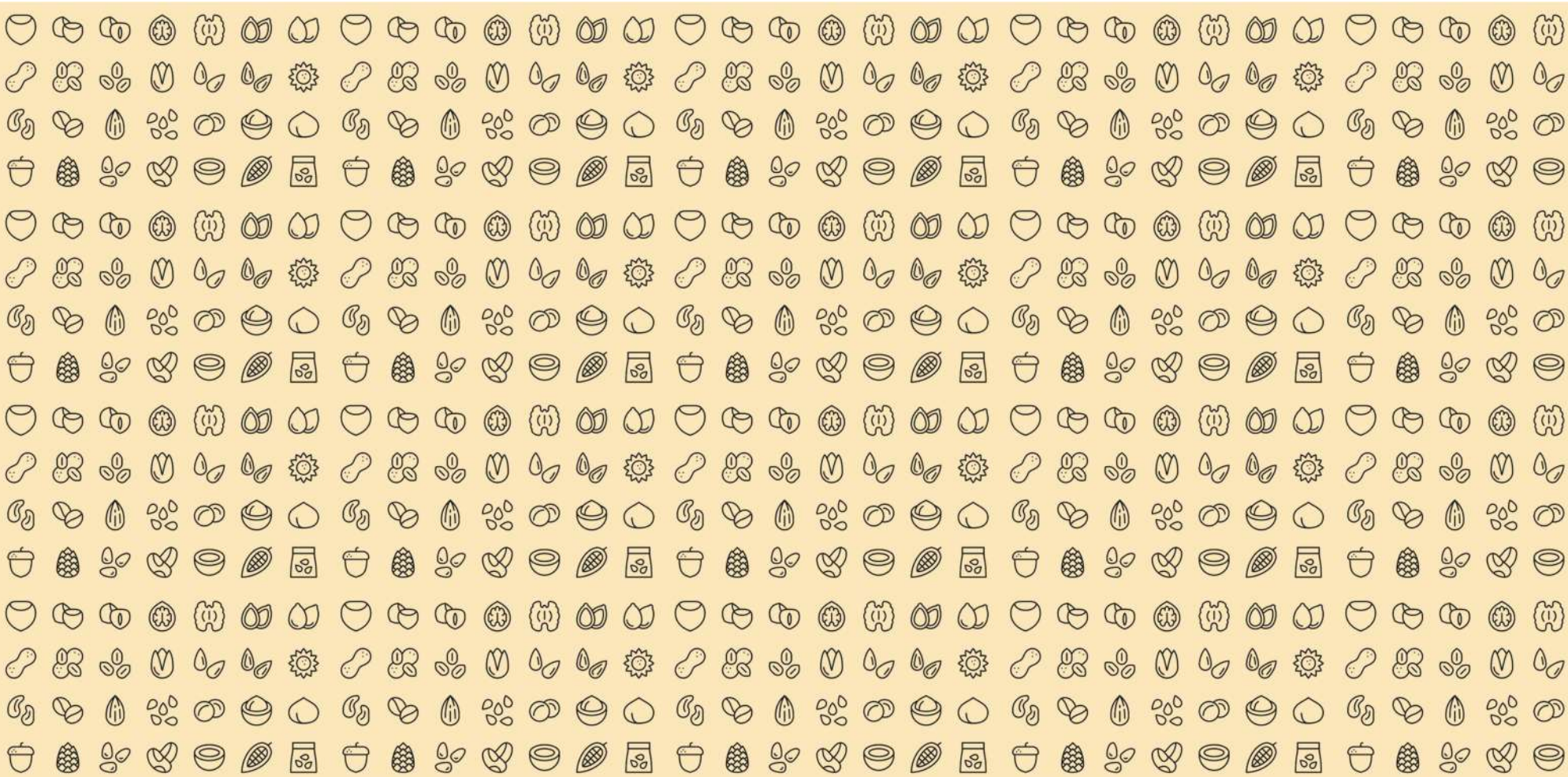
A signature technique of the Garo community—smoke-drying—is central to her method. She hangs maise cobs above the hearth in the traditional kitchen (nok-achik), allowing gentle smoke to cure and dry them. This naturally repels insects and rodents, enabling safe storage for 6–12 months. For long-term preservation, she uses bamboo baskets, clay pots, gourd containers, and elevated platforms (machang), layering seeds with ash, neem leaves, or turmeric.

Seed exchange, cultural rituals, and traditional blessings reinforce her conservation efforts, ensuring that local maise varieties and knowledge systems continue to flourish.

IMPACT

Dwipen's Getmorin's work has revitalised indigenous seed diversity in Hahim and neighbouring Garo settlements. By preserving local varieties and adopting natural storage methods, she has reduced her dependence on hybrid seeds and strengthened the climate resilience of village farmers. The improved germination and purity of her conserved seeds have enabled households to diversify crops and lower cultivation costs. As a resource person in SuATI activities, she trains women farmers, promotes mixed cropping, and encourages seed independence.

Through ongoing seed sharing and community exchanges, she safeguards Garo agricultural heritage and ensures the continuity of traditional farming knowledge.



DISCLAIMER

This compilation is based entirely on the content, experiences, and information shared directly by the respective farmers. The narratives, practices, and claims presented in this book reflect the farmers' own knowledge, observations, and lived realities.

The Department does not take responsibility for the accuracy, verification, or scientific validation of the information provided by the contributors. The material is published as shared, with the intention of documenting and highlighting community-led conservation efforts, traditional wisdom, and on-ground practices.

Published By

Department of Agriculture

Government of Karnataka