PRACTICAL MINISTRY CASE STUDY - PROJECT 1

Staff awareness on AI usage

Rural Development, Disaster management and climate change

Proposed staff training action plan

Devesh Lal
Fiji • 12 months from approval



Contents

A practical programme for headquarters, divisional and district staff

Why this programme	How we will deliver it
Background, purpose and current gaps	Training approach and practical exercises
AI uses in rural development, disaster management and climate-related work	Smart Water Security Pilot — practical ministry case study
Risks and safeguards	Activities, responsibilities and timetable
Resources, results and follow-up	Immediate next steps and responsible scale-up

Background and purpose

The need

Staff need a practical way to use AI for everyday work connected to rural development, disaster preparedness, response and climate adaptation.

The purpose

Help every staff member practise useful AI tasks, check the results and understand which information they can safely use.



Current status and issues

Initial planning assumptions to confirm through a staff survey in Month 1

Different starting points

Some officers may already use AI. Others may need help with basic access, writing prompts and checking answers.

Unclear boundaries

We need to confirm approved tools, permitted information and the review process for AI-assisted work.

Access and confidence

Training must allow for different computer skills, limited connectivity and staff who cannot attend the first session.

Gap analysis

Proposed goal: all staff receive training, with extra support where needed

Area	To confirm at the start	Target position
Staff capability	Current confidence and skills	Staff complete a checked work task
Safe use	Tools and data rules in place	Approved tools and clear guidance
Work practices	How reports and drafts are prepared	Reviewed templates for common tasks
Support	Local help and connectivity needs	A focal officer for each division

Improvement strategy

Short demonstrations, guided practice and support after training

Training focus	What staff practise
AI basics and safe use	Write a clear prompt and identify information to exclude
Disaster management	Summarise fictional flood notes into a situation report
Climate adaptation	Compare options using an approved climate reference note
Checking and sharing	Verify facts, record sources and obtain supervisor review
Hands on activity	staffs create their own website using resume and cv

Risks and safeguards

Proposed working rules for the training programme

Risk	Safeguard	Lead role
Incorrect or invented answers	Check every key fact against the source	Staff and supervisors
Sensitive information exposed	Use fictional training data and approved tools	ICT / data owners
Misleading public messages	Retain official facts and require sign-off	Disaster / communications leads
Poor access or low confidence	Small groups, buddy support and offline packs	HR / divisional focal officers
Over-reliance on AI	Keep human judgement and existing procedures	All supervisors

Specific action plan

Practical exercises based on rural and disaster-management work

Exercise	Staff output	Review before use
Flood situation report	One-page summary of fictional field notes	No added people, places or damage figures
Community advisory	Plain-language draft from an approved bulletin	Warning level, dates and instructions unchanged
Climate adaptation brief	Summary of drought, water or coastal options	Evidence, limitations and local suitability
Project planning support	Draft activities and indicators for a sample project	Officer checks feasibility and assumptions

PRACTICAL MINISTRY CASE STUDY - PROJECT 2

Smart Water Security Pilot

Drone mapping, water monitoring and AI-assisted decision support

Batiki Island • Lomaiviti Province

Proposed duration

6–9 months

Indicative budget

USD $45,000

A real example of how AI can support evidence-based work while human officers retain responsibility for decisions.




Geographical Map of Fiji Island - Where is Fiji Island
Nubu
Naduri
Labasa
Nasasa
Rabi
Ringgold Isles
Buca
Matei
Nabua
Yasawa-i-Rara
Yadua Taba
Bua
Natua
Savusavu
Yasawa Group
Yasawa
Namalata
Nacula
Nabouwalu
Bligh Water
Gunu
Yaqela
Naviti
Koro
Nakodu
Waya
Volivoli
Makogai
Tavua
Mamanuca Islands
Ba
Vatukoula
Lautoka
Ovalau
Wakaya
Mana
Levuka
Nadi
Nairai
Malolo Lailai
Viti Levu
Korovou
Batiki
Denarau
Lamiti
Nausori
Sanasana
Gau
Pacific Harbour
Sigatoka
Suva
FIJI ISLANDS
Lakeba
Tubou
Vanuavatu
Oneata
Beqa
Naroi
Vatulele
Moala
Nasoki
Moce
Kadavu Passage
Namuka-i-lau
Namaku
Daku
Totoya
Tovu
Kabara
Kadavu
Tavuki
Fulaga
Ogea Levu
Matuku
Loma
Muani

OFFICE OF THE DIVISIONAL COMMISSIONER EASTERN | SMART WATER SECURITY PILOT

SMART WATER SECURITY ACTION PLAN

Drone Mapping, Water Monitoring and AI-Assisted Decision Support

Proposed pilot: Batiki Island, Lomaiviti Province



Country
Fiji

Lead organisation
Ministry of Rural and Maritime Development & Disaster Management

Project lead
Divisional Planning Officer Eastern

Core team
Mr. M. Cama
Mr. S. Sorowale
Mr. Lal
Ms. M. Cabealawa

Proposed duration
6–9 months
from approval and confirmation of procurement and site access

Indicative budget
USD $45,000
(planning range **USD $30,000–$60,000** subject to quotations and approval)

Submission date
October 2026

1 ABOUT THE PILOT

Batiki Island relies primarily on rainwater harvesting for household and public service water needs. The island has experienced water supply difficulties affecting villages and the Government office and dwellings.

This pilot will establish a practical, low-cost water-security monitoring and decision-support system using sensors, drone mapping, digital reporting and AI-assisted analysis to provide timely, reliable information for better preparedness and coordination.



2 GOAL

Improve water-security monitoring and preparedness on Batiki Island through reliable local data, mapped water assets and human-verified decision support.

3 KEY OBJECTIVES

- Establish a verified baseline of water assets, capacity and monitoring needs.
- Map selected tanks, collection infrastructure and access points using GPS and drone imagery.
- Pilot water-level and rainfall monitoring with manual backup readings.
- Provide a simple dashboard that estimates days of supply and flags conditions for verification.
- Train government and community focal points in data collection, interpetation and equipment maintenance.
- Evaluate reliability, usability, recurrent costs and potential for replication.

4 HOW IT WORKS



1. MONITOR
Water-level sensors and rainfall monitoring at priority sites.



2. MAP
Drone and GPS mapping of tanks, collection systems, distribution assets and access points.



3. REPORT
Offline-capable digital reporting with manual readings as backup.



4. ANALYSE
AI-assisted analysis identifies trends and flags possible shortages (human-verified).



5. ACT
Alerts, verification and escalation to support maintenance and emergency coordination.

5 SCOPE

IN SCOPE

- Priority water assets and storage on Batiki.
- Monitoring, mapping, digital reporting, alerting, training and evaluation.
- Coordination with water technical agencies, disaster-management authorities, district officers and community representatives.

OUT OF SCOPE

- Major civil works, new water sources, large-scale tank replacement or full network rehabilitation (unless separately funded).
- Autonomous AI decisions about emergency declarations, water allocation or vessel dispatch.

6 EXPECTED OUTCOMES

- Earlier identification of water risks
- Verified and mapped water assets
- Better-informed decisions on maintenance and emergency logistics
- Trained local government and community focal points
- Evidence for costs and replication in other Eastern Division communities

7 IMPORTANT NOTES

- This project is an information, preparedness and coordination intervention.
- It will not, by itself, repair defective infrastructure, increase storage capacity, guarantee rainfall, or replace established emergency response arrangements.
- Baseline findings will guide the final equipment design and confirm whether the proposed budget is sufficient.



What the pilot will do

A low-cost monitoring and decision-support system for remote island water security

The problem

- Batiki relies mainly on rainwater harvesting.
- Water information can be fragmented or delayed.
- Shortages depend on rainfall, storage, demand and asset condition.

Data-to-decision workflow

1	2	3	4	5	6
Map	**Monitor**	**Report**	**Calculate**	**Assist**	**Act**
GPS / drone asset register	Water levels + rainfall	Offline-capable field forms	Estimated days of supply	AI summaries + anomaly flags	Officer verifies and responds

Transparent calculation example

Estimated days of supply = usable stored water ÷ estimated daily demand

Example from the plan: 15,000 L ÷ 2,500 L/day = 6 days. Local values must be verified before use.

What AI adds

- Summarise trends
- Highlight anomalies
- Help prepare briefings and reports
- Explain the data and assumptions behind alerts

Responsible AI and data governance

The pilot is designed to support officers — not replace operational judgement

AI MAY SUPPORT

- Trend summaries from water-level and rainfall data
- Anomaly flags for readings that need checking
- Draft situation updates and management briefs
- Clear explanations of data freshness and assumptions

AI MUST NOT

- Declare an emergency by itself
- Allocate water or dispatch vessels automatically
- Treat a missing reading as proof of a shortage
- Publish sensitive locations or personal details

Human verification	Audit trail	Controlled access	Manual fallback
A designated officer checks alerts before action.	Readings, edits, alerts and actions are recorded.	Collect only necessary data and protect sensitive locations.	Field checks and reporting continue when the system is unavailable.

Implementation, roles and schedule

Clear ownership is built into the pilot from the start

Who does what

Divisional Commissioner Eastern / Project Lead	Coordination, approvals, budget oversight and reporting
Technical Focal Point / System Maintainer	Technical design, data quality, access and maintenance
Water technical agency	Validate capacities, condition, sensor placement and demand assumptions
NDMO / disaster focal points	Align alerts with preparedness and escalation arrangements
District / community focal points	Manual readings, local verification and feedback
Drone / technology provider	Mapping or system delivery, training and support documentation

Indicative 6–9 month pathway

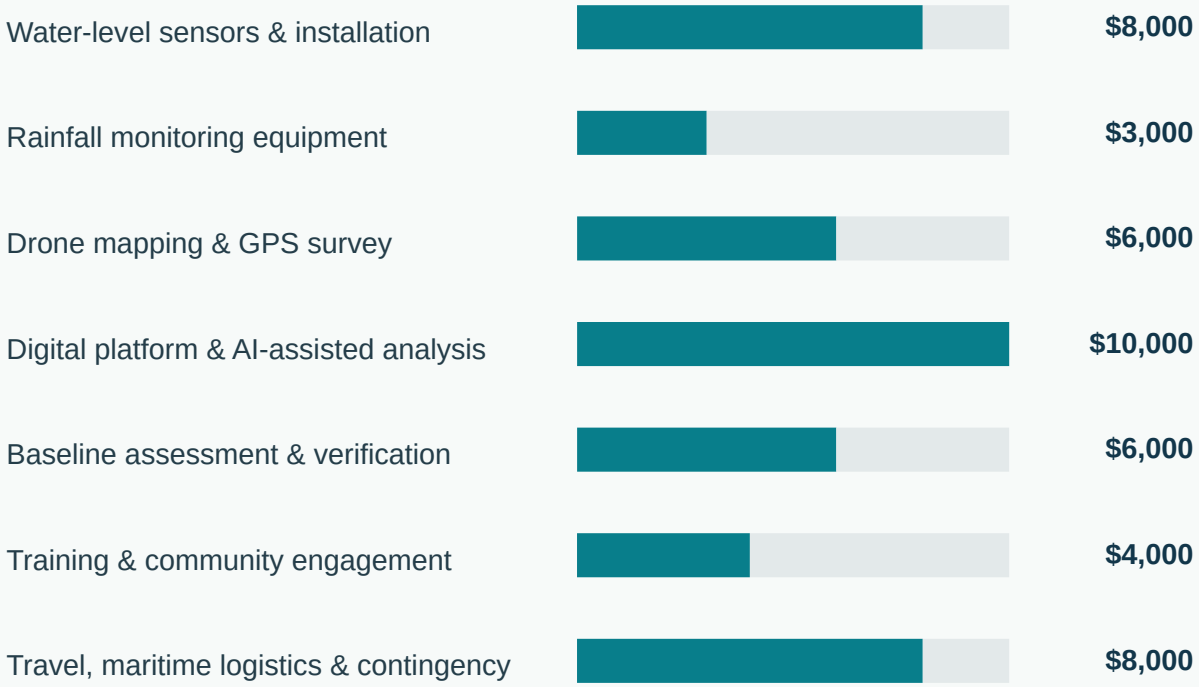
1. **Confirm & assess** — M1
   Baseline, sites, risks
2. **Design & procure** — M1–2
   Specs, quotations, governance
3. **Map & install** — M3–4
   Asset register, sensors, dashboard
4. **Operate & train** — M4–7
   Monitoring, alerts, user practice
5. **Evaluate** — M8–9
   Costs, reliability, scale-up decision

Timing is indicative and can be affected by procurement, weather, maritime transport, permissions and site access.

Indicative budget and performance measures

Planning estimates only — final costs and targets require baseline confirmation and approval

Indicative budget — USD $45,000



Planning range: USD $30,000–$60,000

Performance measures

Baseline coverage	All agreed priority assets and sites
Asset mapping	100% of agreed priority assets mapped where safe and feasible
Monitoring data	At least 85% usable scheduled sensor readings during the trial
Alert verification	100% of critical alerts reviewed by a designated officer
Training	All primary and backup users demonstrate core tasks
Maintenance readiness	Named maintainers + checklist + recurrent-cost estimate
Cost & scalability	Compare actual spending and operating cost before replication

Risks, next steps and how staff can practise

Use the pilot as a realistic training example without exposing live sensitive information

Key risks and controls

Weak connectivity	Offline forms, local storage and a manual reporting channel
Sensor errors	Calibration plus comparison with manual readings
False AI alerts	Transparent rules first, human verification and audit trail
Maintenance gaps	Named primary/backup maintainers and recurring-cost planning
Weather / drone delays	Confirm permissions, safety and contingency days early
Sensitive data	Limit collection, control access and avoid public release

Immediate next steps

- Secure management endorsement for a baseline assessment and detailed design.
- Nominate the project lead, technical focal point and primary/backup maintainers.
- Verify tanks, usable storage, demand, defects and current reporting arrangements.
- Obtain detailed specifications and quotations for equipment, platform, training and logistics.
- Approve data governance, drone permissions, alert thresholds and escalation contacts.
- Confirm the final budget and baseline-informed KPIs before procurement.

Use this case study in AI training

Staff can practise prompt writing, trend summaries, anomaly explanations, situation reports, management briefs and project updates using fictional or sanitised pilot data — then verify every output against the approved source.

Steps to achieve the action plan

Each stage ends with a clear output before the next stage begins

Stage	Main activity	Output
1. Prepare	Seek approval, assess needs and agree safe-use rules	Approved scope and staff register
2. Pilot	Test two half-day sessions with a mixed staff group	Revised training pack and feedback
3. Roll out	Train headquarters, divisions and district staff	Attendance register and checked exercises
4. Support	Run monthly clinics and catch-up sessions	Local focal officers and shared examples
5. Review	Compare results with the baseline and report	Improvement plan for the next year

Implementing organization

Proposed responsibilities within the ministry

Role	Responsibility
Senior management sponsor	Approve the scope, staff time and resources
Training lead: Mitieli Cama, Devesh Lal , Matelita C & Simione sorowale	Adapt the materials, facilitate sessions and track progress
HR / training team	Confirm the staff list, organise cohorts and keep records
ICT and information owners	Approve tools, access arrangements and safe-use guidance
Disaster and climate focal officers	Check technical examples and operational relevance
Divisional focal officers / supervisors	Support local staff and review completed work

Action plan timetable

Month 1 begins after approval and confirmation of staff availability

Activity	M1	M2	M3–4	M5–8	M9–12
Approval, survey and tool review	●				
Training pack and pilot	●	●			
Headquarters and divisional rollout			●	●	
District and remote catch-up sessions				●	●
Monthly clinics and supervisor checks			●	●	●
Progress review and final report			●	●	●

Training can pause during an emergency. Catch-up sessions protect full staff coverage.

Resources and budget

Planning basis only. Finance will cost the programme before approval.

Resource	Proposed approach	Cost basis
Training rooms and equipment	Use ministry facilities where suitable	Existing resources / in-kind
Staff and facilitator time	Schedule two half-days per cohort	HR confirms release time
Connectivity and AI access	Use ICT-approved access arrangements	Users × licence / data rate
Divisional and remote delivery	Combine visits with suitable planned travel	Approved trips × travel cost
Materials and follow-up	Digital guides, limited printing and clinics	Copies, accessibility and support

Total funding request: to be confirmed after staff numbers, access needs and travel are costed.

Expected results

Proposed targets, measured against the staff register and baseline

Measure	Target	Evidence
Training coverage	100% of staff trained by Month 12	Attendance and catch-up register
Practical competence	At least 80% pass the first exercise review	Accuracy and safe-use checklist
Support for remaining staff	All staff who need it receive coaching	Reassessment record
Useful resources	One guide and four reviewed task templates	Approved training pack
Quality of routine work	Improvement from the pilot baseline	Supervisor review and timing sample

Vinaka

Staff awareness on AI usage

The first step on returning to Fiji

A management briefing to agree the scope,
nominate focal officers and authorise the pilot.

The aim is simple: staff who can use AI confidently,
check its work and apply it responsibly in service of our communities.