

REALM Krishi

A Rural Intelligence Platform for India's Smallholder Farmers

AI advisory · Satellite crop intelligence · Carbon MRV · Weather alerts · WhatsApp-first

DUAL-ANCHOR ALIGNMENT · v1.1 ADDENDUM

Two reference frames, one platform.

Version 1.1 introduces a second strategic anchor alongside Victoria's India Strategy 2025–30: the Austrade × ThinkAg AgTech Business Opportunities Report 2026. The body of the whitepaper (Sections 03–11) is unchanged. This addendum re-frames Section 08 around dual-anchor alignment, five-pillar coverage sequencing, and the Knowing → Planning → Doing facilitation arc set out in Section III of the Austrade × ThinkAg report.

PREPARED BY

REALM Group Global

May 2026 · Version 1.1 (dual-anchor)

In dual-anchor alignment with:

Anchor 1 — Victoria's India Strategy: Our Shared Future 2025–30

Anchor 2 — Australia–India AgTech Business Opportunities Report 2026 (Austrade × ThinkAg)

Concept paper for prospective government, registry, investor and research counterparties.

DUAL-ANCHOR ALIGNMENT — ADDENDUM TO SECTION 08

From one anchor to two — sequencing the bilateral alignment.

This addendum re-frames the strategic alignment originally set out in Section 08. REALM Krishi remains in direct alignment with Victoria's India Strategy 2025–30 (Anchor 1) — and now operates explicitly within the bilateral facilitation framework set out in the Austrade × ThinkAg AgTech Business Opportunities Report (Anchor 2, published April 2026). The two anchors are complementary: Anchor 1 defines the sub-national strategic intent; Anchor 2 defines the national facilitator stack and five-pillar sectoral taxonomy.

FIVE-PILLAR COVERAGE SEQUENCING (ANCHOR 2)

PILLAR	NAME	STATUS	KRISHI MAPPING
P1	Precision AgTech	Active Y1+	MO1 AI Advisory · MO2 Satellite · MO5 Weather — shipping from pilot.
P2	ClimateAgTech	Active Y1+	MO3 Climate-Smart · MO4 Carbon MRV — first issuance Y2–3.
P3	AgTech Supply Chain	Y2–3 onboarding	FPO logistics, traceability, marketplace primitives via MO6 as the FPO footprint scales.
P4	AgBiotechnology	Y4–5 expansion	Sequenced via the Bengaluru engineering hub and the joint-research lane (La Trobe Launchpad, UQ QAAFI).
P5	Ag-Allied Sectors	Y4–5 expansion	Livestock, dairy, poultry, aquaculture — built on the same advisory + MRV primitives, deployed with Indian cooperatives.

FACILITATION ARC — KNOWING → PLANNING → DOING (ANCHOR 2, SECTION III, pp.68–72)

Phase 1 · Knowing (Y1)

Contextual market entry via evokeAG, growAG, Austrade South Asia, ThinkAg regional partners, and Indian FPO networks. Each Krishi rollout phase assumes a 12–18 month gestation window for trust-building and contextual adaptation.

Phase 2 · Planning (Y2–3)

Co-creation and soft-landing via GRAFT/PropaGATE (Beanstalk + T-Hub + ThinkAg), with bilateral R&D scaffolding from RISE (AIM + CSIRO) and Series A blended capital from patient co-investors.

Phase 3 · Doing (Y4–5)

Institutional alignment at scale: joint-research lane with La Trobe Launchpad × BBC and UQ QAAFI; downstream institutional capital via Cicada and Intellectap SSAGA.

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May 2026

In alignment with Victoria's India Strategy: Our Shared Future 2025–30

Concept paper for prospective government and institutional partners.

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ABOUT THIS DOCUMENT

This whitepaper describes the proposed REALM Krishi platform — its architecture, methodologies, and strategic positioning relative to the Victorian Government's India Strategy Our Shared Future 2025–30. It is a concept document for prospective government and institutional partners. Forward-looking statements are labelled as target or projected; partners listed as aspirational or in progress are not yet contracted.

01 Executive Summary

REALM Krishi is a proposed rural intelligence platform purpose-built for India's 146 million smallholder farmers. It unifies multilingual AI advisory, satellite-derived crop intelligence, weather forecasting, and a Carbon MRV (Measurement, Reporting and Verification) stack into a single WhatsApp-first experience, with institutional dashboards for Farmer Producer Organisations (FPOs), state agriculture departments, and project developers.

The platform is developed by **REALM Group Global**, a Victoria-based technology operator with production capability across freight, agricultural commodity tracking, marketplace, and weather intelligence systems. REALM Krishi extends this stack into Indian agriculture, where the combination of low-bandwidth UX, vernacular NLP, remote sensing, and rigorous MRV is underserved by current incumbents.

Why now. Three structural shifts converge in 2026. First, the Australia–India Economic Cooperation and Trade Agreement (AI-ECTA, Dec 2022) and the Comprehensive Strategic Partnership (2020) lower trade friction for Australian agri-tech entering Indian markets. Second, India's Digital Personal Data Protection Act (2023) and the maturation of digital public infrastructure (Aadhaar, UPI, ONDC, AgriStack) create the rails for scalable farmer-facing services. Third, voluntary carbon markets — under Verra VM0042 and Gold Standard methodologies — now accept smallholder-aggregated Improved Agricultural Land Management projects, unlocking new farmer revenue.

The Victorian connection. REALM Krishi is built in Victoria and deliberately aligned with the State Government's strategy Our Shared Future: Victoria's India Strategy 2025–30. The platform contributes directly to the strategy's agri-food, climate-smart farming, knowledge economy, gender equity, and measurement-technology priorities, and connects to the Victorian Government Trade and Investment offices (VGTIs) in Bengaluru and Mumbai as preferred channels for go-to-market and partnership.

The ask. REALM Group Global is seeking initial partnership conversations with Global Victoria, the VGTIs, NABARD, ICAR, and one to two Maharashtra or Karnataka FPOs for a 2026 pilot deployment covering 500–2,000 farmers. Sections 9–11 outline the strategic alignment, roadmap, and governance framework underpinning this request.

KEY FACTS

146M

Indian smallholder farmers
REALM Krishi is designed to serve.

4

Pillars: AI advisory, satellite intelligence, Carbon MRV, weather.

2025–30

Aligned with Victoria's India Strategy Our Shared Future.

WhatsApp

First-touch channel; multilingual voice + text from day one.

02 Problem & Opportunity

India is home to approximately **146 million smallholder farmers** — the largest farming population in the world. They produce the bulk of the country's food but capture a disproportionately small share of the value chain. Five structural problems define the operating environment: low productivity per hectare relative to global benchmarks, accelerating climate volatility, post-harvest losses of 10–25% across staple crops, weak last-mile market access, and the absence of credible Measurement, Reporting and Verification (MRV) infrastructure to monetise climate-positive practices.

The bilateral opportunity. The Australia–India Economic Cooperation and Trade Agreement (AI-ECTA, Dec 2022) and the Comprehensive Strategic Partnership (2020) materially reduce tariffs and friction for Australian agri-technology exports. India remains in the top 10 export destinations for Victorian grain, dairy, and horticultural products (Victoria's India Strategy 2025–30, p.20). The Victorian Government operates two Victorian Government Trade and Investment (VGTI) offices in India — Bengaluru and Mumbai — providing in-market channels for engagement.

Pain points and REALM Krishi response

Indian agricultural pain point	REALM Krishi response	Section
Fragmented agronomic advice; advisory not available in local language or voice	Multilingual voice + text AI advisor on WhatsApp; voice-first for low-literacy users	§04
No accessible field-level crop monitoring; reliance on visual inspection	Sentinel-2 + Landsat 8/9 derived NDVI / NDWI / NDMI at plot polygon level	§05
Climate-positive practices unmonetised; no smallholder MRV at scale	FPO-aggregated Verra VM0042 / Gold Standard MRV with farmer-majority revenue split	§06
Generic weather forecasts; no actionable irrigation or severe-weather alerts	IMD + ECMWF + NOAA GFS ensemble; severe-weather push and WhatsApp alerts	§07
Opaque data practices; little farmer agency over personal and farm data	DPDP Act 2023-aligned consent model; farmer owns data; opt-out by default for aggregation	§07
Weak market access; pricing asymmetry against mandis and intermediaries	Daily mandi price feeds; FPO-level demand aggregation; institutional buyer dashboards	§03

Sources: Government of India agricultural census; Victoria's India Strategy 2025–30 (pp.20, 25); FAO post-harvest loss benchmarks.

03 Platform Architecture

REALM Krishi is structured as three logical layers — **data ingestion**, **intelligence**, and **delivery** — each independently versioned and horizontally scalable. The architecture is cloud-native, India-resident by default, and built on managed services to minimise operational overhead in the early deployment phases.

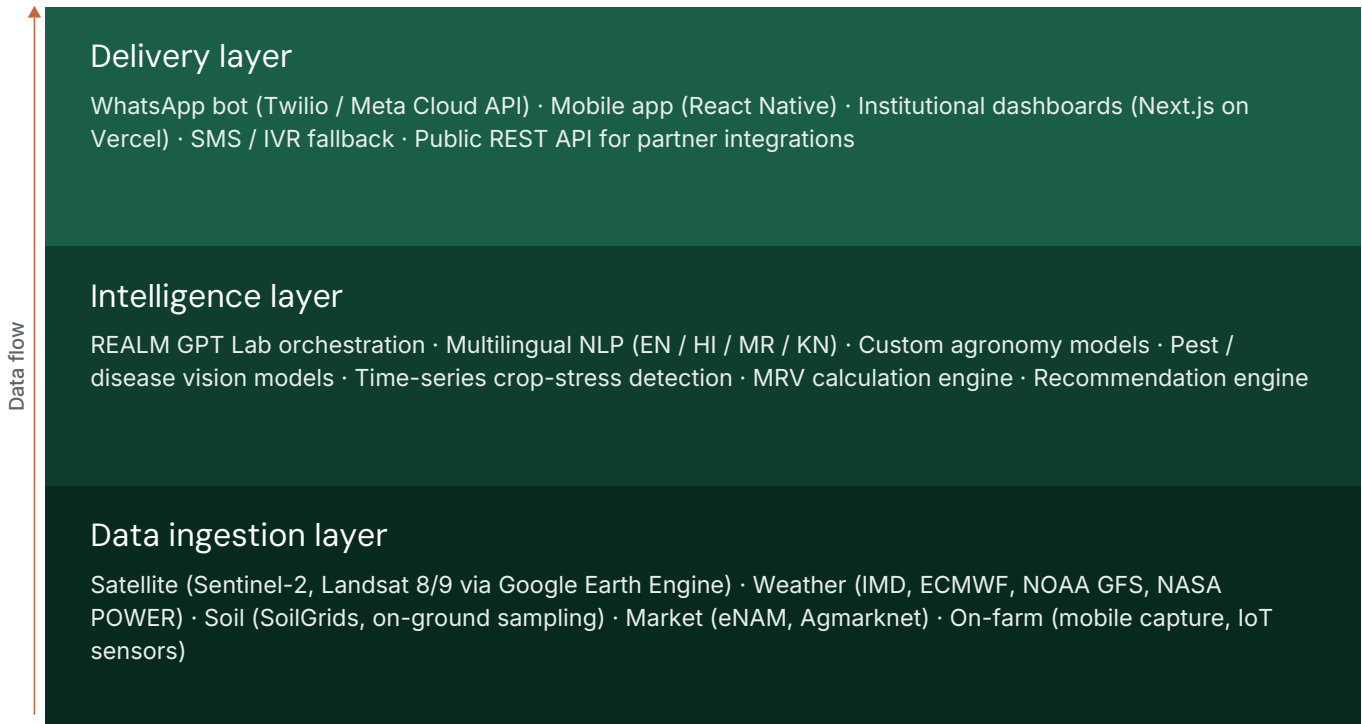


Figure 1. Three-layer logical architecture. Data flows up from sources, through intelligence orchestration, into farmer- and institution-facing surfaces.

Technology stack

Frontend & web: Next.js on Vercel for the marketing site and institutional dashboards; React Native for the farmer mobile application.

Backend & data: Supabase (Postgres, Auth, Storage, Row-level Security) hosted in the Mumbai region by default. Background workers and scheduled MRV jobs run on Railway. Redis for cache and rate limiting.

Geospatial: Google Earth Engine for Sentinel-2 and Landsat 8/9 imagery processing; PostGIS for plot polygons and field-level analytics.

Messaging: Twilio and Meta WhatsApp Cloud API for the farmer bot; Twilio Programmable Voice for IVR fallback in low-bandwidth zones.

Payments: Stripe for institutional billing; Razorpay/UPI for farmer-side disbursements where applicable (carbon revenue, FPO payouts).

Multilingual NLP

REALM Krishi launches with full conversational support in **English, Hindi, Marathi, and Kannada**, prioritising the languages of the two target pilot states (Maharashtra and Karnataka) and the bilingual interfaces of Indian agricultural extension. The system uses a small-LLM orchestration pattern: a language detector routes the user message, a translation layer normalises to an internal pivot language for retrieval, and a generation layer responds in the user's original language.

Voice first. Many target farmers have low literacy. The default interaction is voice notes on WhatsApp — speech-to-text via on-device or edge inference, response via cached audio segments and synthesised voice.

Roadmap languages. Telugu, Tamil, Punjabi, Gujarati, Bengali, and Odia targeted in years 2–3 (see \$09).

03 Platform Architecture

continued

Service boundaries and responsibilities

Service	Primary responsibility	Tech	Owner
realm-web	Marketing site, gated downloads, partner portal entry	Next.js / Vercel	Platform
realm-api	Farmer accounts, plot registration, advisory orchestration	Supabase Edge / Postgres	Platform
realm-bot	WhatsApp conversation manager, voice-note ingestion	Node.js worker / Meta Cloud API	Conversational
realm-geo	Satellite ingestion, index computation, anomaly detection	Google Earth Engine / Python workers	Geospatial
realm-weather	Ensemble forecasting, alert rules, push delivery	Python / Railway scheduler	Weather
realm-mrv	Baseline and activity data; emission-factor application	Python / Postgres / verifier API	MRV
realm-dash	Institutional dashboards for FPO, state dept, project developer	Next.js / Vercel / Supabase	Platform

Non-functional requirements

Latency. Median WhatsApp response < 3 seconds for text queries; < 8 seconds for voice queries including transcription and synthesis.

Availability. 99.5% target for the conversational bot during the pilot phase; 99.9% target for institutional dashboards at scale.

Offline tolerance. Mobile app caches the most recent advisory, weather, and plot imagery for read-only access in low-connectivity zones.

Observability. Centralised logging, error tracking (Sentry), and MRV-specific audit trails retained for the lifetime of the carbon project plus the verification body's retention requirement.

Data residency. Primary storage in Supabase Mumbai region; cross-border data flows to Australia are limited to aggregated, non-personal analytics and are disclosed in the farmer consent flow (see §07).

04 AI Advisory Module

The AI Advisory Module is REALM Krishi's most farmer-visible surface — a multilingual voice and text agricultural assistant delivered through WhatsApp and the mobile app. It is built on the **REALM GPT Lab** orchestration framework, which combines retrieval over curated agronomic knowledge bases with task-specific models for pest identification, market price interpretation, and government scheme navigation.

Coverage

Sowing windows. Crop, variety, and locality-aware sowing-date recommendations driven by soil moisture, temperature, and ensemble weather forecasts.

Pest and disease identification. Image upload via WhatsApp; vision classifier across the dominant pest / disease classes for cotton, soybean, rice, wheat, sugarcane, and selected horticultural crops.

Input recommendations. Nutrient and irrigation guidance calibrated to soil tests, crop stage, and field-level remote-sensing indices.

Government scheme navigation. Eligibility check, document checklist, and step-by-step guidance for major central and state schemes (PM-KISAN, PMFBY, KCC, state-level subsidy programmes).

Market price advisory. Daily mandi prices (Agmarknet / eNAM) with trend analysis and sell / hold suggestions at the FPO level.

Crop rotation planning. Multi-season rotation recommendations optimised for soil health, market demand, and MRV-eligible practices.

Knowledge base

Curated and versioned from authoritative Indian agricultural sources: ICAR research publications, ICRISAT extension materials, state agricultural university bulletins, Krishi Vigyan Kendra (KVK) field guides, and FPO-validated best-practice playbooks. Each retrieved chunk is tagged with source, date, and applicability (crop, agro-climatic zone), and surfaced as an inline citation in the farmer-facing response.

Guardrails

Source citations. Every substantive recommendation surfaces a human-readable source line in the conversational response.

Human fallback. When the model's confidence falls below a calibrated threshold, or when the topic is high-risk (regulated chemicals, livestock health), the conversation is escalated to a partnered extension officer or the relevant KVK.

Regulated chemicals. The advisor will not recommend specific dosing of regulated pesticides or veterinary medicines without local-authority context. Recommendations follow CIB&RC and state pesticide guidelines.

Bias and equity. System prompts include gender-equity instructions; advisory delivery is structured to be accessible to women farmers and household decision-makers explicitly (see §08 Gender Equity).

EXAMPLE INTERACTION

Farmer (voice, Marathi): “My cotton leaves have orange spots. What should I do?” **REALM Krishi:** Image requested → vision model identifies Alternaria leaf spot with 87% confidence → returns Marathi voice and text response describing IPM-first action, cultural controls, and an ICAR-cited fungicide option with dosing — flagged for KVK confirmation as the chemical recommendation crosses the regulated-input guardrail.

05 Satellite Crop Intelligence

Imagery sources

REALM Krishi combines **Sentinel-2** (10–20 m resolution, 5-day revisit at the equator with the A+B constellation) and **Landsat 8/9** (30 m, 16-day revisit per satellite, ~8-day combined) to balance spatial detail and temporal frequency. Both data sources are ingested through Google Earth Engine, which provides global, analysis-ready collections and managed cloud storage.

Indices computed

NDVI — vegetation vigour and biomass proxy.

NDWI — vegetation water content and irrigation status.

NDMI — canopy moisture index, useful for irrigation timing.

SAVI — soil-adjusted vegetation index for early-stage and sparsely-vegetated fields.

EVI — enhanced vegetation index with improved sensitivity in high-biomass regimes (sugarcane, banana).

Spatial granularity

Outputs are computed at **plot polygon** level (drawn by the farmer or the FPO field officer during onboarding) and aggregated to FPO, village, sub-district, district, and state levels for the institutional dashboards. Aggregations preserve farmer privacy: the dashboards never expose individually-attributable plot data without explicit consent.

Decisions enabled

Crop stress detection. Departures from the historical NDVI baseline at the plot level trigger an in-app alert and an automated investigation flow (weather correlation, irrigation status, pest pressure).

Irrigation timing. NDMI-derived canopy moisture combined with rainfall forecasts and crop-stage models produces an irrigation-recommendation calendar by plot.

Harvest readiness. Time-series shape analysis of NDVI / EVI identifies senescence onset and a recommended harvest window.

Yield forecasts. Crop- and region-specific regression models map the growing-season NDVI profile to a yield estimate; outputs are surfaced as a target range with explicit uncertainty bounds.

Methodology

Cloud masking via the Sentinel-2 Scene Classification Layer (SCL) and the QA bands on Landsat. Pixels flagged as cloud, cloud shadow, or saturated are excluded prior to index computation.

Time-series smoothing using a Savitzky–Golay filter to remove residual noise and produce a continuous index curve for each plot.

Anomaly detection compares each observation against the plot-specific historic baseline (rolling 3-year mean and standard deviation by day-of-year), with anomalies surfaced when the standardised departure exceeds a configurable threshold (default $\pm 1.5\sigma$).

06 Carbon MRV Methodology

Smallholder agriculture sits at the centre of India's climate mitigation opportunity. REALM Krishi's MRV stack is designed to bring smallholders into voluntary carbon markets at scale by aggregating practice changes across FPOs and applying internationally-recognised methodologies. The objective is twofold: (i) deliver verifiable greenhouse-gas outcomes, and (ii) return the majority of the resulting revenue to the farmers whose practice changes generate it.

Target methodologies

Verra VM0042 — Methodology for Improved Agricultural Land Management. Provides a tested pathway for soil-carbon and N₂O emission reduction projects under the Verified Carbon Standard.

Gold Standard for the Global Goals — Smallholder Agriculture Impact Tools, including methodologies for soil organic carbon, agroforestry, and improved cookstoves where co-benefits apply.

Activities measured

Cover cropping · Reduced or zero tillage · Crop residue retention · Agroforestry and on-farm tree planting · Biochar application · Optimised nitrogen-fertiliser use (rate, timing, placement) · Improved water management in rice (AWD — alternate wetting and drying).

Aggregation model

Smallholder plots are too small to support standalone projects. REALM Krishi aggregates participating farmers at the **Farmer Producer Organisation** level into a single project bundle — typically 1,000–10,000 farmers per bundle — sharing baseline establishment, monitoring infrastructure, and verification costs. The project developer (REALM Krishi) holds the methodology and the relationship with the verification body.

Approach: four stages

1. Baseline establishment. Pre-intervention soil carbon, cropping history, and emissions baseline derived from a combination of remote sensing (historical NDVI and land-cover analysis), spatial soil maps (SoilGrids, ICAR-NBSS&LUP), and on-ground stratified soil sampling.

2. Activity data collection. Farmer-reported practice changes captured via the WhatsApp bot and mobile app — sowing date, tillage type, cover crop, fertiliser application — with mandatory geo-tagged photos and FPO field officer spot-verification on a randomised sample.

3. Emission factor application. Country- and crop-specific Tier 2 emission factors from the IPCC 2019 Refinement, calibrated to Indian agro-climatic zones using the National GHG Inventory parameters.

4. Uncertainty quantification & verification. Monte Carlo uncertainty propagation across baseline, activity data, and emission factors; third-party validation and verification by a methodology-accredited body. Audit-grade evidence retained for the project crediting period.

Revenue split

Transparent and farmer-majority. Target allocation, subject to methodology and partner agreements: **≥ 60% farmer, ~20% project developer** (REALM Krishi — covers monitoring, methodology, working capital), **~10% FPO** (field operations, aggregation), **~10% verification body and platform fees**. Per-bundle splits are disclosed to farmers in their local language before enrolment.

All revenue figures are **target** allocations for the pilot phase and are subject to methodology constraints, verification body fees, and partner negotiation. No carbon credits have been issued at the time of this document.

07 Weather Intelligence & Data Governance

Weather Intelligence

Sources

IMD (India Meteorological Department) — primary source for India-domain forecasts, severe-weather warnings, and the gridded daily rainfall dataset.

ECMWF — global medium-range ensemble for high-skill 7–10 day forecasts; **NOAA GFS** — second ensemble member for forecast blending.

NASA POWER — multi-decadal historical weather data for crop modelling and baseline establishment in MRV.

Outputs

7-day daily forecasts at plot resolution — temperature min/max, rainfall probability and amount, wind, humidity, ET_o.

Severe weather alerts via WhatsApp push and SMS — heatwave, high-rainfall, cyclone, hail, frost — with state-specific advisory text.

30-day outlook — probabilistic temperature and rainfall tercile forecast for planning sowing, harvest, and storage.

Irrigation scheduling — combined with NDMI from §05, produces a plot-level irrigation calendar with daily updates.

Data Governance & Privacy

Data ownership and consent

The farmer owns their farm data. Plot polygons, on-farm activity data, and conversation transcripts are the farmer's property. Aggregated and anonymised use (for FPO-level analytics, MRV bundling, public research) requires explicit, granular, in-language consent captured at onboarding and renewable annually. Opt-out is available at any time without loss of access to the core advisory service.

Regulatory compliance

India — Digital Personal Data Protection Act 2023. Lawful processing basis; notice and consent; data fiduciary duties; data principal rights (access, correction, erasure, grievance).

Australia — Privacy Act 1988 and the Australian Privacy Principles.

International norms. GDPR-style principles of purpose limitation, data minimisation, and storage limitation applied as a baseline.

Security

Encryption at rest — Supabase Postgres native encryption.

TLS 1.2+ in transit — all client and service communication.

Role-based access control — least-privilege; staff access reviewed quarterly; production access logged.

Audit logs — append-only audit trail for all MRV-relevant operations and any access to personal data, retained for the longer of seven years or the carbon project crediting period.

Cross-border data flow

India-resident by default. Personal data is stored in Supabase's Mumbai region; aggregated, non-personal analytics may flow to Australia for platform development and is disclosed in the consent notice. Any cross-border transfer is subject to the standard contractual arrangements required by the DPDP Act and the Australian Privacy Principles.

08 Strategic Alignment with Victoria's India Strategy

REALM Krishi maps directly to the priorities of Our Shared Future: Victoria's India Strategy 2025–30. The table below pairs strategy text with concrete REALM Krishi capabilities.

Victoria's India Strategy 2025–30 priority	REALM Krishi contribution
"Climate-smart farming, leveraging expertise in agri-bio research and on-farm trials" (p.20)	End-to-end climate-smart practice platform: Carbon MRV, satellite-based field trial monitoring, multilingual advisory grounded in ICAR research.
"Measurement and monitoring technologies" (p.25)	MRV stack built on Sentinel-2 / Landsat remote sensing, geo-tagged activity data, and Verra VM0042 / Gold Standard methodologies.
Water management and sustainability (p.34) — Rubicon Water at NLBC, Karnataka cited as precedent	Irrigation scheduling combining NDMI canopy moisture, ET _o forecasts, and rainfall ensembles — directly complementary to Rubicon-style infrastructure.
Knowledge economy partnerships and digital cooperation (p.16)	Open-API platform; partnership pipeline with ICAR, NABARD, KVKs and Australia India Institute; published methodology and white papers.
Gender Equity Action Line (p.41)	Gender-equity charter; advisory delivery tuned for women farmers; FPO-level gender disaggregation in dashboards; women's KVK partnerships.
Agri-food trade — India in top 10 export markets for VIC grain / dairy / horticulture (p.20)	Two-way data bridge: institutional dashboards surface aggregated demand signals relevant to Victorian agri exporters via VGTI offices.
Skills and education partnerships	FPO field-officer training programme; co-developed extension curriculum with Krishi Vigyan Kendras; Victorian university research partnerships (aspirational, in early conversation).
VGTI Bengaluru and VGTI Mumbai trade channels	REALM Krishi designed to use VGTI offices as preferred channels for introductions, MoU facilitation, and partnership development.
Year 1 / Year 3 / Year 5 review cadence of the strategy (p.43)	Implementation roadmap (§09) explicitly aligned with the strategy's review windows.

VICTORIAN PRECEDENTS CITED IN THE STRATEGY

Rubicon Water — irrigation modernisation at Karnataka's NLBC (p.34). **ARRB Systems** — transport infrastructure partnership with NHAI (p.39). **SunPower Renewables** — 2023 Governor of Victoria's Export Award winner, renewable energy market entry (p.35). REALM Krishi joins this Victorian export tradition, focused on the agri-tech segment.

09 Implementation Roadmap

REALM Krishi's roadmap is structured around three horizons matching the review cadence of Victoria's India Strategy 2025–30 (p.43): Year 1 in 2026, Years 2–3 through 2028, and Years 4–5 to the close of the strategy in 2030. All farmer counts and timelines are **target** figures.

Horizon	Scope and milestones	Target metrics
Year 1 — 2026 Pilot & foundation	Pilot deployment with one or two FPOs in Maharashtra OR Karnataka. MRV baseline establishment — soil sampling, historical satellite analysis, stratified plot sampling. Product hardening: WhatsApp bot, advisory module, satellite intelligence dashboards. First MoUs signed with VGTI and FPO partners. Initial Australia India Institute and university research conversations.	500–2,000 farmers 1–2 FPO partners 1 state (MH or KA) MRV baseline complete First MoU signed
Years 2–3 — 2027–28 Scale & first issuance	Scale to five districts across the pilot state and expand to a second state. Onboard additional FPO partners. First carbon credit issuance under Verra VM0042 — projected late 2027 / early 2028. Launch additional languages — Telugu, Tamil, Punjabi, Gujarati. Raise institutional Series A (target). Aligned with the strategy's Year 3 review point.	~50,000 farmers 5 districts 2 states First issuance (Verra) Series A — target
Years 4–5 — 2029–30 Multi-state & ecosystem	Multi-state expansion across Maharashtra, Karnataka, Telangana, Tamil Nadu, Punjab, Gujarat, Madhya Pradesh. Full partner ecosystem operational — VGTIs, NABARD, ICAR, ISRO/NRSC, state ag departments, verification body. Contributing data points to the strategy's Year 5 review (2030) and the design of the successor 2030–35 strategy.	~500,000 farmers Multi-state (≥6) Full partner roster Contributing to 2030 review Sustainable unit economics

All farmer counts, dates, and capital raises are **target** figures and **projected** milestones. They are not commitments, forecasts, or offers. Pilot state, partner selection, and timing are subject to MoU negotiation.

10 Partnerships & Governance

REALM Krishi is, by design, a partnership-led platform. The success of the carbon MRV pillar in particular depends on credible institutional anchors. The lists below are **target** partners and **aspirational** relationships unless otherwise noted; no commitments are implied.

Target strategic partners (aspirational / in progress)

Victorian Government

Global Victoria · VGTI Bengaluru · VGTI Mumbai · Department of Jobs, Skills, Industry and Regions · Agriculture Victoria.

Indian central government and institutions

NABARD (National Bank for Agriculture and Rural Development) · ICAR (Indian Council of Agricultural Research) · NITI Aayog · ISRO / NRSC (National Remote Sensing Centre) · Ministry of Agriculture & Farmers Welfare.

State and field-level

State Departments of Agriculture (Maharashtra, Karnataka primary; Telangana, Tamil Nadu, Punjab in scope) · Krishi Vigyan Kendras (KVKs) · State Agricultural Universities · selected Farmer Producer Organisations.

Carbon market and verification

Verra (VCS) or Gold Standard (methodology selection in progress) · third-party validation and verification bodies accredited under the chosen standard.

Bilateral and academic

Australia India Institute · Australian university partnerships (early conversations) · Australian agri-tech ecosystem (AusBiotech, AgriFutures engagement targeted).

Governance

Corporate structure

REALM Group Global is the Australian parent. An Indian operating subsidiary is planned in the pilot phase to hold the in-market team, the MRV project contracts, and the farmer-facing relationships. The subsidiary will operate under Indian corporate, tax, and DPDP Act compliance.

Advisory board (target)

Independent advisory board with representation across Indian agriculture policy, smallholder economics, carbon markets, Victorian government, and gender-equity practice. Board appointments confirmed as the pilot enters field deployment.

Gender equity charter

REALM Krishi commits to gender-disaggregated reporting, targeted advisory delivery for women farmers, partnerships with women-focused KVKs and self-help groups, and adherence to the gender equity action line in Victoria's India Strategy (p.41).

Farmer advisory council

Standing council of farmer and FPO representatives convening quarterly. The council reviews product, MRV revenue splits, and grievance outcomes, and is the primary mechanism for farmer voice in platform governance.

Acknowledgement of Country

REALM Group Global acknowledges the Traditional Custodians of the lands on which our team works, and pays respect to Elders past and present. We acknowledge the deep agricultural knowledge of First Peoples in Australia and India alike.

11 About REALM Group Global & Contact

REALM Group Global is a Victoria-based technology operator running a family of products and operating entities — including REALM Group Freight (logistics and commodity movement), REALM Group Aus (domestic operations), and REALM Group America (North American presence).

Our full-stack engineering team builds production platforms across agricultural commodity tracking, agri-trade marketplaces, weather intelligence, and operational software for global freight. REALM Krishi extends this experience into Indian smallholder agriculture, drawing on existing IP, methodology, and engineering capacity rather than starting from a blank sheet. We build with managed infrastructure (Vercel, Supabase, Railway, Stripe, Twilio) for speed and reliability at small team scale.

Founder & CTO bio. REALM Group Global is founded and led by a hands-on technical operator with a full-stack engineering background spanning agricultural commodity systems, marketplace and auction platforms, real-time data feeds, weather and crop intelligence dashboards, and payments infrastructure. The founder serves as CTO across the group, personally architecting and shipping production platforms across Australian and US markets — and is the technical lead, product owner, and primary engineer on REALM Krishi. The operating preference is deliberate: senior code-and-product leadership at the table from day one, rather than layered through delegation. This is the same operating model that has shipped the group's freight, marketplace, and intelligence products into live commercial use.

We are deliberately small and senior. The team writes code, signs MoUs, and speaks directly with FPO partners and state officials. This document and the platform it describes are an extension of that working style.

CONTACT

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Disclaimer. This document is a concept paper prepared for prospective government and institutional partners. It is not an offer of securities and does not constitute investment advice. All forward-looking statements reflect current expectations and are subject to change. Partner organisations named in this document are **target** or **aspirational** unless explicitly described as contracted. Forward-looking numbers — farmer counts, timelines, revenue splits, capital raises — are labelled as **target** or **projected**. Sources include the Government of India, Victoria's India Strategy Our Shared Future 2025–30, Verra and Gold Standard methodology documentation, and publicly available agricultural statistics.

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