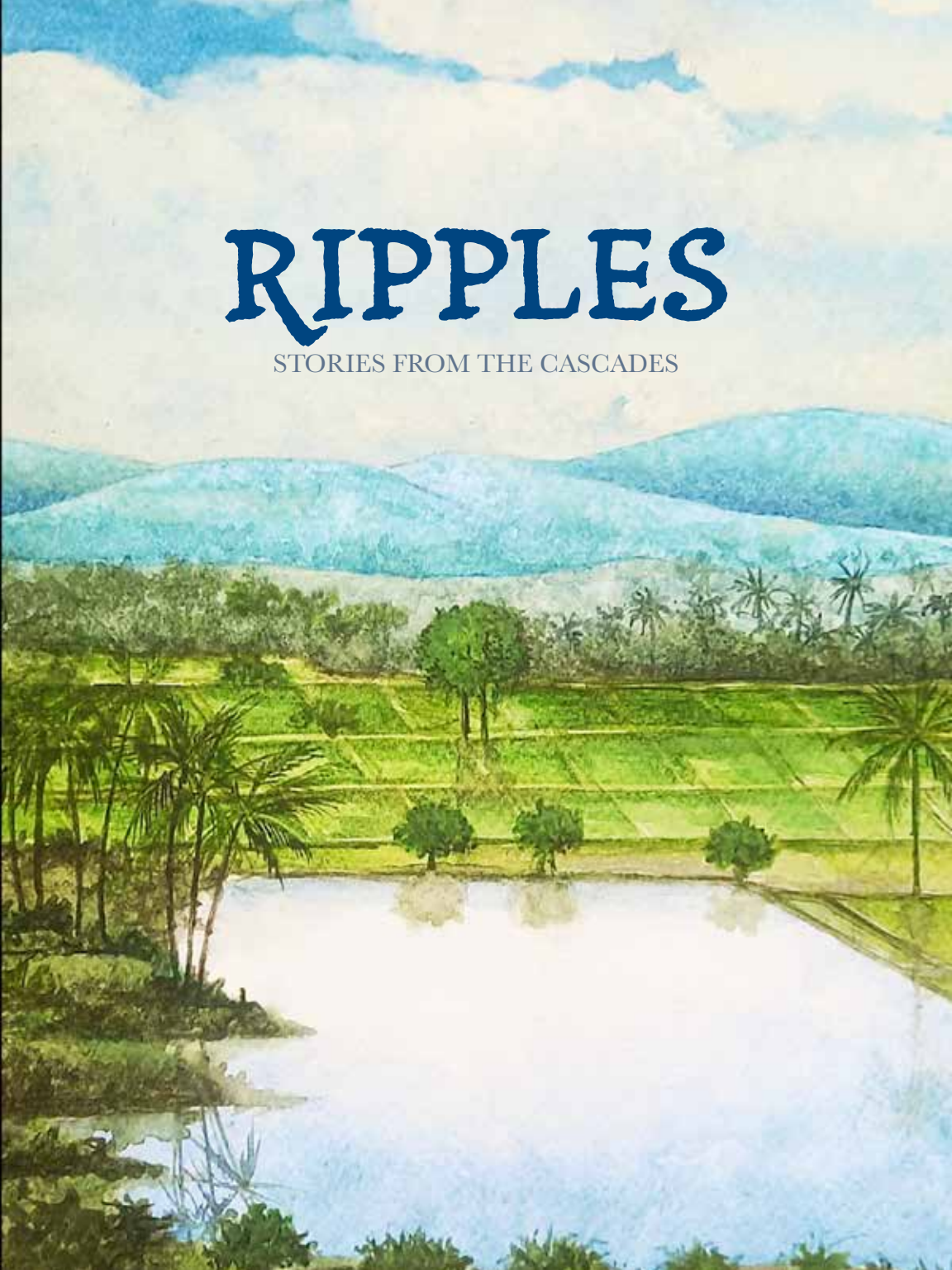
RIPPLES

STORIES FROM THE CASCADES



RIPPLES

STORIES FROM THE CASCADES



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காலநிலை மாற்றத்தினை தாக்குப்பிடிக்கும் ஒருங்கிணைந்த நீர் முகாமைத்துவக் கருத்திட்டம்
CLIMATE RESILIENT INTEGRATED WATER MANAGEMENT PROJECT (CRIWMP)

Disclaimer: This publication was commissioned through the Green Climate Fund supported Climate Resilient Integrated Water Management Project (CRIWMP) for the specific purpose of documenting the human stories and lived experiences of beneficiaries over the seven-year implementation period of the project. The content is based on interviews conducted by the United Nations Development Programme (UNDP) in Sri Lanka and reflects the voices, perspectives, and changes observed in the lives of individuals and communities impacted by CRIWMP.

In addition to beneficiary narratives, the information and stories presented in this publication are also informed by the insights and experiences of project staff and civil society organisation (CSO) personnel who were directly involved in implementing the project across its duration. Their contributions have helped shape a more comprehensive understanding of the project's impact and context.

All opinions and views expressed in this publication are derived from these collective observations and are reflective of the socio-environmental context within which the project was implemented. The findings, interpretations, and recommendations presented do not represent the official positions of the Green Climate Fund (GCF), the UNDP, or any UN Member States represented on its Executive Board. They are also not necessarily endorsed by the individuals or institutions acknowledged or cited.

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Acknowledgements

This compilation of stories is a tribute to the power of vision, partnership, and community empowerment. It captures not only the milestones of the CRIWMP, but also the spirit of the people and institutions who made it possible.

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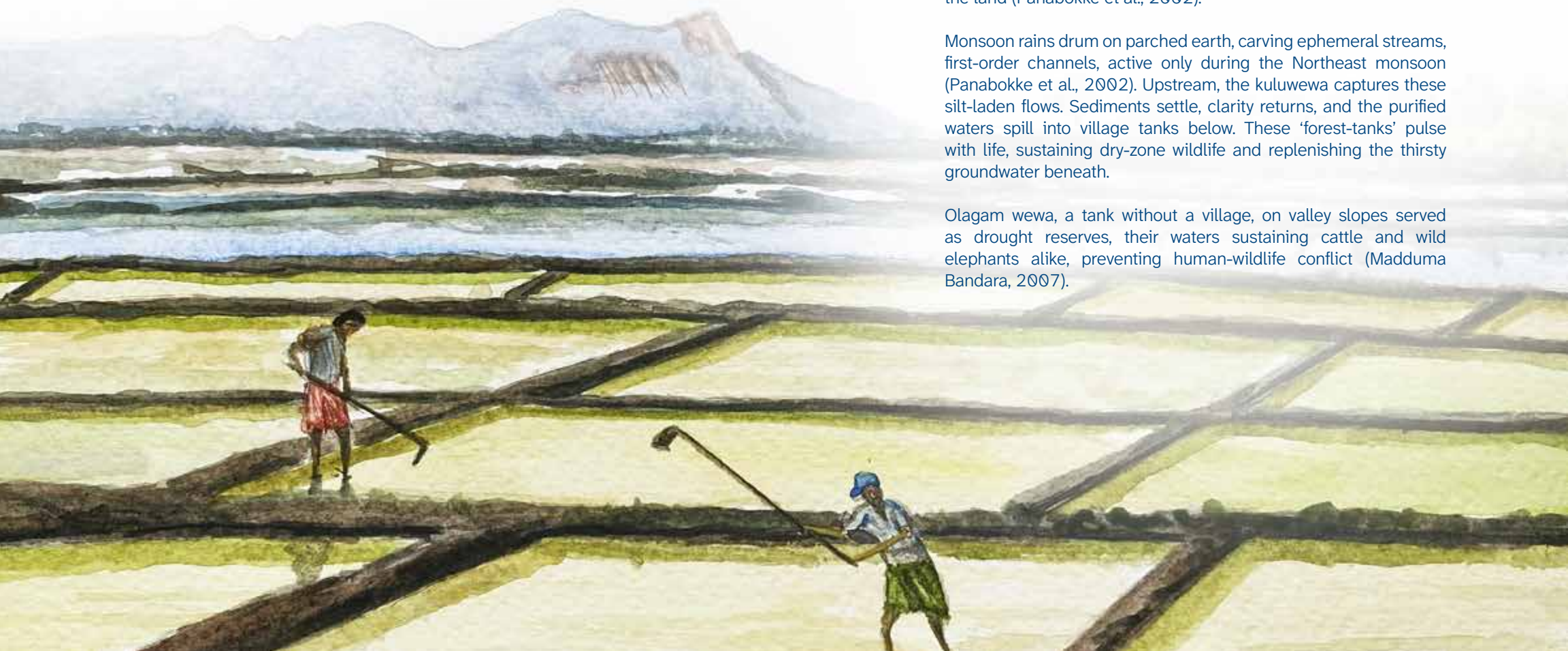
Most importantly, we thank the communities who opened their homes, shared their struggles, and embraced this project with trust and determination. Your stories of resilience—of women no longer walking for water, farmers reviving barren land, and villages reclaiming their future—are the soul of this book. You remind us that true transformation begins when people lead the way.

Finally, to all those whose names do not appear here but whose contributions made this journey possible—thank you. May these stories inspire continued collaboration in building a more water-secure, climate-resilient world.

The Cascades: A Symphony of Water, Land, and Life

For over two millennia, Sri Lanka's Dry Zone has thrived under the watchful embrace of an ancient hydraulic marvel—the tank cascade system. A testament to human ingenuity and harmony with nature, these interconnected reservoirs and channels are more than mere infrastructure; they are the songs of a civilization that learned to dance with the rain.



An Ancient Legacy Written in Water

The story begins in the valleys of the Dry Zone, where early settlers, armed with little more than iron tools and keen observation, transformed barren landscapes into fertile oases. By 300 A.D., over 150 tanks dotted the land; by 1300 A.D., that number swelled to 15,000 (Siriweera, 2001). These were no haphazard constructions, but scientifically placed storages, nestled in small watersheds, each tank spilling into the next, guided by the gentle, natural contours of the land (Panabokke et al., 2002).

Monsoon rains drum on parched earth, carving ephemeral streams, first-order channels, active only during the Northeast monsoon (Panabokke et al., 2002). Upstream, the kuluwewa captures these silt-laden flows. Sediments settle, clarity returns, and the purified waters spill into village tanks below. These 'forest-tanks' pulse with life, sustaining dry-zone wildlife and replenishing the thirsty groundwater beneath.

Olagam wewa, a tank without a village, on valley slopes served as drought reserves, their waters sustaining cattle and wild elephants alike, preventing human-wildlife conflict (Madduma Bandara, 2007).

Along the shorelines, the gas-gommana (tree belt) stands. Lofty Kumbuk, Damba & Palu trees shield the tank, their canopies diffusing the sun's glare and the strong winds, cooling the tank waters, and slowing evaporation. Their roots stabilize bunds while creating nurseries for fish (Geekiyanage & Pushpakumara, 2013). The perahana, a reed filter, made of meadow grass-like plants & shrubs, filters silt while their roots oxygenated water.

At the cascade's hydrological heart, the largest tank, the maha wewa, stands as a sentinel, its broad expanse positioned deliberately at the lowest elevation to collect and store the drainage and spill waters from upstream reservoirs (Sakthivadivel et al., 1997). This carefully engineered hierarchy, where tank sizes increase progressively downstream, reveals the sophisticated understanding of hydrology possessed by Sri Lanka's ancient builders. More than a reservoir, it sustains the entire village: crops flourish, medicinal plants thrive, and traditions endure around its shores, while its waters shelter the dry zone's rich biodiversity.

Below each tank bund lies the kattakaduwa, the interceptor. This buffer zone filters soluble salts and ferric iron from reaching paddy fields, while its yathuru wala (water hole) raises groundwater to minimize seepage. To villagers, this interceptor provides medicine, timber, fruits, and farming materials.

During monsoons, this hydraulic network transforms into a living organism. Spillways sing as they release excess flows; their waters channeled through carefully graded slopes to nourish the next tank in the sequence. In drier months, the same empty channel beds; cracked and sunbaked, become grazing grounds for cattle.

The system functions as a unified watershed, with each cascade draining into a third or fourth-order stream (Sakthivadivel et al., 1997), defined by the contours of the land itself. Clusters of these cascades form sub-basins (Sakthivadivel et al., 1996), and these in turn weave together into the grand tapestry of river basins (Panabokke, 2009), a nested system of integrated water management scaled perfectly to the Dry Zone's terrain.

The genius lies in the details: the way the tanks' placement leverages the impervious basement rock to minimize seepage, or how their spillways are calibrated to handle peak flows without breaching. Modern hydrologists would later recognize this as a "regulating technique developed over time from the experience of peak flows with available technologies" (Perera et al., 2020)—but for the farmers who depended on these systems, it was simply the rhythm of survival, written in water and earth.

Kiralabokka Wewa

The Rhythm of Resilience

Water allocation followed an ancient moral code: drinking first, livestock second, crops last (Panabokke, 2009). During scarcity, communities practiced bethma—redistributing fields so none were left barren—and kekulama, dry-sowing seeds with the first rains to stretch every precious drop (Dharmasena, 2019).

The system's genius lay in its reciprocity. Downstream reservations of salt-tolerant reeds filtered toxins from bund seepage, while drainage canals carried both water and nutrients to distant fields (Ratnayake et al., 2021).

This was no accident, but a carefully managed equilibrium where human needs balanced with ecological function, what Dharmasena (2019) calls "an ecosystem where water and land resources are organized within the micro-catchments of the dry zone landscape, providing basic needs to human, floral, and faunal communities through water, soil, air, and vegetation with human intervention on sustainable basis." From the soil ridges that slowed erosion to the dead storage maintaining well water levels during drought, every element sustained the whole.

A Legacy for the Future

For centuries after the decline of Sri Lanka's hydraulic civilization, the cascades' wisdom lay dormant. Their hydrological genius was obscured by colonial interventions that prioritized infrastructure over integrated water management (Kennedy, 1993). Early attempts at revival stumbled without scientific data, until pioneers like Arumugam (1969) and Ponrajah (1984) began decoding the cascades' secrets through hydrological analysis of small catchments.

The true breakthrough came when researchers like Itakura and Abernethy (1993) shifted focus from individual tanks to entire cascades, revealing the symphony between the hydrological connectivity and the socio-economy. Building on the foundational insights of Panabokke & Tennekoon, whose seminal work illuminated the ecological and cultural logic of Sri Lanka's tank cascades, this revelation was later quantified through Jayatilake & others' (2001) water balance models of the Thirappane cascade. These studies proved what ancient builders knew intuitively: that cascades function as nature's climate regulators, creating resilient watersheds capable of withstanding extreme weather and balancing human needs.

Today, as climate change intensifies droughts and deluges, further research like Water Evaluation and Planning (WEAP) models analysing water balances under shifting climate scenarios (Imbulana & Manoharan, 2020), and a cascade water balance simulation model revealed vulnerabilities in smallholder agriculture. CRIWMP builds on this legacy. By merging modern science with traditional knowledge, the project sought to revive the cascades' original covenant between people and nature.

Wellihiddawa Wewa

CRIWMP has sought to ensure that the cascades' lesson endures. That true resilience comes not through dominion over nature, but through symbiotic coexistence. This wisdom manifests in the transformation of cracked earth into fertile wetland with the rains' return, in the careful consideration of the water shared between village and wildlife, and in the ancestral knowledge passed through countless seasons of plenty and scarcity.

CRIWMP hopes that this core truth remains: the cascades are more than engineering. They are a covenant between people and nature, written in the language of the dappled shade of a kumbuk tree, sun-warmed soil, and water—always water—flowing from tank to tank, generation to generation.

Mottapeththawa Wewa

Ihalakiule Wewa

WATER, RESILIENCE, AND HOPE IN SRI LANKA'S DRY ZONE

"Sri Lanka is not a water-scarce country, it is a water rich country. It is just that we have failed to take an integrated approach to managing our water resources. There are three distinct climatic zones in Sri Lanka: the Dry Zone, the Intermediate Zone and the Wet Zone. In the Dry Zone, livelihoods are for the most part agriculture or livestock—enterprises that are extremely water-reliant. But rainfall comes only three months a year, and livelihoods depend on it for twelve." – Asoka Ajantha, Technical Specialist – Water Resources & Project Manager - CRIWMP, UNDP in Sri Lanka.

This is the reality of the Dry Zone, Sri Lanka's agricultural heartland, and home to the country's most vulnerable populations. Ancient tank cascades—once marvels of genius hydraulic engineering—now lie dilapidated. Farmers look to the skies for the rain to come, watch as droughts wither their crops, only for floods to wash away the rest. Women and children walk further each day to fetch drinking water, while men succumb to a mysterious kidney disease—one whispered to rise from relentless heat stress on their kidneys, worsened by dehydration as thirst goes unquenched in the struggle for clean water.

The intricate balance between people, land, and water has long been washed away.

This is not just a story about climate change. It is a story of systems. Of fragmented water management, vanishing traditional knowledge, and of short-term fixes that have left communities fighting for survival. But it is also a story of revival.

CRIWMP was born from a radical idea: What if, instead of patching cracks, we restored the entire foundation?

Guided by the wisdom of ancient cascade systems and modern science, CRIWMP took a three-pronged approach, in three of the most vulnerable river basins—Mi Oya, Yan Oya & Malwathu Oya, across the seven districts of Anuradhapura, Polonnaruwa, Kurunegala, Puttalam, Vavuniya, Trincomalee and Mannar. This approach sought to safeguard the lives and livelihoods, health and wellbeing, and rebuild resilience among the most climate-vulnerable populations of Sri Lanka.

1 Restoring Cascades, Reviving Ecosystems

At the heart of CRIWMP lies the revival of Sri Lanka's ancient tank cascade systems. Not simply as irrigation channels, but as integrated lifelines connecting water, agriculture, and community resilience. Decades of neglect had left these village irrigation systems (VISs) fractured, but CRIWMP approached their restoration with a dual vision: climate resilience and systemic renewal.

- **Infrastructure with Intelligence:** Drawing on proven methods from past initiatives, the project upgraded 325 VISs across 20 cascades—strengthening embankments and adding climate-smart design features. These upgrades weren't imposed from afar; they were co-designed with water users, including Farmer Organizations (FOs), local technicians, and specifically, women to ensure ownership and longevity.

- **Beyond the Infrastructure:** Restoration wasn't limited to tanks. Guided by the hydraulic acumen of Serendib's ancestors, water holes, interceptors, tree belts, soil ridges and more revived the entire landscape, ensuring rains replenished the catchments and the groundwater rather than eroding the topsoil.

- **Multi-Use by Design:** CRIWMP prioritized dual-purpose water systems, aligning agricultural and domestic needs from the outset. By weaving safe water standards into cascade development and management, the project improved irrigation efficiency, safeguarded watersheds, reducing contaminants and expanding access to clean water.

- **Resilience from the Ground Up:** To ensure that farmers could keep up with the changing climate and face climate shocks, climate-smart agriculture practices were embedded across the seven districts. CRIWMP armed the farmer communities with on-farm and off-farm water management, climate resilient crops & cultivation approaches, soil conservation techniques, and linkages to better markets. CRIWMP introduced plot consolidation—yāya programmes—and techniques like laser levelling, alternate wetting & drying, and new ways of farming to increase cropping intensity. Women farmers were transformed into micro-small enterprises, supplementing the adaptation benefits brought about by the cascade revival.

2 Water for Life

In Sri Lanka's Dry Zone, the line between irrigation water and drinking water has always been blurred, but climate change has turned this delicate balance into a crisis. As droughts intensified and floods contaminated reservoirs, families faced an impossible choice: risk disease from polluted wells, walk miles to fetch water, or buy water from private vendors. For women, this burden stole hours each day; for children, it meant missing school; for CKDu-affected communities, it was a matter of life and death.

CRIWMP confronted this challenge with:

- **Reviving Abandoned Systems:** The project revitalized abandoned Community Water Supply Schemes (CWSS) by introducing Advanced Water Purification Systems in areas where water quality had severely deteriorated due to climate change, leading to irreversible groundwater contamination. These interventions focused on CKDu-vulnerable hotspots, ensuring safe drinking water for affected communities. These efforts were not temporary fixes but sustainable social enterprises. The schemes, managed by women-led CBOs, provide clean water at a nominal fee, with revenues reinvested into system maintenance and support for vulnerable households.

- **Safe Water, Safe Futures:** CRIWMP stepped in with small-scale advanced filtrations systems for especially vulnerable schools and health centers. In communities battling water scarcity, poverty, and the silent threat of CKDu, these systems offered peace of mind, and a chance for healthier tomorrows with access to safe drinking water.

- **Rain to Tap:** Rainwater harvesting systems captured monsoon rains, ensuring a reliable source of safe, high-quality water for drinking and cooking. Groundwater recharging wells ensured water reserves for the dry seasons by replenishing aquifers. These rainwater harvesting systems were also installed in remote communities and small schools with limited student populations to meet their drinking water requirements. Crucially, these worked in tandem with rehabilitated cascades, as healthier watersheds meant cleaner groundwater recharge.

- **Partnerships in Action:** CRIWMP brought clean water closer to home. With the community leading the way and the National Water Supply and Drainage Board (NWSDB) offering technical support, pipeline extensions were laid to reach rural households, a community effort rooted in ownership and built to last.

- **From Reactive to Preventive:** Beyond the filters, the project tackled contamination at its source. Water safety plans guided communities and CBOs in identifying risks and enforcing safeguards. Training sessions turned local communities into frontline guardians,

ensuring climate resilient safe drinking water. Groundwater management plans and water quality surveillance at the cascade level monitored pollutants from runoff, linking water quality to climate-smart agriculture.

- **Built In Gender Equity:** By placing women at the helm of water management, the project turned a daily chore into a dignified livelihood. Female operators gained incomes; households saved 4–6 hours daily; girls returned to classrooms.

3 Climate Information for Life Decisions

In the Dry Zone, a farmer's gamble on the rains could mean the difference between harvest and hunger. For generations, they relied on ancestral almanacs. But climate change had rewritten the rules. Droughts arrived earlier; floods struck harder; the old signs no longer held. CRIWMP recognized that resilience begins with seeing the storm before the clouds gather.

- **Climate Intelligence:** The project deployed weather stations and hydrological monitoring across river basins, creating a neural network for climate data. The data is fed into the Department of Meteorology and the Irrigation Department for analysis and climate modelling, forecasting how each drop would cascade through tanks, fields, and wells.

- **Bridging the Last Mile:** Tailored agro-met advisories, co-developed by district-level government agencies—delivered via WhatsApp groups, radio broadcasts, SMS alerts, and village loudspeakers—transformed raw data into actionable information. Farmers learned when to plant, when to fertilize, when the rains will come, when to release tank water, and crucially, when to hold back.

- **Institutionalizing Agro-Met Innovation:** CRIWMP developed co-development guidelines for agro-met advisories, ensuring that this collaborative, district-led approach becomes a sustainable and replicable model across regions.

Why This Story Matters

CRIWMP is more than a project; it is proof that even the deepest crises can be reversed when communities lead the way. The stories in this book are not just about infrastructure or techniques; they are about farmers who turned one harvest into three, fishermen who turned waste into wealth, women who became entrepreneurs, and villages that defied climate change. Most of all, they are about hope. And the unshakable resilience of Sri Lanka's own, who, with just a little support, are rewriting their future.

From Ritual to Reason

Science meets tradition in Gomarankadawala

Beneath a whispering canopy of trees, on a weathered tank bund bookended by two ancient boulders, a small group of farmers gather as the day softens into evening. The fading light spills through the leaves in golden fragments; a twilight breeze stirs the air. Plastic chairs form a loose circle. A thermos of tea rests on a makeshift table, its milky steam curling into dusky air. Here, with the still waters of the Thirappane tank beside them, and the lush paddy fields stretching downstream on the other side, fed by those same life-giving waters, standing as silent witnesses, the farmers of Gomarankadawala shares their story.

This scene is a microcosm of Sri Lanka's ancient relationship with rice and water—a bond that has built and destroyed kingdoms, and shaped culture and faith for over 2,500 years. Rituals to invoke rain and blessings for a bountiful harvest still echo in the dry zone, and the wisdom of generations guides how farmers cultivate their fields and manage the ancient tanks that sustain them.

"We use the AWD to know the acre-foot measurement—we can plan what percentage of our total acreage we can farm," explains R. S. Mala Malkanthi. "We had never received knowledge like this before."

R. S. Mala Malkanthi

Yet, as the climate crisis tightens its grip, tradition alone is no longer enough.

Gomarankadawala stands as one of CRIWMP's most telling successes. Not just for upgraded irrigation systems, but for how completely its people have reimagined their relationship with water. Where conflict once simmered over every drop, now there is careful stewardship.

E. P. Ranjith Nissanka, the wel vidane, the Thirappane tank's water manager and the Farmer Organization's (FO's) Secretary, embodies this shift. "Now I sometimes give the key [sluice gate control] to people and say I have to go somewhere, and ask them to help with the water release," he shares, shaking his head in quiet amazement. "I come back and check the records... and find they haven't opened the gates at all. They've checked the agro-met advisory and the Alternate Wetting & Drying (AWD) system measurements first. These are the same people who used to waste water and fight with me over every release."

The system works because knowledge has truly been shared. "We use the AWD to know the acre-foot measurement—we can plan what percentage of our total acreage we can farm," explains R. S. Mala Malkanthi. "We had never received knowledge like this before."

The journey here began at rock bottom. Rainfall patterns are changing; water is scarcer than ever. The necessity to manage water, and to incorporate new technology and agricultural practices in to cultivating paddy and other crops is becoming paramount. "In 2020, we had reached a critical point, there was no water in the tank. We didn't know what to do," recalls Mala. "As a last resort, we did an ancient ritual. We brought a statue of lord Ganesha from our local temple and bathed it in the paddy field. We were praying for rain." Prayer has since been joined by planning. Farmers now consult the agro-met advisory religiously, their phones buzzing with weather forecasts that guide planting schedules and releasing of water.

"It's quite amusing," says one farmer chuckling. "So many people from nearby villages who weren't beneficiaries of the project, who don't have the agro-met advisory, reach out to us for weather forecasts. It's so useful to have accurate weather information."

Manoj Karunathilake

“It’s quite amusing,” says one farmer chuckling. “So many people from nearby villages who weren’t beneficiaries of the project, who don’t have the agro-met advisory, reach out to us for weather forecasts. It’s so useful to have accurate weather information.”

These seeds of change extend to the fields themselves. Tradition runs deep, and scepticism runs deeper. Changing beliefs, values and a tradition so ancient is a herculean task. It is a task that can only be achieved through examples and results. Where broadcasting techniques once consumed 75-80 kilos of seed paddy per hectare, parachuting slashes that to just 12-15 kilos. “It was an arduous task,” admits Manoj Karunathilake, Social Mobiliser, from Janathakshan GTE Ltd. “We sowed four plots with four different techniques, side by side. The farmers needed to see the results for themselves.” And when they did, the proof was undeniable. Parachuting emerged as the most efficient method, followed closely by the seeding machine.

What cemented the change was human connection. “What really made us believe in this project and embrace the technologies and techniques we were being taught, were the project officers and their dedication. They had no hesitation to get into the mud with us and show us how things were done. They really believed in the technologies and the new ways of farming that they were showing us. That made us believe, as well, says another farmer.

The truest measures of successes are personal. “Last week one of our farmers came to visit me. He had pawned his wife’s gold chain to cultivate last season. He had earned 200,000 rupees with just a portion of his harvest; he has now settled his debts and brought the receipt to show me. It was heartwarming for me to see his pride and sense of independence. This was in the yala season, he is already getting ready for the next season now,” says Manoj.

As night falls over the tank, a profound truth lingers: Gomarankadawala’s farmers no longer wait helplessly for the monsoons. They are ready, whether the monsoons come or not. The paradigm shift is undeniable. Where water scarcity once bred arguments between brothers, now there is unity. Where fields were once flooded to the brim in ignorance, now every

E. P. Ranjith Nissanka

R. M. Ravidu Madhusanka Rathnayaka, K. R. Yaseer Althaf,
W. A. M. Manoj Karunathilaka

drop is measured. Traditional farmers are making the slow but steady journey toward climate smart agriculture.

The upgrading of the Gomarankadawala village irrigation system has served as a catalyst for the community to learn modern farming techniques, and integrated water management. The agro-met advisories have rewritten their relationship with the seasons. When clouds gather, they're prepared; when skies stay dry, they adapt.

"We have a very selfless and dedicated team, with strong leadership," says Ranjith. "We can make informed decisions and be sure the rest of the village will trust us."

In Gomarankadawala, tradition and tomorrow walk hand in hand.

Smoked Fish on the Shores of Hakwatunawa Wewa

Diversifying the income of the fishing community

"In August, water from the tank is released for farmers to start cultivation for the yala season. And towards the end of November the monsoon rainfall fills up the tank again. The fish in the tank become very active in this murky water. During this period of about one or two months, we catch about 2,500 kilos of fish – but we can only sell about 1,000 kilos. The rest we give it to our friends and family or sometimes throw away."

The air hangs thick over the Hakwatunawa tank—a humid blend of wet earth, monsoon promise, and fishnets pulled taut. As the afternoon sun scowls, the water churns with silvery flashes, a frenzy of fish sensing the release of the water for the yala season.

This is where P.D.S.S. Pathirana and W.D.S. Asoka Ranjith have wrestled for years with submerged ghosts—ancient tree skeletons lurking beneath the water, tearing at their nets.

"This tank was built over an old forest. The bed of the reservoir is still littered with ancient trees and other debris. These damage our nets quite often. We spend over 60,000 rupees for a new set of nets, which we can barely use for around two months."

For two months of the year, the fishermen of Hakwatunawa tank catch more fish than they can sell.

"In August, water from the tank is released for farmers to start cultivation for the yala season. And towards the end of November the monsoon rainfall fills up the tank again. The fish in the tank become very active in this murky water. During this period of about one or two months, we catch about 2,500 kilos of fish – but we can only sell about 1,000 kilos. The rest we give it to our friends and family or sometimes throw away."

W. D. S. Asoka Ranjith

For generations, this rhythm dictated their lives: catch, surrender, survive. On average they catch about 10-15 kilos of fish every day and sell their catch to local buyers. When the tank overflows with fish, the market overflows with exploitation, buyers offering a paltry 350 rupees per kilo, a price which they feel is unfair for their hard work and time, a price that is barely enough to cover the fingerlings they painstakingly restock.

"We restock the tank with fish every month. The price of fingerlings (finger-sized baby fish) has increased from only 4 rupees to 12 rupees. We should ideally add 50,000 fingerlings to the tank every quarter, that's hard for us to do now. We can only spend 150,000 rupees annually on replenishing the tank, whereas we should invest 600,000 rupees. It's because of the rate that buyers offer us for our catch."

But now, a new scent lingers in Hakwatunawa, Kurunegala; the rich, woody aroma of smoked fish curling from a handmade oven.

Sri Lankans love eating dried fish – at least the salted and sun-dried variety. Smoked fish is a peculiarity, it's not commonplace,

Hakwatunawa Wewa

P. D. S. S. Pathirana

and a practice limited to a few communities around selected tanks in the dry zone.

The shift began with a spark of support from CRIWMP: 30,000 rupees for bricks, steel, and mesh. A simple oven, built by their own hands, where 5 kilos of fresh fish transform into 1 kilo of gleaming, amber-hued smoked treasure, worth 2,500 rupees. The first time the smoke rose, so did their hopes, along with the profit of around 700 to 1,000 rupees.

"Since we started smoking fish, we have the belief that we don't have to sell our fish if we don't agree with the price, we can smoke our whole catch and make a much better profit."

Pathirana and Asoka, like many other fishermen in the dry zone, have relatively little bargaining power and must make-do with what they are offered. This is a status quo that they are adamant about changing. Not for just themselves, but also for the 50 members of their fishermen's society.

The oven heat does more than preserving, it defies the old rules. No more rushed sales to predatory buyers. No more watching their labour sink into loss. With each batch, the fishermen reclaim dignity. They teach their society to weave wider nets, not just for fish, but for opportunity.

"Since we started smoking fish, we have the belief that we don't have to sell our fish if we don't agree with the price, we can smoke our whole catch and make a much better profit."

"We only have one oven so far, and it can smoke-dry roughly 200 kilos of fish. We plan on expanding to more ovens as soon as we can source more fish around the year."

"We only use nets with a minimum gauge of 04 inches, so we can be sure not to catch fish that are still too small to breed. That's something the project taught us."

Pathirana, Asoka and the few others who have embraced smoking their fish, understand its potential to maximize profit, minimize wastage and give the fisherman more bargaining power with their catch. They are encouraging their association to buy the catch directly from the fishermen instead of relying on outside buyers and to opt for value addition by smoke drying the fish.

Livelihood diversification is a very important aspect of integrated water management and ensuring that communities in the dry zone are well equipped to adapt to the challenges of climate change.

“The project supported us initially to get bricks, cement, steel mesh, and tin roofing for an oven.”

Yet the true flavour of this story? Ambition smoked slowly and steadily. They dream of more ovens, more fish, a future where their children inherit greener pastures.

“We only have one oven so far, and it can smoke-dry roughly 200 kilos of fish. We plan on expanding to more ovens as soon as we can source more fish around the year.”

For generations, people in vulnerable communities have measured their world by the boundaries of familiar fields and fishing waters, their calloused hands only knowing the weight of their fishing nets, and their horizons hemmed by the same realities their grandparents had faced. These communities have a limited understanding of what their options are, how they can improve their income, and build better and diversified revenue streams. Through many small-scale interventions such as this, the CRIWMP has touched many lives—showing fishermen their faces as entrepreneurs, farmers as innovators, and women as market-makers.

Now, the air hums differently. Still scented with earth and sweat, but layered with the sharp promise of smoked fish, the earthiness of processed grains & cereals, and the quiet crackle of ledger pages turning. Independence tastes like fish cured by their own hands, feels like soil yielding more under smarter methods, sounds like the first confident “no” to lowball buyers. Where once there was only the circle of a struggling village, now there are bridges built of smoked fish racks, and jars of pickled vegetables, reaching out to connect with the wider world.

CRIWMP has paved a path towards inspiration, ambition, direction, and independence. A match was held to rekindle their resilience. And in Hakwatunawa, the fire is just beginning to catch.

FROM DATA TO DECISIONS: CULTIVATING CONFIDENCE IN THE DRY ZONE

Dr. Buddhika Abeysinghe, Provincial Director of Agriculture. North Central Province, leads the charge in turning climate information into farming confidence.

Dr. Buddhika Abeysinghe

"The dry zone is very vulnerable to climate change. Rain patterns are becoming increasingly more unpredictable, the temperature is increasing, pest populations have changed, their breeding cycles have changed, and there are new pests. Farmers are heavily reliant on pesticides, and farming is not profitable. Our food production is decreasing each season."

The District Agro-Met Advisory, a first for Sri Lanka, is a tailored information service that provides farmers and at-risk communities with weather forecasts, climate data, and agricultural recommendations to support decision-making in farming, irrigation, and disaster preparedness. These advisories translate complex meteorological data into actionable insights, helping farmers plan crop cultivation, manage water resources, and mitigate risks from extreme weather events such as droughts, floods, and even pest outbreaks.

Given the increasing challenges posed by climate change, the Agro-Met Advisory ensures that farmers receive location-specific, timely, and easy-to-understand guidance. This includes recommendations on:

- Optimal planting and harvesting times,
- Suitable crop varieties based on weather and soil conditions,
- Irrigation scheduling based on rainfall and water levels,
- Early warnings for floods, droughts, and pest/disease outbreaks.

By integrating weather forecasts with agricultural and water management data, the advisory enhances climate resilience, improves crop productivity, and reduces losses due to climate-induced extreme weather conditions.

“We import potatoes from India and Pakistan. Imagine a scenario where climate change restricts their production. Their primary focus will be to ensure that their people are fed; exporting will be a secondary focus. As a small country we will face many challenges going forward. That is why we must be pre-emptive and take the necessary measures to ensure our farmers are well equipped to adapt to climate change.”

“We must move toward climate smart agriculture – for this to happen, agriculture officers and farmers need easy access to accurate and timely meteorological information. They need to know exactly when it will rain, and when and in what amounts to use their water resources.”

The Agro-Met Advisory system operates through a multi-step process involving data collection, analysis, customization, and dissemination:

1. Data Collection & Forecasting:

- The Department of Meteorology generates seasonal weather forecasts using high-capacity servers and advanced modelling.
- CRIWMP supplemented with more automated weather stations (10 rain gauges, 5 agro-met stations) provide real-time weather and hydrological data.

2. Advisory Customization:

- National-level forecasts are refined into district and locality-specific advisories by integrating local data such as soil conditions, water availability, and crop preferences.
- District-level agriculture officers use guidelines and training to co-develop advisories that match farmers’ needs.

3. Digital Platform for Integration:

- A centralized digital platform consolidates weather, crop, water, and disaster data from multiple agencies.
- The system uses application programming interfaces (APIs) to automatically fetch updated data from partner institutions.
- Farmers and officials can access real-time data for better planning.

4. Dissemination to Farmers:

- Advisories are shared through multiple channels, including:
  - Mobile App (“Anaweki”) – Provides 9-day weather forecasts.
  - WhatsApp/Facebook – Quick updates for farmer groups.
  - Local Radio & Posters – Ensures reach to less tech-savvy farmers.
- Agro-Met Cells at district levels and Agrarian Service Centers coordinate advisory distribution.

5. Response & Feedback:

- Farmers apply advisories to adjust planting schedules, irrigation, and pest control.
- Extension services, insurance providers, and financial institutions support farmers in implementing recommendations.
- Monthly weather briefings between the district level agencies & the Department of Meteorology help with feedback & refining.

“My agriculture officers need accurate information, when it will rain, how the pest population will change, the temperature changes in the coming months, to predict challenges and correctly inform farmers on the best steps to take.”

“This task was not something a project should’ve have done; it should’ve been done by the agriculture department. It is my responsibility, so that is why I am invested in this and building on the support the project has given to ensure the agro-met advisories are continued and as widespread as possible.”

The Agro-Met Advisory system is a collaborative effort involving multiple national and provincial agencies:

Agro-Met Advisory system

- **Department of Meteorology**
  Provides weather forecasts and climate data.
- **Department of Agriculture**
  Contributes crop-specific recommendations.
- **Department of Agrarian Development**
  Supports farmer outreach and extension services.
- **Irrigation Department**
  Monitors water levels and manages irrigation planning.
- **Disaster Management Centre**
  Issues early warnings for floods/droughts.
- **Provincial/District Agriculture Departments**
  Customize advisories for local conditions.
- **Provincial & District Administration**
  Supports coordination and dissemination.

“Over the last 5 years we have seen significant changes in how people in the dry zone farm. People are very willing to embrace technology if we take the time and make the effort to educate them and show them the benefits.”

“My officers are very keen to do the work; they want to make a change. Sadly, there are many shortcomings in coordinating between different authorities and collecting data. There needs to be a national policy to address this.”

“Our country has an aging population of farmers; they aren’t the people to go looking for technology. We must show and teach them.”

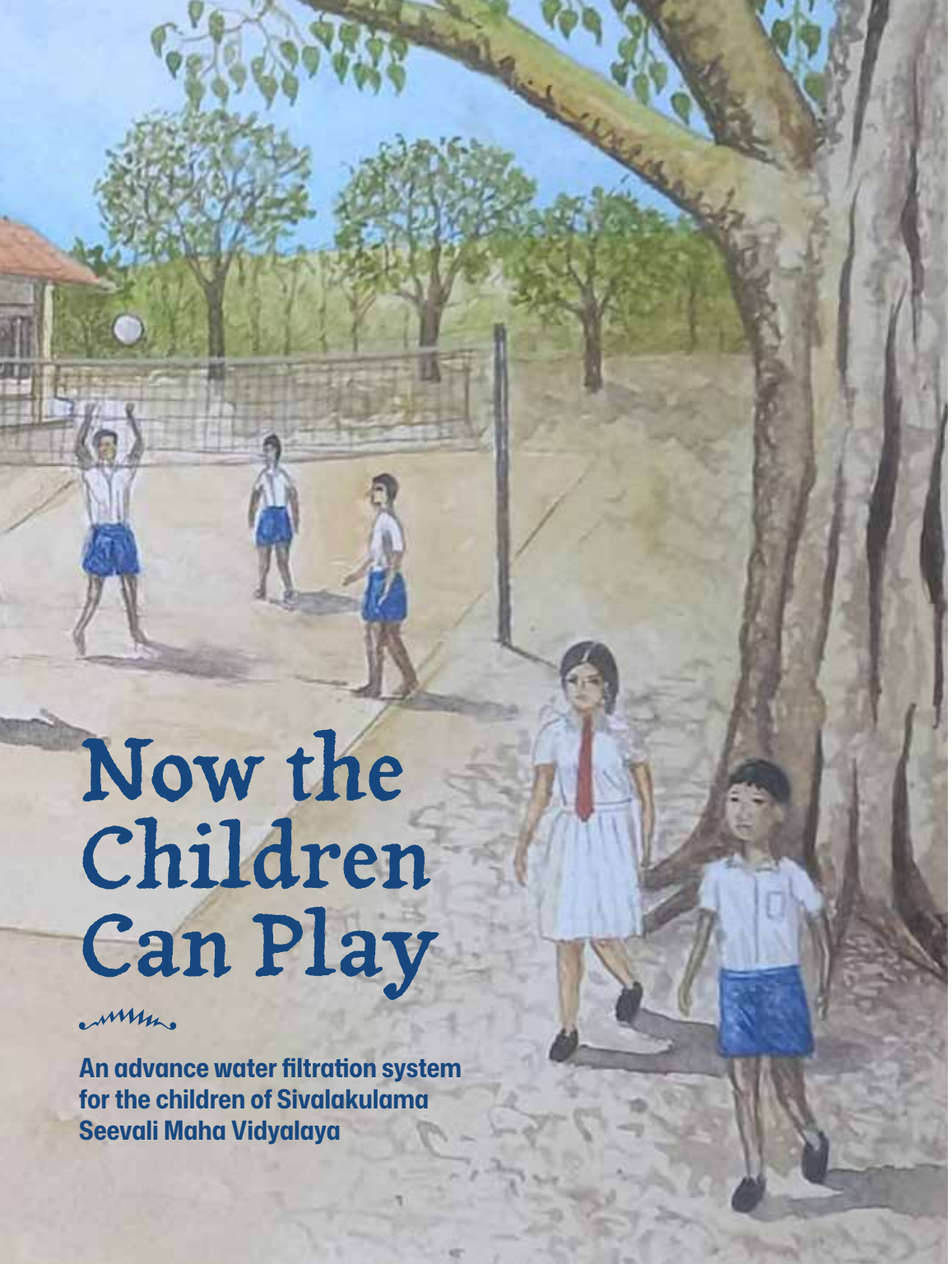
“We need to ensure that climate smart agriculture and climate-smart data access is added into national policy.”

The Agro-Met Advisory system, pioneered by CRIWMP, is a transformative tool that empowers Sri Lankan farmers with science-based, location-specific guidance to enhance productivity and climate resilience. By leveraging technology, institutional coordination, and multi-channel dissemination, the system ensures that farmers receive accurate, timely, and actionable information, helping them adapt to climate uncertainties and secure better agricultural outcomes.

This initiative represents a national effort toward climate-smart agriculture, where every stakeholder, from meteorologists to extension officers, plays a crucial role in building a more resilient farming community.

Edarukotuwa Anicut

Olagam Wewa



Now the Children Can Play

An advance water filtration system for the children of Sivalakulama Seevali Maha Vidyalaya

Anuradhapura has developed rapidly since the end of the civil war, but the further you travel from the heart of the city, the land tells a different story. Here, hardship lingers like the dust on sunbaked dirt roads, a quiet companion to a large majority of its population. Sivalakulama Seevali Maha Vidyalaya is roughly a one-and-half-hour drive south-east of Anuradhapura. It is a small school of about five hundred students from primary to grade 13.

The school is set amidst a scenic landscape. A drawn-out expanse of grass fields and dry-zone shrub forests borders the school. There is no fence here, no clear distinction as to where the school ends, and the wilderness begins. Three lines of broken cement benches sit under a majestic bodhi tree, with the afternoon sun breaking through the canopy of ‘bo’ leaves that rustle in a dry breeze. The youngest of the school’s pupils dart about in glee, their bare feet kicking up dust, during the midday break.

The classrooms sit heavy with heat, their walls bare of fans. Within them, students grasp tightly to what little Sri Lanka’s cherished free education system can offer. Yet, the children here are just as resilient as their parents and most of the denizens of the Dry Zone. They have been consistent divisional champions in both women’s and men’s volleyball for many years at all age groups – without even a coach to train them.

The school only offers G.C.E Advanced Levels in the Arts and Commerce streams, but a few students gain university admission every year. There are no tuition classes nearby. Just dog-eared textbooks and the stubborn belief that hard work might be enough. The teachers, too, refuse to let hope fade. Long after the final bell, they remain, voices hoarse from extra lessons, chalk dust clinging to their hands, giving freely what little they have: time, knowledge, a chance.

The school's water carries the harsh taste of the dry-zone, dense with salts and minerals. Many years back, the school was given a water filtration system. But due to the lack of maintenance, and no one taking responsibility for its upkeep, the water filter became a monument to good intentions abandoned. The school could not afford to repair and replace parts of such a system. Now, through the CRIWMP, an advanced filtration system has been provided to the school.

It is hard to imagine what it must feel like not to have clean water to drink when you're feeling thirsty. The climate here is unforgiving, the heat beats down and the humidity clings to your skin, sapping any strength. Yet, every morning, these children return to school every day—to study, to play and be what a kid should be—except carefree.

Roshan Indika Bandara

"I can't let this fall into disrepair. We won't be able to fix it. I don't want the children to be without clean drinking water,"

Inod Nethsara, Ashan Sandaruwan, Kaveesha Sathsara, Nipun Kanishka, Dinuka Nimsara, Ashani Maleesha, Chamodi Prarthana.

However, there is one man who knows that thirst. Roshan Indika Bandara is the 33-year-old Sinhala language teacher at Sivalakulama Seevali Maha Vidyalaya. He has taken it upon himself to manage the filtration system and ensure that it is well-maintained. Roshan is a graduate from the University of Kelaniya.

"I can't let this fall into disrepair. We won't be able to fix it. I don't want the children to be without clean drinking water," says Roshan.

At first you might wonder why Roshan is so dedicated to maintaining this water filtration system. It is because he too was

“My home is here, my parents are here, and by coming back I was hoping I could give back to my community in whatever way I can. I take the responsibility of maintaining this filtration system and ensuring the staff and the children know the importance of it very seriously.”

once a student at this very school. He has lived experience of how difficult it is going through a scorching hot day without water to drink. Of choosing not to play because thirst was worse than boredom. It is the sad but true reality of so many children in the dry zone.

Roshan left for Colombo to go to university but chose to return to his small village instead of pursuing a ‘better life’ in the city – rarely do people make that choice.

“My home is here, my parents are here, and by coming back I was hoping I could give back to my community in whatever way I can. I take the responsibility of maintaining this filtration system and ensuring the staff and the children know the importance of it very seriously.”

“Why I care about this filtration system so much is that I have lived through the hardship of not having clean drinking water when I was a student here all those years ago. We did drink water from some of the wells back then, but maybe because of the more frequent use of chemical pesticides now, the water in those wells is undrinkable.”

“Wew Gam Pubuduwa was the only project to come and revitalize the tanks of our cascade, it has really rejuvenated our community. It’s safe to say that we are all very grateful.”

The intervention at this school might seem very straightforward, however the impacts it has are manyfold. This school is attended by both girls and boys, the girls do bring a bottle of drinking water from home, but it seems the boys never do.

Being able to stay hydrated in a difficult climate allows the children to focus on studying and playing and being children.
The thoughts the children shared were very simple, but unanimous – gratitude. They shouldn’t have to be, no child should have to worry about having clean and safe water to drink. And, with every sip of water in this school, Sri Lanka moves closer to a future where no child must choose between playing and parching, between learning and longing for a drink of water.

“Wew Gam Pubuduwa was the only project to come and revitalize the tanks of our cascade, it has really rejuvenated our community. It’s safe to say that we are all very grateful.”

"Advanced Water Filtration Systems (AWFS) are especially designed to treat poor quality groundwater and make it safe for daily use.

The AWFS uses two types of advanced filtration technologies—Reverse Osmosis (RO) and Nano Filtration (NF)—each tailored to different water conditions. In the RO process, water is pushed through an ultra-fine membrane that blocks nearly all impurities, including salts, fluoride, and bacteria. The NF process uses a membrane with slightly larger openings that removes hardness and some contaminants while allowing beneficial minerals to remain. This makes the water not only safe but also healthier to drink.

The leftover water from these filtration processes—called effluent—contains concentrated impurities. Instead of letting this waste harm the environment, CRIWMP treats it using bio-wetlands. These are natural systems made of specially selected plants that absorb and break down pollutants. As the effluent flows through these green beds, it gets cleaned by nature before being safely released or reused." – Mr. Sajjan Jayasiriwardene, Drinking Water Specialist, CRIWMP, UNDP Sri Lanka.

Vimaladasage Wewa

Fruits, Sports and Eco-Tourism

The commercial homegarden of Hatharaskotuwa

Sri Lanka is home to a beautiful free-education system that allows for even the most vulnerable children a ladder to climb, from primary classrooms to university halls. Yet for many in the dry zone, education is a luxury often sacrificed at the altar of survival. In agrarian communities, children trade textbooks for tools, their dreams deferred by the relentless demands of family farms.

Kasun Kishantha and his cousin were the only two students from their village to secure university admission—a triumph forged through financial struggles, the lack of access to supplementary classes and the duties on their family farms. While most who escape rural life never return, Kasun chose differently. After earning his degree in Sports Education from the University of Sabaragamuwa, Kasun came home.

Kasun Kishantha

“I grew up watching my father farm our land. It’s what I always wanted to do,” Kasun reflects. “They raised me through much hardship, and I feel it is my responsibility to look after them, and make sure they have a better life.”

“My perception of farming has changed a lot. Once upon a time our thinking was limited and straightforward, we’d plant a tree and pluck the fruit. That was it,” he says. “But the project has given me lot of technical knowledge; from how to prune the fruit trees to get a better yield, and how to plan my cultivation, to intercropping to get the maximum use of my land.”

Kasun’s time away from his village has broadened his perspective and worldview. His four years in university have emboldened him to embrace new ideas and explore new avenues to expand his small farm in a little corner of Polonnaruwa.

“My perception of farming has changed a lot. Once upon a time our thinking was limited and straightforward, we’d plant a tree and pluck the fruit. That was it,” he says. “But the project has given me lot of technical knowledge; from how to prune the fruit trees to get a better yield, and how to plan my cultivation, to intercropping to get the maximum use of my land.”

For generations farmers in the dry zone have been true to the traditional knowledge passed down from their parents and grandparents, stubbornly refusing to change even amidst the increasing costs of farming, the decreasing profits and challenges posed by climate change.

“The traditional knowledge which has been passed down, from my father and grandfather, aren’t as relevant as they once were. Climate change is changing weather patterns and the pests

"I am doing the groundwork to eventually turn my farm into a fruit forest and build small eco-lodges to attract tourism here. I think this will give a lot of opportunities to my whole community, as well."

that destroy our crops, we as farmers must adapt, embrace new techniques and technologies to continue this way of life – sadly most people in these parts are very reluctant to try new things. But I do try to share everything I learn to anyone who wants to learn."

A small revolution in a region where generations have clung to ancestral wisdom, even as climate change and rising costs render it obsolete.

Water is the life blood of Polonnaruwa, the ancients had built great reservoirs to farm the flatlands. These tanks and the countless thousands of miles of irrigation channels that direct water into the paddy fields have fallen into disrepair. Modern knowledge of water management, accurate meteorological information, and new technology and techniques had not been provided to these hardworking farmers. CRIWMP has changed that, and has replaced attitudes and belief systems in the process.

"We used to cultivate only short-term seasonal crops, which was very vulnerable and dependant on rain. We suffered a lot of losses, because of too much rain and too little rain. Now we have many varieties of perennial crops to give us a supplementary income."

As modern farmers like Kasun, build a guaranteed year-round income, they have gained the freedom to dream bigger.

And Kasun certainly dreams big. His farm sits near Kaudulla and Minneriya National Parks, where elephants roam, and the ruins of Polonnaruwa's ancient kingdom whisper of grandeur.

"I am doing the groundwork to eventually turn my farm into a fruit forest and build small eco-lodges to attract tourism here. I think this will give a lot of opportunities to my whole community, as well."

His vision embodies CRIWMP's core belief: that knowledge, paired with opportunity ignites transformation and big dreams. In Kasun's hands, a university degree and ancestral lands are no longer contradictions.

Through the Good Times and the Bad.

Kithuluthuwa roadside market

Travelling the A6 highway is a meditative experience. There are no bends in the road, there are no hills to climb. It is a straight, flat road that disappears over a horizon that never nears. A silver ribbon unfurling across the sunbaked land. After the monsoon rains open, vistas of green paddy fields, shrub forests and grassy plains come alive to line the highway. From Trincomalee to Habarana, you can for a few hours, let time stop, and soak in the natural beauty of Sri Lanka's dry zone while you let your imagination run amok the peaceful solitude.

Agriculture is the lifeblood of the North-Central Province. It has been for thousands of years. The people in these lands live by the grace of the seasonal rains and the reservoirs built by kings long gone, those from the Anuradhapura and Polonnaruwa kingdoms. There are no big industries in this part of the country, no opportunities as such to speak of. The people here have but a few options. Life moves at the pace of the seasons.

“My husband only recently got his job back. For seven months we had no source of income. I didn’t know how we would feed our family and how to make sure our boys could keep going to school.”

This blissful drive might momentarily distract a traveller from the worries of urban living. But it just as easily draws the mind to questions of an uncertain future. Climate change is slowly but systematically changing the lives of the people of the dry zone. Rains arrive late, not at all, or all at once. This leaves cracked earth where crops should stand, or washes harvests away. New pests devastate crops, stripping leaves to lace, swarming through changed breeding cycles. The wisdom of generations feels fragile now. The traditional knowledge by which communities have farmed for generations are becoming irrelevant.

Is there no oasis in this rugged land for respite from these ominous thoughts?

Kithuluthuwa, is that little oasis. A stretch of that same straight flat road, lined by quaint little shops for about half a kilometre. A village that is adopting climate-smart agriculture wholeheartedly and taking pre-emptive steps to adapt to climate change.

Shakila Sewwandi is a 34-year-old housewife and mother of two playful little boys. Her laughter rings out before you even see her. Bright, infectious, impossible to ignore. She had never farmed or reared poultry till two years ago. Her husband is a police officer, a respectable public sector vocation with job security and a guaranteed pension. They are not a farming family. However, almost a year ago, Shakila’s husband faced an unexpected professional setback that kept him away from work for seven months.

Shakila Sewwandi

“My husband only recently got his job back. For seven months we had no source of income. I didn’t know how we would feed our family and how to make sure our boys could keep going to school.”

Shakila was one of the many beneficiaries of the CRIWMP from the Kithuluthuwa village. She had joined the project much later than many of her neighbours, but necessity had driven her to become a case study of determination and success. “We never had a shop before, but we would sell a few things by the roadside. We had no planned crops. Whatever grew in the garden, if there was anything extra, we’d sell that.”

Before the project, she would sell some mangoes from her trees and maybe a few odd vegetables here and there, but it was never a priority. But she had started engaging with the project and going for trainings before her husband’s period of unemployment. This gave her an option to take control of the difficult times they were going through.

"We didn't know how to plan a garden. We'd grow vines and plants together in one lot. It wasn't efficient. Pests that come for one plant would eat the other, as well. With the training we got from the project, we have now planned our gardens and crops in a way we can maximise the use of the land we have."

No project can take credit for the determination of an individual or their dedication towards keeping their independence and pride, while never letting themselves fall into desperate times. But it did provide Shakila with an opportunity to build a business from her garden. She diligently planned and grew her crops and steered her family through a very difficult time.

"We didn't have to borrow money from anyone; there were days we made over 10,000 rupees. That is a lot of money for us."

"A lot of our customers are people travelling from Colombo or other cities that are passing through. To get their attention, we made sure we had a beautiful garden. We invite them in and let them look around and pick whatever they like from the trees. They really enjoy this and end up buying a lot of produce. They can see for themselves that its organic and fresh."

"The project gave us so much. Trainings and seeds, and support to set up our home garden and roadside shop, and even a parent stock of chickens. They gave us everything we need to start our poultry farming; we have eggs everyday now."

She goes on to say, "The project gave us so much. Trainings and seeds, and support to set up our home garden and roadside shop, and even a parent stock of chickens. They gave us everything we need to start our poultry farming; we have eggs everyday now."
The road through Kithuluthwa is lined by many shops like Shakila's. All of these were supported by the CRIWMP.

Neighbours who once scrambled over the same meagre sales now plan together, grow different crops, share customers like old friends. Not competitors but partners in a community enterprise.

The dry zone's hardships haven't vanished. But, here, in Kithuluthuwa, there's the scent of hope on the breeze, the sound of laughter cutting through the heat, and the sense that no matter what comes, this village will thrive.

From a Mud Pond to a Farm

A pellet machine for the ornamental fish breeders of Polpithigama

K. K. D. Priyantha Saman Dissanayake

"When I started this business in 2015, I had no clue about ornamental fish. Honestly, at first, I just wanted to breed freshwater fish. It was by coincidence that I heard about a special training programme, in Moratuwa, on how to breed ornamental fish for exporting," says K. K. D. Priyantha Saman Dissanayake.

"The training programme connected us with some aquariums in Colombo, but they could only buy 300-400 fish at a time, the business was growing quickly, and we were having trouble finding buyers for 2,000-3,000 fish."

"We have an association of breeders in Polpithigama, but that's for the local market. We have another association for the Kurunegala District that is exclusively for exporters. We have one buyer in our association, he has the capability to buy 10,000 fish if we can supply. He sends our fish to Europe, America and the Middle East." "Our buyer is very connected with foreign markets. He advises us on the fish we should breed for the next year. He will even import a good parent stock for us, to ensure we breed the best fish."

Priyantha's buyer will give him and other breeders in the association fingerlings which are 2.5 to 3 centimetres in length. The breeders will most often grow these fish till they are at least 5 centimetres long and ready to breed.

"Our association has around 20 members. There used to be more, but with COVID-19 many breeders couldn't keep their businesses running. The cost of feed increased significantly; it was almost 1,200 rupees per kilo. We can't spend that money on feed and sell our fish at a profit."

Through the Polpithigama Breeders' Association, the CRIWMP provided Priyantha, and his company Dissanayake Aquatics, with

"There isn't a feed on the market specifically for ornamental fish, at least for breeding purposes. The nutritional value is not enough. We've given our fish the feed available in the market for a long time, and that has resulted in many deformities in the parent stock. Now since I blend my own feed, I can ensure that my fish get a highly nutritional feed. I give this blend to other breeders in my association as well. Hopefully over time I can make this into a business, as well."

a pellet machine. With the machine, Priyantha can now make his own feed. This feed only costs him 550 rupees per kilo.

Priyantha sells anywhere between 5,000 – 10,000 fish a month. At any given time, he'll only breed one or two varieties: this year it's Mollies and Short Tails. He earns between 10 to 200 rupees per fish – this price is largely determined by the length of the fish. "There isn't a feed on the market specifically for ornamental fish, at least for breeding purposes. The nutritional value is not enough. We've given our fish the feed available in the market for a long time, and that has resulted in many deformities in the parent stock. Now since I blend my own feed, I can ensure that my fish get a highly nutritional feed. I give this blend to other breeders in my association as well. Hopefully over time I can make this into a businesss, as well."

It takes Priyantha roughly 4 hours to make 10 kilos of feed.
"For all the fish in both my farms I need 40-50 kilos of feed each month."

"Making the feed is not exactly difficult, but it needs to be precise."

In the sun-scorched villages of Sri Lanka's dry zone, there are countless young dreamers like Priyantha. Ambitious, determined, yet overlooked. They don't ask for much, just a single chance to rise. And, Priyantha received that chance, just a sliver of support. You can see it in the way he leans into trainings. You can hear it in his voice, warm, eager and crackling with plans. For years, his family survived on the whims of the changing climate. But now, he's building something new. He has received minimal support, but he is already envisioning how he can use that to expand his business. He has been proactively networking and eagerly goes for every training he can. With every small step, he is proving to his community that there is life beyond the daily struggle of farming and fishing.

And the most powerful part? Others are starting to believe it too.

The Spark of Potential

The women-led community water supply scheme of Periyakomarasankulam, Vavuniya

Just like water flowing from a mountain to the sea, people instinctively find the path of least resistance for their journey through life. Change is never easy, and neither is it swift. Humans are creatures of habit and complacency. However, their potential is like lightning in a jar, incredible in power, just waiting to be unleashed.

That is the essence of projects like CRIWMP: to kindle hope where it has long been dim, to provide possibilities for people who have never had the opportunity to think differently or dream of better days.

In Periyakomarasakulam, the groundwater is tainted, undrinkable. For years, the people here travelled 4 kilometres daily to fetch clean drinking water for their homes. They had all but given up hope of a solution for their drinking water problems.

A defunct community water supply scheme, abandoned a decade prior due to mechanical issues and mismanagement, stood as a bitter reminder of past disappointments. The men who had overseen it had resigned themselves to failure, and the village settled back into its weary routine, drawing from distant dug wells and buying Reverse Osmosis (RO) filtered water when possible.

Just surviving.

A change in attitude came in the shape of CRIWMP. The project prioritised women-led CBOs. The old water supply scheme was resurrected, this time with better technology and a groundwater recharging mechanism. But the true transformation was found in the leadership.

For the first time, the women of Periyakomarasankulam took charge.

An opportunity they would not have likely been allowed in any other scenario. Their success is acknowledged by everyone in

the community. The men support the women when required but otherwise they are happy to let the women lead this effort. The community watched, then marvelled, as the system flourished under their care.

“Restarting an abandoned facility like this is never easy,” says Sivanesarajah Nagulesh, the District Coordinator – Vavuniya & Mannar, from PALM Foundation. “It often signals lost trust or capacity,” says Nagul.

In a vulnerable, low-income village, female leadership was no longer an exception. It was the reason for their success.

Yet the women’s ambitions didn’t stop there.

“Every March, the ‘Paraloka Kalvari (Calvary) Church’ hosts a 40-day festival. About half a million pilgrims, from all over the country, come to participate in this festival. They all must buy bottled water – there is no clean drinkable tap water at the church. We want to work towards getting an SLS certification, to be able to bottle our own water and sell it there. This would give employment to at least 15 women from our village,” says the women that run the scheme.

“Every March, the ‘Paraloka Kalvari (Calvary) Church’ hosts a 40-day festival. About half a million pilgrims, from all over the country, come to participate in this festival. They all must buy bottled water – there is no clean drinkable tap water at the church. We want to work towards getting an SLS certification, to be able to bottle our own water and sell it there. This would give employment to at least 15 women from our village,”

T. Pooja, Thavarasa Sahayarani, Thasmikka, E. Mercy Angela, Thavarajini.

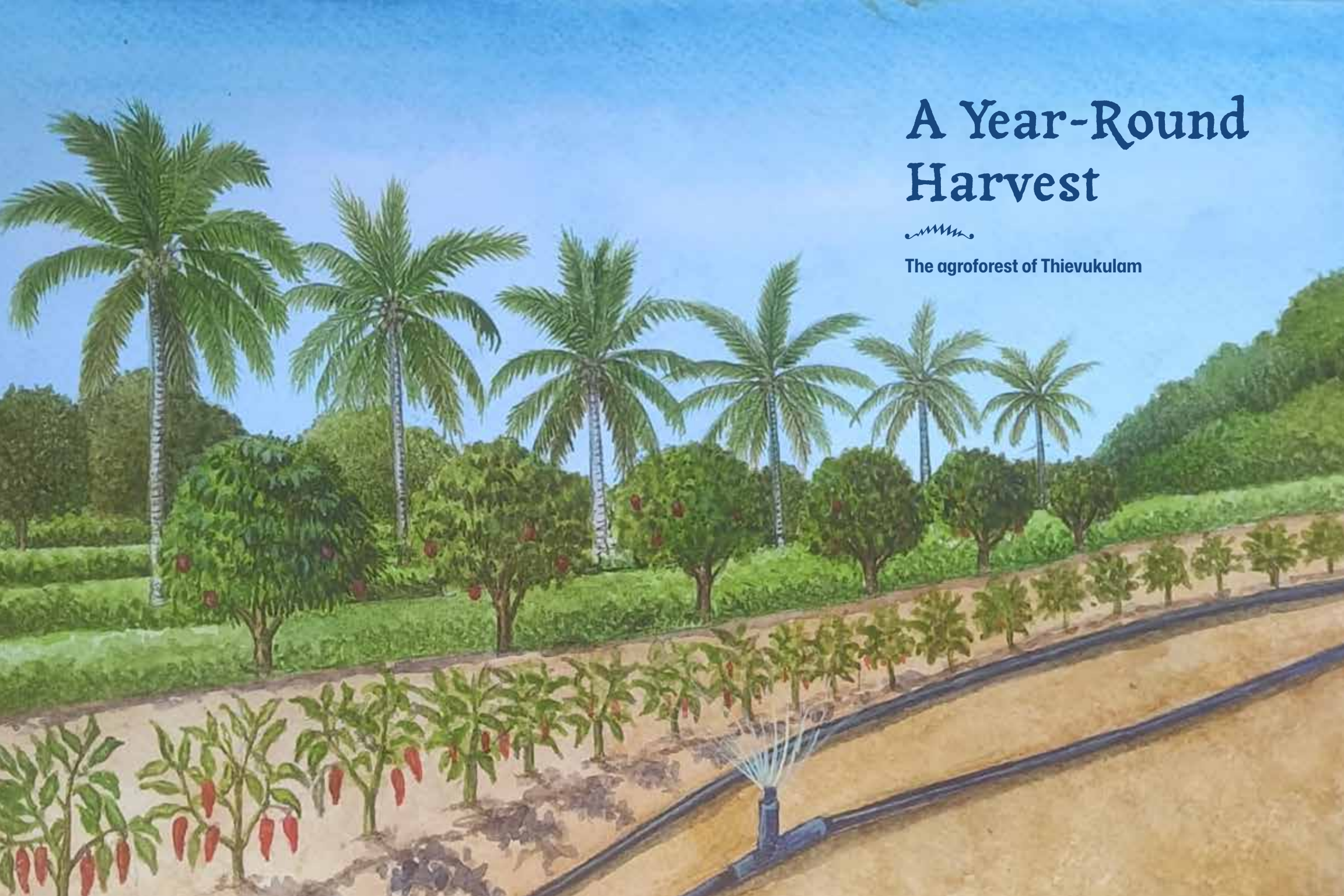
Their vision stretches beyond survival—toward enterprise, toward legacy.

The project has ignited the spark of entrepreneurship and possibility in the hearts of this band of women.

The women of Periyakomarasankulam have a very organised system. They meet at the start of every month for a progress review, balance their accounts, pay salaries, and check for any mechanical issues. CRIWMP helped them draft an action plan, but their discipline and foresight are their own.
This is the heart of empowerment. Not just providing solutions but unlocking the spark within people to build their own.

Across Sri Lanka’s dry zone, CRIWMP has sown this belief, that when women lead, communities don’t just endure.

They thrive.



A Year-Round Harvest

The agroforest of Thievukulam

"Many of the people who live around the Thievukulam tank were displaced during the riots back in 1983."

The Thievukulam tank, a small but vital upper catchment in the Thuduwakkaikulam cascade, was once a landscape of struggle. Its command area, just seven acres, faced relentless challenges, chief among them, encroachment.

"Many of the people who live around the Thievukulam tank were displaced during the riots back in 1983," says Nagul. "They came with nothing, and they have struggled for a long time to build lives for themselves."

When the CRIWMP first arrived in 2018, this was an empty barren land, scarred by chena farming. In less than 7 years it has bloomed into a bountiful food forest. Meticulously pruned

cashew and mango trees seem healthy but small, beneath towering coconut palms. Seasonal crops grow lush beneath towering perennials while thorny lime trees heavy with fruit stand vigil on the borders of each plot to keep away the wild elephants that frequent here.

This is agroforestry—a way of farming that stretches out every drop of water and every inch of land. By mapping the natural flow of water and choosing the right crops for the right places, these systems combine trees that last for years with crops that grow quickly or take a season or two—a carefully planned effort in cultivation. This system includes a healthy mix of perennials, short and intermediate-term crops. This mix means harvests keep coming, water is used wisely, and the soil stays healthy.

But water was scarce, and old habits ran deep. "We realized that there were conflicts amongst the community, between landowners who were upstream and those who were downstream," explains Nagul. "The people upstream had much more control of the water

"Before this cascade project came here, we were chena farmers. We would cultivate sesame for three months and cultivate ulundu (orid seeds) for another three. We would till the land right up to tank – the soil couldn't hold any water, and the soil would get washed right into the tank. But we didn't know any better."

and their bad and reckless farming habits affected the capacity of the tank. This results in people downstream not having enough water to farm even one season." The solution came through the Cascade Management Committee (CMC), which brought neighbours, who were otherwise often at odds, together to share this precious resource.

"When water is scarce it's very difficult to have long-term perennial crops, the plants die as soon as the climate becomes dry," explains Rasika Rathnayaka, the Climate-Smart Agriculture Specialist, from PALM Foundation. "As a solution, we introduced the community to drip irrigation, pitcher irrigation and building soil bunds. This has overall had an impact on the ground water – there is more moisture in the air and more greenery, as well. Another challenge was that the people here were very comfortable farming short-term seasonal crops. The turnaround was much quicker, every three months there would be a yield, and they would earn some money. This meant they had to get tractors regularly and till the soil every three months, worsening soil erosion. They'd wait till one crop was over to start a new one. It took many trainings, demonstrations, and time to change these habits."

The land wasn't the only thing that needed healing. Thievukulam's upper catchment had been encroached for chena farming, its loose soil washing into the tank with every rain, shrinking its capacity. "Before this cascade project came here, we were

chena farmers. We would cultivate sesame for three months and cultivate ulundu (orid seeds) for another three. We would till the land right up to tank – the soil couldn't hold any water, and the soil would get washed right into the tank. But we didn't know any better," says Jayatileke, a farmer under the Thievukulam tank.

Through patient effort, the project surveyed the land, marking the high flood level. Farmers, once reluctant, began releasing encroached areas after seeing the damage their practices caused. Soil bunds and new cropping methods followed.

"There were some people who knew that the way we farmed was destroying the tank, but many others didn't," reflects a community member. "But the way we think has changed, we take more responsibility and take care of the tank. Now we maintain it properly, we have built the jetties for people to bathe, and we have renovated the tank bund."

We had to work very hard to convince people to release those lands, but over time they willingly agreed to do so once we showed them impacts of what they were doing," adds Nagul. Today, Thievukulam is unrecognizable from its past.

"Usually, by August-September, these lands are parched and dry," says Vishwanadan Sivakumar, a Senior Social Mobiliser, from PALM Foundation. "That is not the case anymore.

M. Jesudasan, Jayathileka, A. Selvanayagi, T. Thavjani.

Groundwater levels have improved. Wells have more water. Erosion is under control. This community listened, that's why it worked."

"We grow everything now—coconut, mango, jackfruit, guava, peanuts, watermelon," says Jayathileke. "Before we barely made anything from 20 acres. Now just 1 acre gives us a good income. Now we harvest watermelon every 3 months, peanuts every 2 months and we have other intermediate crops as well. The coconuts, jack fruit and mangoes are like a pension for me. I have very little work to do. I am old now, so this is good."

Theivukulam Wewa

"We grow everything now—coconut, mango, jackfruit, guava, peanuts, watermelon,"

The change goes beyond crops. Silt traps keep the tank clear, and green belts protect its banks. Even livestock, over 20,000 animals, not counting wild elephants, have reliable water. "We took community members to visit other locations that were once very similar to their own land. Seeing for themselves, the change that was possible, really motivated them to adopt the techniques we were introducing to them. It was helpful for them to see what we meant by agroforestry. An acre of coconut, had so much more potential than being simply an acre of coconut trees. It could have so many other crops and provide a much larger income. They saw that they could minimize their water requirement, increase their profits, and reduce the impact they had on the environment. We gave them crop plans and demarcated the land, we showed they could maybe have ten less coconut trees but instead have mangoes and guava plants to double profit," shares Rasika.

Thievukulam's story is one of resilience—of land and people. Where there was once dust and struggle, there is now a forest. And beneath its shade, the community thrives. Its bond with the land, and with each other, stronger than ever, united by the water they now share.

A Fund for the Future

The Operations and Management Fund of Chinthana Farmer Organization

Lolugaswewa

In the heart of the Aluthhalmillawa Cascade, where 22 tanks nourish a thousand acres of farmland, the villagers of Magichchawa have written their own chapter. Here, the waters of the Lolugaswewa tank sustains more than crops; they sustain ambition.

Like hundreds of FOs touched by CRIWMP, the Chinthana FO received training and inputs in integrated water management, agro-met advisories, and climate-smart agriculture techniques. But what sets them apart isn't just what they learned, but what they built. With 10,058,000 rupees accrued in just one and a half years, their Operations & Maintenance (O&M) Fund stands as the largest among all FOs, a testament to collective will.

The villagers' approach is anything but conventional. They are very inventive in financing their O&M fund. Beyond member

K. Fernando

contributions of 600 rupees per season, they've turned their tank into a self-sustaining ecosystem. Lotus flowers blooming across the water's surface fetch 10,000 rupees monthly from local buyers. Fishing rights, auctioned annually, inject 600,000 rupees into the fund.

"There are a few ways we collect money for our O&M fund. We collect a seasonal contribution of 600 rupees from each of our members. We sell the rights to the lotus flowers that bloom in the tank – that's about 10,000 rupees every month. And we also sell fishing rights to our tank. We earn roughly 600,000 rupees from this each year," says K. Fernando, a FO member.

The village was prone to flooding & disaster, often causing damage to the sluice gate – which was in disrepair for quite a while. CRIWMP upgraded the tank & helped establish the fund. The objective of the fund was to provide the FO with an easy-to-access fund which would cover everyday repairs, maintenance

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Thilak Wickramasinghe

work, and sustain the upgrades. Unlike their main FO fund (which holds 1.8 million rupees but requires layers of approval), this reserve is quite agile.

"This farmer organization has a main fund which now has a balance of nearly 1,800,000 rupees. However, accessing this money is difficult and takes at least a week or two and requires many letters

G. W. S. Karunaratne

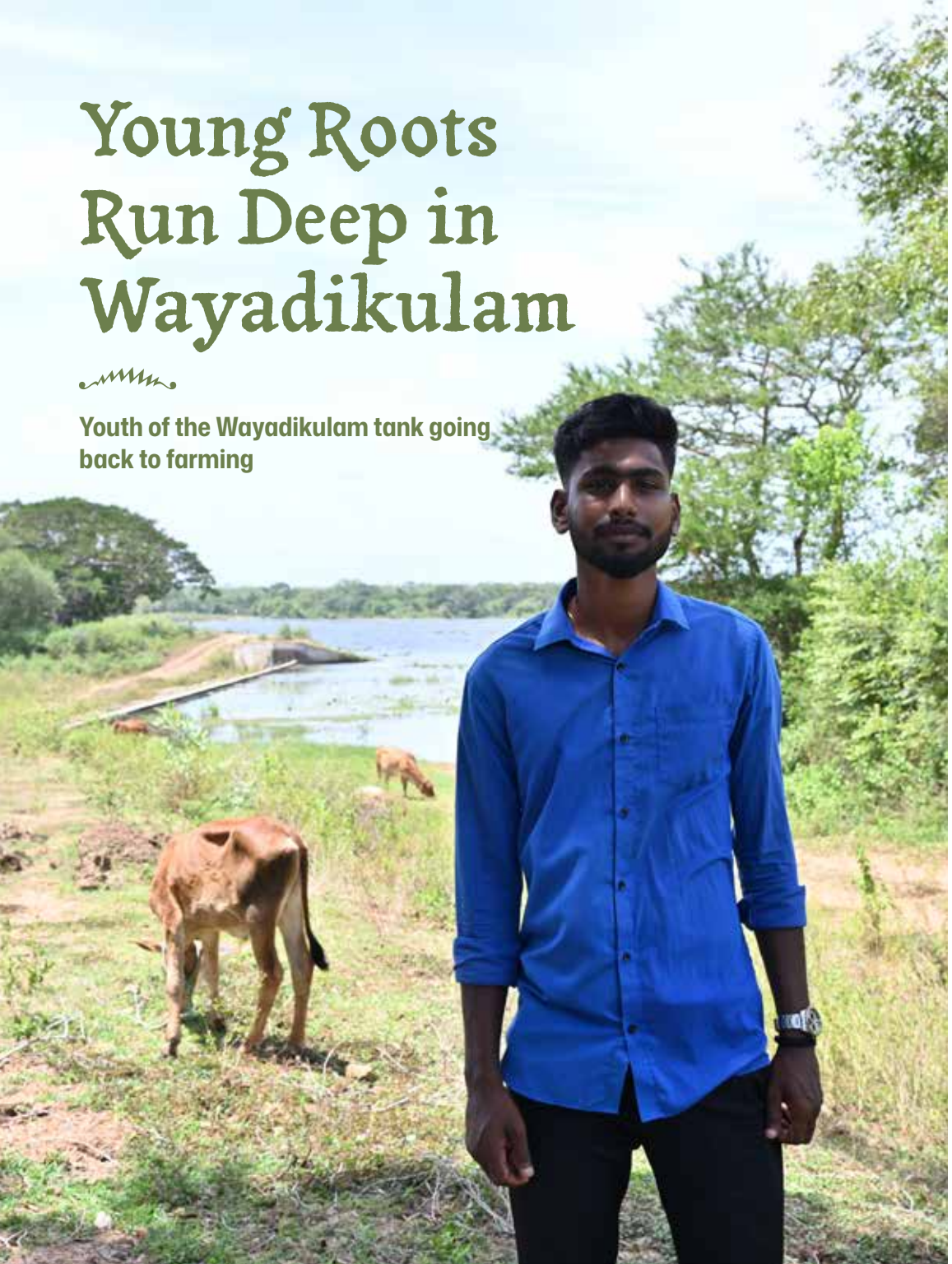
of approval. This makes it virtually impossible to get money for repairs quickly. With the O&M fund they can access their funds within 2 hours," explains Thilak Wickramasinghe, Project Manager from Janathakshan.
The fund hasn't been tapped yet, but its very existence has shifted mindsets. Where once villagers saw a tank, they now see a living asset. Plans to restock fish and lotus blooms are already in motion.

Even without direct access to the yāya programme, curiosity could not be contained. "The yāya programme was not provided to our organization, but we visited nearby locations where it was adopted. We even tried it by ourselves on 1.5 acres of land and had quite good results," Fernando shares.

This is the CRIWMP effect in its purest form: not just rebuilding infrastructure but unlocking a community's ability to reinvent itself. The lesson is clear. When farmers are given tools, trust, and a little time, they redefine what is possible.

Young Roots Run Deep in Wayadikulam

Youth of the Wayadikulam tank going back to farming



When COVID-19 kept 24-year-old Marian Anan Krishanth in his village in Vavuniya, he saw it as a temporary retreat. But what began as a necessity became a purpose. Today, as Secretary of his FO, his hands tell a different story, one of a young man rediscovering his roots

Marian's 5-acre plot now yields nearly 2 lakhs per acre each season. More than what his family once earned. He now farms in two seasons, when for decades farmers of the Wayadikulam tank had abandoned yala cultivation due to water scarcity. The secret? Embracing new ways of farming like parachuting, adopting integrated water management techniques and technology like drum seeders introduced through CRIWMP.

What keeps him in the village isn't just profit. "I like being home," he says simply. While friends migrated for city jobs, Krishanth found something unexpected dignity in farming, and the means to care for his aging parents.

His success has become contagious. Other young villagers have turned to farming, drawn by Krishanth's example. "Many young people in the area are asking me for tips," he explains. "I do this together with my friends."

What began as a pandemic-driven necessity has become a carefully plotted agricultural revolution on five acres. Two productive seasons now yield nearly 10 lakhs annually, money that Marian hopes to cycle back into smarter tools & more agri-tech.

The fields whisper with promise, the technology hums with potential, and a new generation of farmers is taking root.

Organic Connections

A mobile market for the home-gardeners of Pahalagama

“Everyone knows the Haritha Suwa market – they know we are good people with good organic produce.”

Some people are born with a light inside them, charisma, a natural allure that draws people in. Niluka Ariyadasa is one of them. Her smile is infectious, and her presence is warm and welcoming. Even before she says a single word, you feel it: the quiet strength of a woman who has turned scarcity into abundance. You know you want her to succeed in life.

“No one has won at life overnight; I know some days I will make a loss and other days I will make a profit. I will work hard and make sure my customers get healthy, clean, organic produce and food for the best price. I’ll keep only a small profit margin, that’s enough.”

Niluka Ariyadasa

The students at Rajarata University flock to her like seedlings toward sunlight. “I know these children, they don’t have a lot of money, I don’t like to see them sharing cups of fruit salad or not eating healthy or properly because they can’t afford to.” The market’s leftovers never return home with her. Instead, she presses them into grateful hands. “I give it to them for free,” she says, as if the act of feeding others is as natural as breathing.

Before 2020 Niluka was a housewife, who coaxed life from the earth during the maha season. Then her husband’s health faltered, leaving her with a family to feed. Where others might see despair, she saw soil waiting to be sown. There is no bitterness in her voice. Only the steady rhythm of a woman who has learned to dance with hardship. She is a light-hearted woman, with an iron grit. If anything, she seems eager for obstacles to overcome.

“No one has won at life overnight; I know some days I will make a loss and other days I will make a profit. I will work hard and make sure my customers get healthy, clean, organic produce and food for the best price. I’ll keep only a small profit margin, that’s enough.”

"At the start I had a rolling debt of over 80,000 rupees to the farmers I bought produce from. I've settled all of that now."

Niluka is the chairperson for the Pahalagama FO. The society has 190 members. The CRIWMP primarily supported these farmers to improve their home gardening, providing them with seeds, equipment and the necessary technical knowledge to get the best results from their efforts. The farmers all took to the new techniques and approaches they learned, and in a short time, increased their yield and their cropping frequency. Their next challenge was to sell the organic produce they grew.

"At first, we would sell near the District Secretariat. The project then supported us with more long-term, beautiful & rustic stalls to sell from. This got a lot of pushbacks from existing sellers in Anuradhapura town. We're not sure why. This resulted in a long-drawn court case with the Municipal Council, who recently won the case after nearly a year. During this time, we struggled quite a lot, as we had no proper place to sell our produce from."

As a solution to this problem, Niluka and her FO were provided with a modified truck, from which they could do business. This is where the real story begins. It was here that Niluka's true grit shone.

At first, we were always making a loss. I don't think the others were prepared for that, so they quickly gave up on the business." But Niluka? She carried the weight alone—an 80, 000-rupee debt hanging over her.

"At the start I had a rolling debt of over 80,000 rupees to the farmers I bought produce from. I've settled all of that now."

Niluka completely turned the business around in six months. She has set up a little business model for herself. She will buy whatever her farmers bring in each morning, she doesn't turn anyone away or reject any of the produce they bring to her.

"I don't want to demotivate them from farming. I'll always buy whatever they bring me."

She gives the farmers a detailed receipt and makes a note in her ledger. She settles all the payments every Wednesday. According to her, most farmers on average earn up to 10,000 rupees each week. Even villagers who were not a part of the project bring their produce to her now.

"As long as I know it is grown organically, I'll buy from them, as well. I just want everyone in my village to have a better chance at life."

She is very transparent in her business; she buys produce at the daily wholesale rate at the Thambuththegama market and sells at a little below consumer rate.

Niluka, is a true entrepreneur, born to different circumstances, there is no predicting what she could have achieved in life. Her public relations (PR) skills are truly amazing. She is loved

by everyone, she sets up shop in three locations across the week: at the Rajarata University, the District Secretariat and the Anuradhapura Hospital. She doesn't waste anything. What she doesn't sell by dusk becomes something new: chutneys, sweets, bites and desserts.

"At first it was a bit of learning curve, the project team did give me trainings, but I took it from there and started experimenting on my own. I don't think anyone else makes or sells pickled okra and kohila (Lasia)."

Her fruit juice and fruit salad cups are very popular with her customers, she says.

People like Niluka are worth investing in. They have a personal drive and capacity to succeed. With a little support not only can they make a better life for themselves, but they can also become a foundation for their community to grow upon.

"190 farmers", she says, pride warming her words. "At least 100 of them have increased their income significantly. My son goes

. "At least 100 of them have increased their income significantly. My son goes to a private university in Colombo now. I have two people to help me with the business and a driver. This business has really changed my life, and given my family and my village a much better chance at life."

to a private university in Colombo now. I have two people to help me with the business and a driver. This business has really changed my life, and given my family and my village a much better chance at life."

Now, with the same determination that turned a truck into a thriving enterprise, Niluka dreams bigger. "I'm setting aside savings," she says, her eyes alight with plans. A generator hums in her imagination, powering a small fridge where cups of creamy ice cream and chilled fruit juice will wait, sweetening the scorching afternoons of her customers.

The future, it seems, will taste even sweeter.

Niluka Ariyadasa is a force, a woman who turned hardship into hope. And when she smiles, you taste it in the food: the sweetness of perseverance, the spice of resilience, the unmistakable flavour of a life well-lived.

The Taste of Change

Rainwater harvesting & groundwater recharging in Weherabendiyawa, Buduruwakanda

In Sri Lanka, you cannot pass a house without being called inside, your arrival met with steaming cups of amber tea, fresh thambili sweet with morning dew, or at the very least, a cool glass of water offered with open palms. Walk down the dusty lanes of Weherabendiyawa, where the sun bakes the earth into cracked mosaics, and trees cast slender shadows, and stop at any home—the hospitality is instinctive, as natural as breath. But the water here carried the sharp bite of hardness, a cruel irony in a land where guests are welcomed with open arms.

“Making a drinkable cup of tea might seem like such a trivial thing for most people, but for us, it used to be such a difficult task,” confesses T. M. Nissanka. “We are social people, we live in close communities, and we pride ourselves on our hospitality. I think most Sri Lankans are like that. It’s really upsetting when we can’t offer a guest a cup of water or tea that doesn’t taste salty . It’s embarrassing.”

“Making a drinkable cup of tea might seem like such a trivial thing for most people, but for us, it used to be such a difficult task.”

The 140 families that live in Weherabendiyawa, Buduruwakanda, have never had clean drinking water. Before dawn, while the last stars still clung to the skies, and the village slept in a hushed darkness, the women would slip away, stepping out quietly before lighting the hearth for the day, before the little ones would call out for amma, rubbing last night’s dreams out of their eyes. Their bare feet pressed into the cracked earth, the weight of empty clay pots balanced on their heads like crowns of burden, each step measured against the miles ahead. “The women in our households played the bigger role in making sure our families had drinking water,” shares a villager. They had never been supported by any project; they didn’t even know who

they should ask for help. Instead in silent resilience they walked the countless miles back and forth from the few wells that had year-round drinking water. “In the evenings it wasn’t uncommon to see women with children on their hip and a claypot of water balanced on their heads walking down this road,” says Nissanka.

Through CRIWMP, 65 families in the Weherabendiyawa village received rainwater harvesting systems with 5,000-litre tanks, and with them, a new way of life. In the dry zone where rain comes just twice a year—from October to December, with sporadic showers between March and April—every droplet became suddenly precious. “We had never really thought of using rainwater for drinking,” admits a villager. “Maybe we were a bit sceptic at first.” Yet the math was undeniable. These brief rainy seasons, properly harvested, could provide clean water for a whole year.

“We were taught to let it rain a bit before opening the valve to fill the tank. This way we can be sure that once the water is filtered it is clean and safe to drink.”

The first rains were a symphony: fat droplets drumming on rooftops, gurgling through freshly cleaned gutters, rushing into waiting tanks. “We were taught to let it rain a bit before opening the valve to fill the tank. This way we can be sure that once the water is filtered it is clean and safe to drink.” The proof was in every sip. No more metallic tang, no more grit between the teeth—just clean, life-giving water. “Since then, that’s all we’ve been drinking. We don’t even buy RO water anymore.” A chuckle. “I think it’s been enough time for us to have gotten sick if this water was bad for us.”

T. M. Nissanka

This transformation went beyond just providing tanks. The primary objective of CRIWMP is water management, and to teach people who have known water scarcity their whole lives, how to make the most of the water resources they do have. The villagers, once strangers to the concept, now speak of groundwater recharging with the fervor of converts. “We were very dismissive at first about groundwater recharging,” admits another villager. “The exposure visit to NWSDB-Wariyapola groundwater recharging demonstration site was an eye opener for them,” says Sarath Wickramasinghe, Manager & District Project Coordinator – Kurunegala, from Sri Lanka Red Cross Society.

“We didn’t know what it meant or how it would be benefit us, but the project officers were very patient with us and slowly taught us why it is important,” says a villager. He directs the view to a small water retaining structure, “we take the initiative now, we create small retaining structures (kutti kaanu) and shallow catchments (pathas) according to the natural contours of the land, to ensure that rainwater doesn’t just run off and it has enough time to seep into the soil.” The proof is visible across Weherabendiyawa’s

Champika Ranathunga

“But it is an investment for the future. Slowly but steadily the water table here will rise-up, while improving quality of water and over time perennial crop varieties and patterns will change.”

landscape. Where once rainwater would vanish as quickly as it fell, now a network of handmade earthworks captures each precious drop. “We don’t waste a drop of rainwater that our roofs catch,” says one, pointing to a pipe diverting runoff to thirsty wells. The earth, once hard and unyielding, now drinks deeply. “We don’t waste a drop of rainwater that our roofs catch. Apart from the rainwater that fills our tank, the rest we divert with pipes to our wells and the ground water recharging installation. We are already seeing results. To us it seems that the more rainwater we divert to our well – the less salty the water from it tastes,” they marvel. The trees stand taller, their fronds whispering in the breeze, greener than anyone can remember.

“Ground water recharging is not something these families will have a direct benefit from”, explains Champika Ranathunga who is a Field Engineer in Drinking Water from CRIWMP, UNDP, “but it is an investment for the future. Slowly but steadily the water table here will rise-up, while improving quality of water and over time perennial crop varieties and patterns will change.” Jackfruit saplings, once impossible here, now push through the soil. The air carries the scent of wet earth after rain, a promise of abundance. “The families in this village say that they can already see a difference in their coconut trees.”

The women still walk the village roads, but now their steps are lighter. And when a guest arrives, the tea they offer tastes of renewal. Each cup poured today is a ceremony of change, the steam carrying stories of women who outwalked thirst, their grandchildren who will never know the weight of a clay pot at dawn.

A Picture-Perfect Ending

The climate-smart farmers of the Palugaswewa Cascade

In three river basins, across seven districts, twenty cascades stand with renewed life, each a witness to Wew-Gam Pubuduwa project's reach. Hundreds of interventions have supported thousands of beneficiaries and changed countless lives. But in Palugaswewa, something extraordinary has happened.

In Palugaswewa, everything comes together. This is no accident. It is the CRIWMP model perfected—a blueprint, where every intervention interlocks.

300 families now cultivate over 620 acres fed by Palugaswewa cascade's 10 modest tanks, each holding just 15 acre-feet of water (4.89 million gallons), humble compared to Anuradhapura's giants. Yet, from these waters spring three abundant harvests each year, each acre yielding at least 100,000 rupees in profit. More remarkable than the numbers are how completely these farmers have embraced CRIWMP's teachings.

"We have been empowered with knowledge; we never knew about the cascade system. We looked at each tank separately. The trainings we have received have fundamentally changed the way we approach farming. Before the project, we farmed the way our fathers, and grandfathers before them farmed. Much of the traditional knowledge is outdated and holds us back from getting the most from our land, our tanks, and our time and effort."

Palugaswewa

D.R.M. Anura Wasantha

“We have been empowered with knowledge; we never knew about the cascade system. We looked at each tank separately. The trainings we have received have fundamentally changed the way we approach farming. Before the project, we farmed the way our fathers, and grandfathers before them farmed. Much of the traditional knowledge is outdated and holds us back from getting the most from our land, our tanks, and our time and effort,” shares D. R. M. Anura Wasantha, Chairman, Nawagovi FO.

Most farmers in the dry zone can only cultivate the main maha season from October to April. With that one annual income they must survive till next year’s North-East monsoon. This income is barely enough for their basic requirements. They have no savings, or the capital to invest in more land, machinery or manpower. It is a vicious cycle, without any collateral it is impossible for farmers to get loans, or even if they get a loan, to pay it off.

“For the yala and maha seasons we cultivate a 3-and-a-half-month paddy crop, and for the intermediate season we cultivate a shorter field crop such as mung beans, cowpea or maize.

We can only do this because we have access to accurate weather information now. We know at least 10 days in advance when it will rain,” adds Susantha Kumara, another farmer & member of the FO.

What sets Palugaswewa apart is not just the technology or the tanks, but the farmers’ hunger to learn—their willingness to trade “we’ve always done it this way” for “what if we tried?” This cultural shift, nurtured by Anura Wasantha’s steadfast leadership, has united the cascade’s families behind a shared vision: where every drop of water, every inch of soil, and every moment of labour is optimized.

“We had lost the knowledge that the forest tank (kulu wewa) was built for the wild animals. We used to use that too. Now we make sure there is enough water for the animals in that tank in the upper catchment, that keeps them away from the villages.”

“Before the project, we had always waited for the first rains to start the season,” Anura reflects. “Now since we receive the agro-met data, we plan everything in advance. For example, we have the cultivation meeting (kanna rasweema) before the 05th of October and start clearing the channels and tilling our land, so when the first rains arrive by the 15th of October, we are ready to start sowing. This saves a lot of water in our tanks. By March we have harvested our crop and gotten ready for the next season in April.”

This transformation springs from a powerful synergy of interventions working in concert. The physical upgrading of the cascade infrastructure laid the foundation, while agro-met

advisories provided the intelligence to farm with foresight rather than guesswork. Climate-smart agriculture techniques, spanning both on-farm and off-farm water management strategies, created a holistic approach to adaptive agriculture.

The adoption of precision technologies like AWD systems brought science to every drop of water used, while innovative approaches like the yāya programme's plot consolidation turned fragmented struggles into collective efficiency. Together, they redefined what's possible in dry-zone farming. Together, they have created the perfect story of success, a living system that sustains itself, season after season.

Nearby, R. Athula Ranasinghe notes how restored forests and wildlife tanks keep elephants at bay, mending a forgotten balance.

"We had lost the knowledge that the forest tank (kulu wewa) was built for the wild animals. We used to use that too. Now we make sure there is enough water for the animals in that tank in the upper catchment, that keeps them away from the villages."

Every two months, the farmers sit across from the government officials, their notebooks filled with the same pressing questions about water, crops, and the future. This is the CMC: a revolution in how decisions are made. Designed by CRIWMP as the heartbeat of the project's legacy, the CMC shattered old hierarchies. Where once farmers might wait months for a distant bureaucrat's attention, now their concerns, from broken sluice gates to disputed water shares, meet immediate solutions. What makes the CMC extraordinary isn't just its efficiency, but its vision. In these gatherings, the project's concrete achievements—repaired tanks, doubled yields—merge with something intangible: the quiet empowerment of farmers who now know their voice carries weight. This is governance reimagined, not top-down edicts, but a living dialogue where technical expertise and lived wisdom flow together like the waters through the cascade itself.

"Government officials are very involved now; they are always ready to help us. They understand the cascade systems are a world heritage, and they want to help preserve this. With the successes we've had, they also see the potential of the CMC. They help mediate any issues we have, as well."

Susantha Kumara

"Government officials are very involved now; they are always ready to help us. They understand the cascade systems are a world heritage, and they want to help preserve this. With the successes we've had, they also see the potential of the CMC. They help mediate any issues we have, as well," affirms Susantha Kumara.

"We value the technology and training we have received from the project, but the most important thing we have gained from

R. Athula Ranasinghe

this is pride. Palugaswewa is now famous, the name is well-known among government officials and farmers across the district as a model of success. This brings us so much pride and we are very grateful for the opportunity to share our learnings and experiences with anyone who is willing to adopt them," says Anura Wasantha.

As dusk settles over Palugaswewa, the tanks shimmer in the golden rays. The air hums with the rustle of paddy fields in the cool, evening breeze. This is the picture-perfect ending. For in Palugaswewa, CRIWMP has taken root: a future where water is wealth, land is generous, and communities, once vulnerable, now stand in resilience.

FROM CRISIS TO CATALYST

CRIWMP's Unexpected Role in Sri Lanka's Hour of Need

In 2022, Sri Lanka faced its most severe socio-economic crisis since independence. Foreign reserves plummeted, debt repayments were suspended, and inflation soared to over 60% with food inflation rising to 90% (Central Bank of Sri Lanka, 2022). The ripple effects were devastating. Food and fuel shortages crippled daily life, agricultural production collapsed, and over 6.3 million people, nearly 30% of the population, became food insecure (World Food Programme, 2022). The crisis disproportionately affected rural communities, especially women-led households, who were left to shoulder the burden of abandoned farmlands, unpaid care work, and vanishing incomes.

Amid this turmoil, the CRIWMP, originally designed to strengthen long-term climate resilience among Sri Lanka's most vulnerable Dry Zone communities, demonstrated its inherent flexibility by transforming into a critical humanitarian response mechanism. The project's foundational work in building adaptive capacity, through integrated water management, agricultural diversification, and community strengthening, created precisely the infrastructure and social capital needed to mount an effective emergency response.

With its expansive footprint across seven of Sri Lanka's most climate-vulnerable districts and a deeply embedded network of CSOs, CRIWMP's implementation model proved uniquely positioned to deliver rapid, localized relief. The very systems established to enhance climate resilience—community-based organizations, water user groups, and climate advisory networks—became the operational backbone for humanitarian assistance. This seamless transition from developmental to emergency response underscored how investments in long-term climate adaptation inherently create the platforms for effective crisis management when disasters strike.

The project's pre-existing interventions, from upgraded tank cascades that secured water access to established farmer collectives, meant vulnerable communities weren't just receiving aid but were accessing support through systems they already knew and trusted. What began as a programme to climate-proof lives and livelihoods became, in crisis, a vital lifeline that reached communities traditional humanitarian actors struggled to access.

Backyard poultry initiatives, for instance, addressed both nutrition and income gaps, with egg and meat prices having surged by 400% in just six months. With support from the Government of Japan, the Japan Supplementary Budget (JSB) project was launched to revitalize backyard poultry farming. Over 8,000 women from smallholder farmer families were trained and supported with chicks, feed, and coops, enabling them to generate income and

improve household nutrition. The project's robust infrastructure enabled the swift establishment of 13 hatcheries, 04 mini brooder facilities, 09 registered feed production units, and the distribution of 8,000 chicken coops and chicks to vulnerable households. This initiative alone reached 8,500 women smallholders as direct beneficiaries and indirectly supported 32,000 more across the Dry Zone.

In parallel, CRIWMP facilitated the procurement and distribution of 200 metric tons of maize seeds through a partnership between UNDP and the Japan International Cooperation Agency (JICA), addressing critical shortages in livestock feed and maize-based food products like Thriposha and Samaposha. This intervention helped stabilize food supply chains and supported the livelihoods of thousands of farmers during the maha cultivation season.

The Royal Thai Embassy also contributed to this effort by supporting the procurement of additional maize seeds, reinforcing the resilience of the animal feed industry and ensuring continuity in maize-based nutrition programmes.

Additionally, funding from the Government of Luxembourg through the UNDP Funding Window played a pivotal role in sustaining these community-based interventions, reinforcing CRIWMP's ability to deliver timely, targeted support to the most vulnerable.

The Citi Foundation's LKR 70 million contribution further amplified CRIWMP's reach. By enabling the cultivation of 2,600 acres of previously uncultivated land, this initiative supported 5,200 vulnerable farmers and indirectly benefited over 23,000 individuals. Farmers were encouraged to diversify into cash crops like cowpea and mung beans, which offered higher market returns and improved food security. The projected income boost of LKR 150,000 per farmer over just 2.5 months translated into a collective income increase of LKR 780 million.

These interventions were not merely stopgaps, they were seeds of transformation. Stories like that of Lakmali, a woman farmer from Polonnaruwa who turned a barren plot into a thriving roadside vegetable business, and that of Dhanushka, the undergraduate poultry farmer, illustrate how CRIWMP's climate-smart foundations became a catalyst.

By integrating emergency relief with long-term resilience strategies, CRIWMP helped communities not only survive the crisis but begin to rebuild with dignity and purpose.

The succeeding stories capture the voices of those who turned adversity into opportunity—farmers, entrepreneurs, and everyday heroes who, reclaimed their livelihoods and reimagined their futures. Their stories are a testament to the power of localized action, the foresight of climate-smart development, and the enduring strength of community in the face of crisis.

The Undergraduate Backyard-Poultry Farmer

Family, education, business and community: all-in for the big win

For most of the year, Sri Lanka's Northern and Eastern territories are a study in austerity—arid & barren. But when the rain comes, for a brief window of the year, the lands morph into luscious, fertile farmland. Communities come to life with hope for an abundant harvest. It's fleeting magic, this transformation, and for generations, it was enough.

Now, the rains are fickle. The old rhythms are breaking, and with them, the patience of the young. Many move to the cities, chasing steady paychecks and greener pastures. But Dhanushka stayed. He chose instead to build a business in his village that would support him, his family and help the local economy. At 28, a young man in modern times, this was not Dhanushka's first career choice; he contemplated looking for a job, however, the overwhelming desire to be independent outweighed the promise of security and stability.

He moves through his 3-acre plot; the land was his father's. The soil here is dense and warm underfoot, smelling of dry hay and the sharp tang of chicken feed. The birds themselves are

a riot of sound—clucking, scratching, flapping in the dust. Their feathers ruffle in the breeze.

"People would say I farm chickens because I was uneducated." The irony is rich. With a monthly profit of LKR 65,000 from his business, Dhanushka balances finances as a married man, funding his younger brother's education, and supporting his family all while reading for his degree in Plantation Management at the Wayamba University.

"People would say I farm chickens because I was uneducated."

But success didn't come easy. His first attempt was a graveyard of hope. 30, 40 birds stiff and lifeless, their small bodies lost to disease.

Then came the JSB project, a lifeline wrapped in training and technology. Suddenly, he had an incubator humming with potential, 528 eggs at a time. The "Strengthening Smallholder Farmers and Micro/Home-Based Agriculture Industries for Enhanced Food & Livelihood Security for Sri Lanka" project gave him 68 healthy birds, a chicken coop and a high-capacity incubator. The difference was night and day.

“Before the JSB project, many people sold infertile eggs to me,” he admits. Now, mortality rates have plummeted. Only 10% of his chicks are lost, mostly to the damp cruelty of unseasonal rains. But even then, Dhanushka adapts. He is enterprising. Even during COVID-19 lockdowns and the multiple challenges it presented, he didn’t stop his operations. When fuel shortages choked the supply of feed, he ground rice polish from his paddy harvest and dried coconut into an alternative meal. When he learned soldier flies and moringa could fatten his birds for free, he started breeding them in protein-rich compost pits. A 2-acre maize field rustles nearby; stalks tall and golden, another piece of his puzzle.

Dhanushka’s business is growing by the day and his attitude and understanding of it clearly indicate he is destined for better things. He dreams of solar power to cut electricity costs, of a truck to haul his goods, and of a home expanded for a growing family.

But for now, he stands in the heart of it all—the heat, the noise, the smell of earth and effort. His future is here, in the dust and the sweat and the stubborn, unshakable determination of a man who refused to leave.

From Barren Fields to Fertile Farms

Lakmali’s Triumph Over Crisis

Lakmali's hands tell a story of resilience. Born to onion farmers in Dambulla, she spent her early 20s working in Lebanon to save her family from debt. "I was only 19 at the time, and for three years, I worked tirelessly to achieve my goal: to rescue my family from financial despair. And it paid off. I managed to reclaim our home and change my parents' lives for the better," she recalls. But when she returned to Sri Lanka and settled in Kithuluthuwa, Polonnaruwa, new challenges emerged. Barren fields, erratic rains, and a husband's unstable income. Yet hope emerged when villagers built an irrigation tank. "We tilled 3.5 acres together with my in-laws," she says. Her roadside vegetable stall, selling produce at Rs 50 per 500g, became their livelihood, freeing them from debt for years.

"We learned how to cultivate crops year-round by relying on efficient water use. The tools provided by UNDP—buckets, organic fertilizer-making tools, and drip irrigation systems—were invaluable. They transformed our fields into flourishing gardens."

Then in 2019 CRIWMP added another layer of support, in the form of various plants such as pomegranate, bananas, mangoes, and coconut. Beyond the tangible plants, CRIWMP provided invaluable technical advice on water-efficient cropping, producing organic fertiliser, identifying crop diseases, and safeguarding against pests. The most transformative aspect of this support was the shift in mindset fostered among farmers like Lakmali. "We learned how to cultivate crops year-round by relying on efficient water use. The tools provided by UNDP —buckets, organic fertilizer-making tools, and drip irrigation systems—were invaluable. They transformed our fields into flourishing gardens," she said, highlighting how the support provided has reshaped her journey.

Then came the economic crisis.

It was the 2023 intervention by UNDP's Funding Window, supported by the Government of Luxembourg, that became her lifeline. Amidst the crisis, she was introduced to backyard poultry farming. "Starting with just 20 chicks, my poultry venture has been a blessing. Each day, I gather about ten eggs, which has been a great source of nutrition for my children," Lakmali shares warmly. "Now, I receive orders several times a week for 30-40 eggs, which I sell at 50 rupees each. It's heartening that our eggs are even making their way to Colombo through a school bus driver who buys 100 eggs every other day from our village."

"Starting with just 20 chicks, my poultry venture has been a blessing. Each day, I gather about ten eggs, which has been a great source of nutrition for my children."

Today, her roadside stall thrives, earning Rs. 2,000 daily, a significant rise from the Rs. 500 she used to earn before—a lifeline during inflation. As president of the Pubudu Grama Shakthi Society, she now trains other women to weather storms.

"Thanks to UNDP Funding Windows' support, the society has received crucial promotional materials for the roadside market. This has helped us attract more customers," Lakmali reflects.

Her journey proves that with the right support, even the most barren soil can yield abundance.

Fresh Starts and New Opportunities

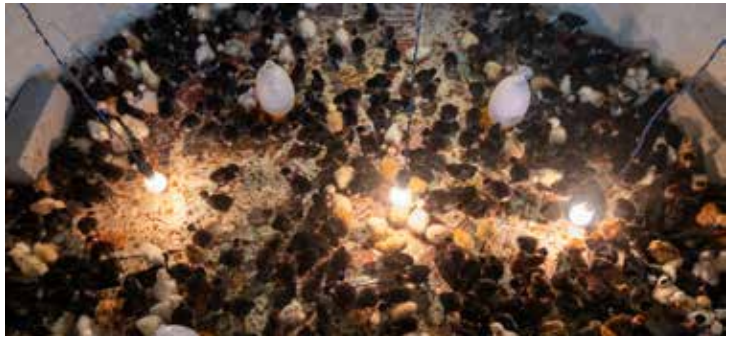
Providing the means for self-employment, for rural women in Mannar

When the monsoon arrives in Mannar, it transforms the landscape. For this brief window luscious hues of green dance, beckoning a season of planting, harvest and abundance. But for rural women like Kalimuttu Selvi, these rains have never been enough to sustain a year-round livelihood. Like most in this region, her family has lived at the mercy of seasons, her husband taking whatever agricultural labor he can find, their income vanishing like the monsoon rains when the dry months return. Since 2019 life has been very difficult for the people of Sri Lanka in general. However, the global pandemic and the socio-economic collapse of the country have further exacerbated the bleak living conditions for people in underdeveloped rural areas of the island.

Then came an opportunity that changed everything.

With the support of the Government of Japan through the JSB, UNDP Sri Lanka, a rapid-response project took root: empowering women with poultry farming as a lifeline, both for income and nutrition. In just six months, the initiative delivered healthy chicks, coops, and vital training to women like Selvi, turning backyards into businesses.

"I've always raised a few hens, only a handful at a time," says Selvi. "But with the new training I've received I think I can get a much better outcome this time."



The long-dormant LIBCO Hatchery, renovated and restocked, now serves as a hub, supplying eggs and chicks to beneficiaries while employing locals like Selvi, who earns a steady income for the first time.

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Nearby, T. Jayaseeli surveys her thriving flock with the sharp eye of a woman who has rebuilt her life from nothing. A conflict survivor, she spent 12 years in an Indian refugee camp, breaking stones in quarries to survive. Her homestead is quite ramshackle – her house has walls that only reach up to about two feet, tin sheets cover the roof, and a single room makes up her complete living space. But she proudly claims that she built it with her own two hands. Her garden is a delight; she rears turkeys and chickens and grows a variety of vegetables – for all means and purposes she is quite self-sufficient. Jayaseeli was selected as a cluster leader for the beneficiaries in the area. Her stalwart attitude and resilient nature would ensure anyone who met her knew that she was a born leader. She too received 20 chicks and a chicken coop from the project. With guidance from the project team, she has built an azolla pond which provides a feed supplement for her poultry birds. For now, she sells her produce at her own small shop by the roadside. She uses the training she received to the fullest to guarantee she maximizes the produce from her small backyard poultry farm.

What makes this intervention remarkable isn't just the coops or the chicks, it's the ownership it instills. Women buy their own feed and vaccines, treating their flocks not as charity but as

Kalimuttu Selvi

investments. The hatchery's aero filter, providing clean water, even generates extra income, excess sold at 4 rupees a liter to neighbors.

For Selvi, Jayaseeli, and countless others, this project has offered more than food security. It's given dignity, knowledge, and a fighting chance.

Seeds of Resilience

How Mannar's farmers are writing a new future

In the lush landscapes of the Madhu area in Sri Lanka's Mannar District, a resilient community of farmers has emerged from the ashes of a devastating conflict that spanned three decades. Once the rice bowl of Sri Lanka, Mannar's fields had become symbols of loss—of harvests, of hope, of futures.

A farmer deeply rooted in the paddy cultivation of the Northern Province, Ajanthan vividly recalls the hardships his community faced in the aftermath of the conflict and subsequent resettlement. Starting their livelihoods from scratch was an arduous task, but with unwavering determination, the farmers came together and established a seed bank, becoming a beacon of resilience for the entire division.

"After the difficult process of resettlement, we were then faced with the daunting task of rebuilding our lives from scratch," recalls Ajanthan. "Yet, fueled by the unwavering courage that defines our farming community, we joined hands and embarked on the journey of cultivation once more," he added, filled with determination.

When the economic crisis hit, farmers like Ajanthan watched their lifelines wither once more: no fertilizers, no supplies, no recourse. "As we found ourselves unable to provide the necessary supplements to our crops on time, we witnessed the heartbreaking sight of our once thriving fields gradually succumbing to decline," expresses Ajanthan, his voice heavy. "The helplessness we experienced was truly overwhelming, as it seemed there was no way for anyone to come to our aid."

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Through support from UNDP Sri Lanka's Private Sector Giving Facility, a consortium of partners, which included the Citi Foundation, seeds arrived, not just as planting material, but as a radical act of faith in these farmers' ability to rebuild. The impact was immediate. Ajanthan's first harvest of black gram yielded a 99% profit, a figure that still makes him shake his head in wonder. "The arrival of these seeds brought an immense sense of relief. In the aftermath of the crisis, we were left without any

means to re-cultivate, having lost nearly all our crops. However, I witnessed an extraordinary outcome, reaping an astonishing ninety-nine per cent profit from the bountiful harvest."

These farmers, who had already formed a community seed bank after resettlement, didn't just take—they gave back. Ajanthan contributed portions of his harvest to the bank, ensuring his neighbors could plant too. Others diversified into green gram, peanuts, and cowpea, turning survival into strategy.

The numbers tell one story, profits, yields, food security. But walk through these fields at dusk, and you'll hear the deeper truth: children laughing over meals grown from their own soil, farmers sharing laughter over a bountiful harvest, the quiet pride of people who've outlasted war and crisis to feed their families against all odds.

A NEW PARADIGM FOR RESILIENT COMMUNITIES

The challenges facing the vulnerable agrarian communities can no longer be met by indigenous knowledge alone. Climate change demands innovation, modern techniques, technology, and a broader understanding of the global best practices.

Yet this transition must be guided by respect. Traditional wisdom is not to be discarded, but refined, adapted with sensitivity, inclusivity and a deeper understanding of local realities.

At every stage CRIWMP has engaged communities as partners. We have engaged them with a conscious and intentional effort to ensure inclusivity, be it regarding gender, ethnicity, religion, caste or disability. Through awareness programs, hands-on training, and patient dialogue, we bridged the gap between external expertise and local knowledge, empowering communities to make informed decisions for their future.

This project stands on the shoulders of decades of climate adaptation efforts. But where past initiatives often worked in

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isolation—focusing solely either on a community-based approach or an ecosystem-based approach—CRIWMP fused both, creating a model that is as sustainable as it is transformative. The results speak for themselves: lives changed, landscapes restored, and resilience built from the ground up. The countless numbers of lives this project have changed, and the proven sustainability of these interventions stand testament to the project's ingenuity and vision.

Perhaps most importantly, CRIWMP has redefined integrated water resource management. The standard practice before CRIWMP was top-down; plan at a national or provincial level and gradually take it to the ground. In its place is a new paradigm. CRIWMP chose to first engage communities. CRIWMP began with the communities, centering on their needs, and championing their agency.

The work is far from over. Climate adaptation is a relentless process, and the dry zone's communities will face new trials in the years ahead. But the lessons of CRIWMP, its methods, its successes, and its commitment to inclusivity, must endure. We hope that the government can incorporate the lessons learnt through the

project into day-to-day development planning, ensuring that resilience becomes a way of life, not just a project outcome.

As UNDP, we take pride not only in shaping policy, but in the soil-stained work of implementation. We believe that true progress is found in the fields and villages where the most vulnerable live. It is at the grassroots, that we learn the most vital lessons, where the most meaningful change begins, this is where the essence of policymaking is. It is from the ground-level that we learn the perspectives and realities of the most vulnerable communities and help design policies which truly serve them.

CRIWMP has shown what is possible when communities are trusted, equipped, and inspired to lead. This is the legacy we leave behind: not just stronger systems, but a brighter belief in what people can achieve when given the tools to thrive.

The journey continues.

Glossary

API	Application Programming Interface
AWD	Alternate Wetting & Drying
AWFS	Advanced Water Filtration System
CBOs	Community Based Organisation
CKDu	Chronic Kidney Disease of Unknown Aetiology
CMC	Cascade Management Committee
CRIWMP	Climate Resilient Integrated Water Management Project
CWSS	Community Water Supply Scheme
DNCWS	Department of National Community Water Supply
FOs	Farmer Organizations
GCF	Green Climate Fund
JICA	Japan International Cooperation Agency
JSB	Japan Supplementary Budget
NF	Nano Filtration
NWSDB	National Water Supply & Drainage Board
PHI	Public Health Inspector
PR	Public Relations
RO	Reverse Osmosis
SAPSRI	South Asia Partnership – Sri Lanka
UNDP	United Nations Development Programme
VISs	Village Irrigation Systems
WEAP	Water Evaluation and Planning

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