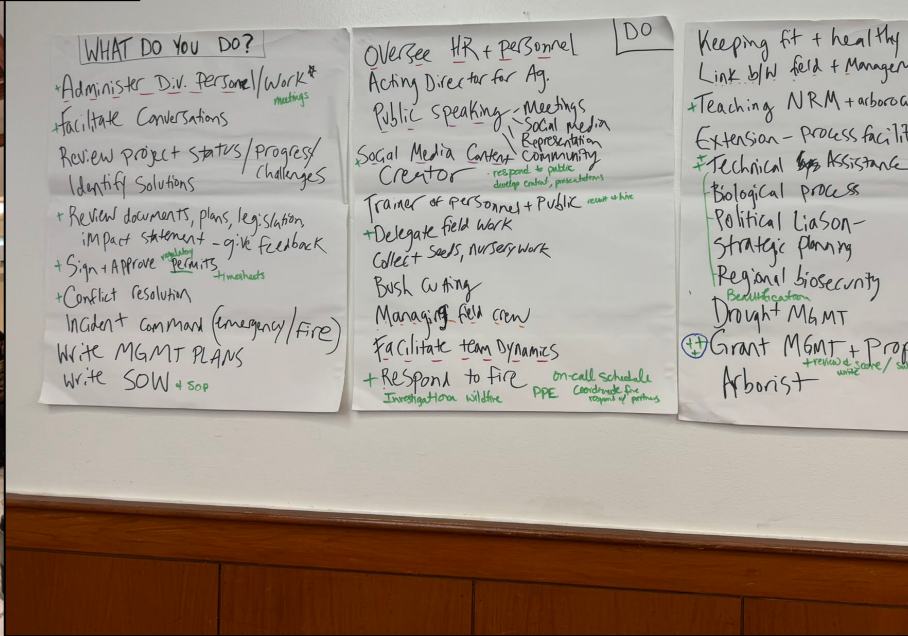
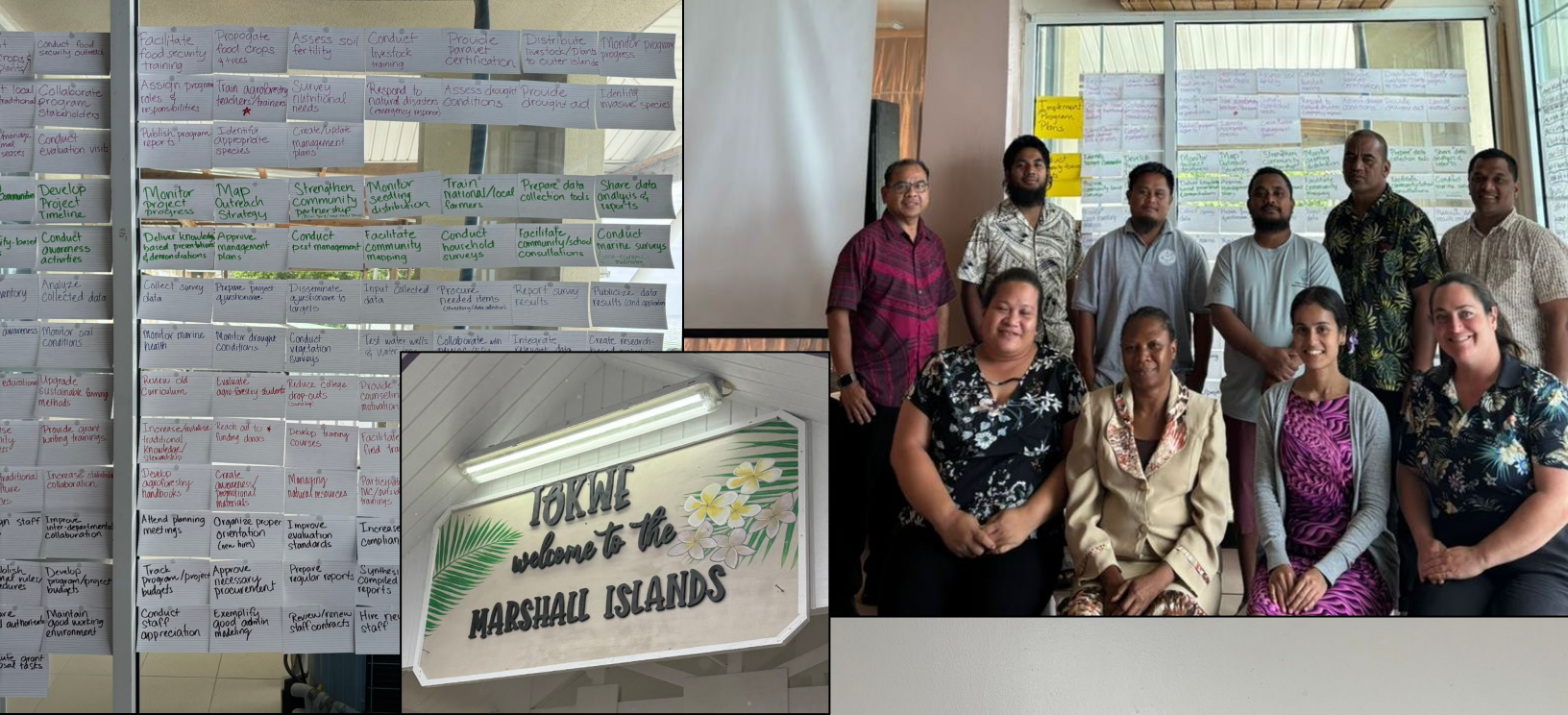




Pacific Islands Natural Resource Workforce Development Toolkit

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1 DACUM WORKFORCE FRAMEWORK

1.1 DACUM Project Brief

DACUM (Developing a Curriculum) is a structured, practitioner-led workforce analysis method designed to document what people actually do in their jobs. Rather than relying on job descriptions or organizational charts, DACUM convenes experienced professionals in facilitated workshops to identify real-world duties, critical tasks, and the knowledge and skills required for effective performance. The method centers operational expertise and produces results grounded in day-to-day practice.

In this project, DACUM was implemented across multiple Pacific Island jurisdictions to examine the work of natural resource management professionals operating in forestry, agriculture, biosecurity, invasive species management, conservation, extension, and regulatory programs. Practitioners worked collaboratively to map the functional responsibilities shared across agencies and roles. The result is a practitioner-validated, regionally grounded workforce framework that reflects Pacific Island realities rather than generic workforce models developed elsewhere.

Through multi-island workshops, participants identified eight shared duty areas and more than 300 specific tasks describing the breadth of natural resource work in the region. The process also surfaced cross-cutting competency needs and emerging workforce pressures that are consistently affecting agencies. These include retirements and succession gaps, increasing reporting and compliance requirements, climate-driven environmental impacts, invasive species expansion, and growing coordination demands across institutions and jurisdictions. The findings represent a shared, cross-sector picture of workforce conditions across the Pacific Islands.

Core Areas of Work Identified

Across roles and agencies, participants consistently identified the following shared areas of responsibility:

- Planning and designing natural resource programs and projects
- Managing program administration and resources
- Building capacity and providing technical assistance
- Collecting, managing, and sharing data and knowledge
- Engaging communities and stakeholders
- Implementing and managing field operations
- Responding to natural resource threats and emerging issues
- Supporting policy development and regulatory processes

Even entry-level and field-focused roles span technical work, community engagement, data, and coordination, often without formal training pathways or transition support.

What the Findings Revealed

The workshops made clear that agencies are not facing isolated staffing shortages, but structural workforce risks. A significant portion of experienced personnel are approaching retirement, and critical

operational knowledge is frequently undocumented and held by individuals rather than embedded within systems. Onboarding processes are inconsistent and often dependent on informal mentorship. At the same time, workload expectations continue to expand due to climate impacts, biosecurity threats, funding and reporting requirements, and increasing interagency coordination. Without deliberate succession planning and knowledge transfer, agencies face elevated performance, compliance, and funding risks.

Why This Matters for the Pacific

For Pacific Island contexts, these risks carry particular weight. Natural resource management in the region is highly place-based and culturally grounded. Effective programs depend on long-standing relationships, local ecological knowledge, community trust, and familiarity with jurisdiction-specific regulatory environments. When experienced staff leave without structured transition processes, rebuilding capacity can take years. Projects slow, reporting quality declines, institutional memory erodes, and community relationships weaken. Workforce continuity is therefore not simply an internal management concern; it is a foundational component of environmental resilience and institutional stability.

What This Project Delivers

The DACUM project delivers practical, supervisor-usable tools designed for real agency conditions. It provides a validated framework of duties and tasks that agencies can align around, competency mappings tied to actual job functions, and role-informed guidance for succession planning and knowledge transfer. The framework is adaptable to small, resource-constrained island agencies and is designed to support onboarding, professional development, and workforce continuity planning in ways that reflect operational realities.

What Partners Can Do

Agencies can use the DACUM tools to strengthen onboarding, succession planning, and continuity for high-risk roles. Funders can support workforce continuity and transition planning as eligible activities and invest in professional development tied to real job functions.

Educational institutions can align courses and training with validated workforce needs, strengthening pathways into employment. Policymakers and senior leadership can recognize workforce capacity as a foundational element of natural resource resilience and support policies that reduce institutional knowledge loss.

Summary

The DACUM findings show that sustaining Pacific Island natural resource systems depends on sustaining the people, knowledge, and relationships that manage them. The DACUM framework offers a shared understanding of current conditions and a practical starting point for coordinated, regionally grounded action.

1.2 Structural Architecture of the DACUM Workforce Framework

The DACUM project established a comprehensive workforce readiness framework described in the *DACUM-Informed Workforce Development Framework for Pacific Islands Natural Resource Management Report*. That report presents the full occupational analysis, the eight practitioner-defined duties, the competency framework, the seven professional development modules, and the regional coordination model. Together, those elements form an integrated workforce readiness system intended to strengthen education-to-employment pathways, improve onboarding and retention, and support long-term institutional resilience across Pacific Island natural resource management agencies.

This toolkit does not introduce a new or separate framework. Instead, it operationalizes the workforce readiness model presented in the associated DACUM report. The five-pillar architecture below reorganizes the same core components into an implementation structure designed for supervisors, early-career professionals, employers, and institutional partners. While the Final Report focuses on system design and regional strategy, this toolkit translates that design into practical tools, checklists, crosswalks, and applied guidance for day-to-day workforce development and performance management.

The framework is therefore built on five interconnected pillars that correspond directly to the major components of the Final Report. These pillars provide a practical structure for applying the DACUM duties, competency domains, professional development modules, onboarding pathways, and regional coordination mechanisms in real organizational settings.

1. Practitioner-Defined Duty Framework

At its foundation, the DACUM process identified eight shared duty areas and more than 300 discrete tasks that define the real work of natural resource management in Pacific Island contexts. These duties span the full lifecycle of programs, from planning and budgeting to field implementation, community engagement, threat response, and policy support.

This pillar provides:

- A validated picture of what NRM professionals actually do
- Cross-jurisdictional alignment around shared responsibilities
- A common language for agencies, institutions, and partners

All tools in this toolkit align to these practitioner-defined duties.

2. Competency Translation

Duties and tasks were translated into applied competency domains that reflect how work is performed in small, resource-constrained island agencies. Rather than focusing on job titles, the framework emphasizes cross-functional capability.

Key competency clusters include:

- Project design and coordination
- Financial and administrative compliance
- Data collection and applied decision-making
- Community engagement and cultural competency
- Field operations and safety
- Policy literacy and regulatory navigation

This translation ensures that onboarding and professional development efforts are tied directly to operational performance, not abstract skill categories.

3. Applied Professional Development

DACUM findings showed that formal academic training alone does not fully prepare individuals for the integrated responsibilities they encounter in practice. To address this gap, seven applied professional development modules were designed to strengthen high-frequency, high-importance work functions.

These modules reinforce job-ready skills in:

- Community engagement and traditional knowledge integration
- Project planning and coordination
- Grants and financial management
- Field operations and safety
- Data-informed adaptive management
- Technical assistance and training delivery
- Policy communication and compliance

The readiness guides and supervisor tools in this toolkit complement these applied competencies by clarifying expectations and supporting structured development.

4. Structured Onboarding and Career Pathways

Workforce continuity depends not only on skills, but on how individuals transition into roles. DACUM workshops identified inconsistent onboarding practices and informal knowledge transfer as system-level risks.

This pillar emphasizes:

- Clear early-career expectations aligned to real duties
- Supervisor-supported onboarding plans

- Knowledge-transfer practices for high-risk roles
- Stackable credentials and documented competency progression

The early-career readiness guide and supervisor onboarding checklist included in this toolkit operationalize this pillar.

5. Regional Coordination and Continuous Learning

Workforce pressures such as climate impacts, invasive species expansion, regulatory complexity, and technological change are shared across jurisdictions. The framework therefore includes a mechanism for ongoing coordination, learning, and adaptation.

This pillar supports:

- Regional alignment around evolving workforce demands
- Continuous refinement of training resources
- Shared tools and reduced duplication
- Sustained institutional memory across agencies

The toolkit should be understood as part of this adaptive system, not a static set of documents.

Together, these five pillars form an integrated workforce readiness model:

- The duty framework defines what the work is.
- Competency translation clarifies what capabilities are required.
- Applied professional development strengthens readiness.
- Structured onboarding supports transition and retention.
- Regional coordination sustains adaptation over time.

The guides and checklists that follow are practical tools. They are grounded in this broader practitioner-defined architecture and are intended to support long-term workforce resilience across Pacific Island natural resource management systems. Not all pillars are addressed in equal depth within this toolkit. Pillar 1, which establishes the full DACUM duty framework, and Pillar 5, which outlines the regional coordination and continuous learning model, are developed more comprehensively in the *DACUM-Informed Workforce Development Framework Final Report*. This toolkit focuses primarily on translating that foundation into applied tools that support competency development, onboarding, supervision, and professional growth within agencies and institutions.

1.3 DACUM Technical Reference: Enablers Abbreviated Lists

This document provides complete reference lists identified through the DACUM process. The content reflects practitioner-identified behaviors, knowledge and skills, tools, and emerging trends across Pacific Island contexts. These lists are provided for reference and transparency only and are not intended to function as checklists, requirements, training mandates, or performance evaluation criteria. The full DACUM Duty Chart is available in the Appendix of this document.

This reference supports agencies, partners, educators, and funders who require full visibility into DACUM findings. Not all items apply to all roles, programs, or locations. Users should draw selectively from these lists based on local context, responsibilities, and capacity.

Knowledge and Skills

Agriculture and Food Systems

- Agricultural development
- Agriculture
- Agriculture science
- Agroecology
- Agroforestry
- Agronomy
- Animal science
- Aquaculture
- Aquaponics
- Climate smart agriculture
- Food economics
- Food processing
- Food security
- Food systems
- Harvesting
- Horticulture
- Hydroponics
- Integrated pest management
- Organic agriculture
- Soil sampling
- Soil science
- Traditional agricultural methods
- Vegetable production

Community, Communication, and Engagement

- Communication skills
- Conflict resolution

- Cultural sensitivity
- Facilitation
- Indigenous and traditional knowledge
- Listening
- Local knowledge
- Marketing
- Networking
- Stakeholder engagement
- Traditions

Data, Monitoring, and GIS

- Coral reef monitoring
- Data analysis
- Data collection
- Data entry and management
- Drone operation
- GIS mapping
- Inventory and monitoring
- Monitoring
- Remote sensing

Environmental and Ecological Knowledge

- Botany
- Climate change adaptation
- Ecology
- Entomology
- Environmental auditing
- Fire behavior
- Native and invasive species identification
- Plant identification
- Plant pathology

- Propagation methods
- Traditional ecological knowledge

Field Operations and Safety

- Arborist certification
- Equipment maintenance
- Field safety
- Navigation and orienteering
- Pesticide application
- Safety practices
- Small machinery operation

Financial and Administrative Skills

- Accounting
- Budget management
- Grant management
- Grant writing
- Reporting

Marine, Coastal, and Water Resources

- Marine science
- Scuba diving
- Water security

Policy, Governance, and Compliance

- Environmental policy
- Public law
- Regulatory compliance

Program and Project Management

- Adaptive management
- Leadership
- Planning
- Project management

Training, Mentorship, and Capacity Building

- Mentorship
- Teaching
- Training
- Youth development

Professional Behaviors

- Accountable
- Adaptable / Flexible
- Analytical thinking
- Approachable and positive demeanor
- Attention to detail
- Care
- Careful and thoughtful
- Clean
- Collaborative team player
- Community driven
- Community-minded
- Compassionate
- Competent
- Confident
- Confident leader
- Considerate
- Consistent and reliable
- Courageous
- Critical thinking
- Culturally respectful
- Dependable
- Disciplined
- Empathetic
- Energetic
- Entrepreneurial
- Ethical integrity
- Forgiving
- Good listener
- Hard working
- Healthy and fit
- High endurance
- Honesty
- Humanitarian
- Humility
- Hygienic
- Inclusive
- Independent

- Innovative and creative
- Leadership
- Learning-oriented
- Logical / Rational
- Mentor / role model
- Motivated and committed
- Observant
- Open-minded
- Optimistic
- Organized
- Passionate
- Patience
- Proactive and decisive
- Punctual
- Resilient
- Responsible
- Responsive
- Safety conscious
- Selfless
- Timely
- Tolerant
- Transparent
- Trustworthy
- Truth seeker
- Understanding

Tools, Equipment, and Technologies

Digital Tools and Software

- AI tools
- Accounting software
- Databases
- Email
- GIS software
- Internet
- Laptops

- Mobile applications
- Satellite internet
- Spreadsheets

Field Tools and Machinery

- Chainsaw
- Chipper
- Farm tools
- Hand pruners
- Mulcher
- Planting tools
- Tractor

Laboratory and Research Equipment

- Centrifuge
- Microscopes
- PCR kits
- Scales

Monitoring and Survey Equipment

- Binoculars
- Cameras
- Clinometer
- GPS
- Transect tapes

Office and Outreach Equipment

- Presentation materials
- Printer
- Projector

Safety and Protective Equipment

- Boots
- First aid kit
- Helmets
- PPE

Transportation and Mobility

- 4x4 vehicles
- Boats
- Trucks

- AI adoption
- Cyber security
- Misinformation
- Rapid technological change

Future Trends, Risks, and Emerging Concerns

Cultural and Social Change

- Cultural change
- Loss of traditional knowledge
- Out-migration
- Youth migration

Economic and Workforce

- Brain drain
- Funding cuts
- Inflation
- Staff turnover
- Workforce shortages

Education and Capacity

- Declining enrollment
- Loss of institutional knowledge
- Need for workforce development

Environmental and Climate

- Climate change
- Invasive species
- Sea level rise
- Wildfire

Food, Agriculture, and Resources

- Food insecurity
- Loss of agricultural land
- Rising cost of living

Political and Governance

- Policy gaps
- Political volatility
- Regulatory challenges

Technology and Data

2 CAREER NAVIGATION TOOLS (PILLAR 4: STRUCTURED ONBOARDING AND CAREER PATHWAYS)

2.1 Early-Career Readiness Guide

Purpose

This guide is designed for interns, recent graduates, technicians, and new hires entering natural resource management (NRM) roles in Pacific Island contexts. It translates practitioner-defined workforce expectations into practical guidance to support successful transition into the field.

Natural resource management roles in the Pacific are integrated and place-based. Even early-career professionals are expected to navigate fieldwork, community engagement, documentation, coordination, and compliance responsibilities. This guide clarifies what readiness looks like and how to prepare for sustained success.

Understanding the Work

Through the DACUM process, practitioners identified eight shared duty areas that define natural resource work across agencies. As an early-career professional, you are not expected to lead all of these functions. However, you will likely contribute to each in some way.

You may be asked to:

- Assist in planning projects and documenting activities
- Support budgeting, procurement, or reporting processes
- Collect and manage field data
- Participate in community meetings and outreach events
- Implement field activities safely and consistently
- Support response to invasive species, wildfire, or other threats
- Follow regulatory and compliance procedures

Understanding how your assigned tasks connect to larger program goals will strengthen your performance and professional growth.

Core Readiness Areas

1. Technical and Field Readiness

Be prepared to:

- Follow standard operating procedures
- Use field equipment safely and responsibly
- Apply basic data collection protocols accurately
- Maintain tools, vehicles, and supplies

Demonstrate readiness by:

- Arriving prepared and on time

- Asking questions when instructions are unclear
- Prioritizing safety in all activities

2. *Data and Documentation*

Accurate documentation is critical for funding, compliance, and accountability.

Be prepared to:

- Record field data clearly and consistently
- Enter data accurately into databases or spreadsheets
- Maintain organized digital and paper files
- Follow QA/QC procedures

Demonstrate readiness by:

- Submitting complete documentation
- Checking your work for errors
- Understanding why data integrity matters

3. *Community Engagement and Cultural Awareness*

Natural resource management in the Pacific depends on trust, relationships, and respect for local knowledge.

Be prepared to:

- Observe and follow cultural protocols
- Listen actively in community meetings
- Communicate respectfully with elders, farmers, fishers, and partners
- Support outreach logistics and follow-up

Demonstrate readiness by:

- Being attentive and respectful
- Avoiding assumptions
- Recognizing that community relationships are central to program success

4. *Professional Communication*

Clear communication reduces errors and improves coordination.

Be prepared to:

- Provide concise updates to supervisors
- Ask clarifying questions
- Write basic field summaries or reports
- Communicate changes or challenges promptly

Demonstrate readiness by:

- Responding to messages in a timely manner
- Maintaining a professional tone
- Escalating issues appropriately

5. *Administrative and Compliance Awareness*

Even field-based roles operate within funding and regulatory structures.

Be prepared to:

- Follow procurement and travel procedures
- Track assigned expenses or materials
- Understand basic compliance expectations
- Respect reporting deadlines

Demonstrate readiness by:

- Submitting required forms accurately
- Maintaining organized records
- Recognizing that administrative accuracy protects the agency

6. *Adaptive Learning and Growth*

Early-career readiness is not mastery. It is the ability to learn efficiently.

Demonstrate readiness by:

- Seeking feedback regularly
- Accepting constructive critique
- Identifying areas for skill development
- Participating in available training opportunities

Professional Habits That Matter

Supervisors consistently identify the following as critical early-career traits:

- Reliability and punctuality
- Accountability for assigned tasks
- Willingness to assist beyond narrow role descriptions
- Attention to safety
- Respect for community members and colleagues
- Curiosity and initiative

Common Early-Career Challenges

You may encounter:

- Ambiguous expectations
- Multiple supervisors or reporting lines
- Competing deadlines
- Resource constraints
- Rapid response situations (e.g., wildfire, invasive species)

In these situations:

- Clarify priorities with your supervisor
- Document decisions and instructions
- Stay calm and follow established procedures
- Ask for guidance when unsure

Self-Assessment Checklist

Consider the following questions:

- Do I understand how my tasks support broader program goals?
- Am I following safety and data protocols consistently?
- Do I communicate clearly and proactively with my supervisor?
- Do I understand the cultural context of the communities I serve?
- Have I identified specific skills I need to strengthen?

If you answer “no” to any of these, identify a concrete next step and discuss it during your check-ins.

Next Steps for Professional Growth

Within your first year, aim to:

- Demonstrate consistent competence in assigned tasks
- Strengthen one applied skill area (e.g., GIS, engagement facilitation, grant documentation)
- Participate in at least one professional development opportunity
- Build positive working relationships with colleagues and community partners

Long-term success in Pacific Island natural resource management depends on sustained learning, relationship-building, and operational reliability. Early-career readiness is not defined by knowing everything. It is defined by working safely, documenting accurately, communicating clearly, respecting community relationships, and demonstrating steady growth.

This guide is intended to support your transition into a workforce that is essential to environmental stewardship, community resilience, and institutional continuity across the Pacific Islands.

2.2 Early-Career Competency Checklist

How to use this checklist

This checklist is intended for early-career professionals, supervisors, and mentors to assess readiness across core DACUM duties. Items reflect skills and knowledge repeatedly identified during DACUM workshops as essential for effective performance. Individuals are not expected to demonstrate full independence in all areas; the checklist is designed to identify areas of exposure, confidence, and development need.

Suggested rating options (optional):

☐ Exposure only ☐ Can perform with guidance ☐ Can perform independently

D1. Plan and Design Natural Resource Programs and Projects

- ☐ Understands basic project planning concepts (goals, objectives, deliverables)
- ☐ Can interpret a work plan, timeline, or scope of work
- ☐ Assists with needs assessments or problem definition
- ☐ Contributes to project scoping discussions
- ☐ Understands how data, community input, and funding shape project design
- ☐ Recognizes common constraints (staffing, budget, permitting, logistics)

Associated knowledge and skills

- Project planning fundamentals
- Basic program design terminology
- Problem analysis and prioritization

D2. Manage Program Administration and Resources

- ☐ Understands basic budgeting concepts and expense tracking
- ☐ Assists with grant or contract documentation
- ☐ Follows procurement and purchasing procedures
- ☐ Maintains organized digital and physical records
- ☐ Understands reporting requirements and deadlines
- ☐ Recognizes the role of compliance in program continuity

Associated knowledge and skills

- Grant administration basics
- Financial documentation
- Recordkeeping and organization

D3. Build Capacity and Provide Technical Assistance

- ☐ Assists with training workshops or demonstrations
- ☐ Prepares outreach or training materials
- ☐ Explains technical concepts clearly under supervision
- ☐ Supports peers, interns, or volunteers
- ☐ Understands basic principles of adult learning
- ☐ Demonstrates respect and patience when supporting others

Associated knowledge and skills

- Technical communication
- Training support methods
- Mentorship fundamentals

D4. Collect, Manage, and Share Data and Knowledge

- ☐ Collects field data using established protocols
- ☐ Uses common field tools (GPS, datasheets, apps) correctly
- ☐ Enters and manages data accurately
- ☐ Understands basic QA/QC principles
- ☐ Assists with basic analysis, mapping, or summaries
- ☐ Understands how data informs management decisions and reporting

Associated knowledge and skills

- Field data collection methods
- Data management practices
- Introductory GIS or spatial literacy

D5. Engage Communities and Stakeholders

- ☐ Participates respectfully in community meetings
- ☐ Understands local cultural protocols and norms
- ☐ Assists with outreach, communication, or coordination
- ☐ Demonstrates active listening and responsiveness
- ☐ Recognizes the importance of trust and long-term relationships
- ☐ Understands the role of traditional knowledge in management

Associated knowledge and skills

- Community engagement principles
- Cultural competency
- Stakeholder coordination

D6. Implement and Manage Programs and Field Operations

- ☐ Conducts fieldwork safely and follows SOPs
- ☐ Uses tools, equipment, and PPE correctly
- ☐ Understands basic logistics and scheduling
- ☐ Communicates clearly during field operations
- ☐ Identifies risks and reports issues appropriately
- ☐ Supports coordination among field teams

Associated knowledge and skills

- Field safety and compliance
- Equipment operation basics
- Operational coordination

D7. Respond to Natural Resource Threats and Emerging Issues

- ☐ Understands major environmental threats relevant to the region
- ☐ Assists with monitoring or response activities
- ☐ Follows emergency or incident response protocols
- ☐ Understands reporting and communication pathways
- ☐ Demonstrates adaptability during changing conditions
- ☐ Recognizes the role of coordination during emergencies

Associated knowledge and skills

- Threat awareness (climate, invasive species, disasters)
- Response procedures
- Adaptive decision-making

D8. Support Policy Development and Regulatory Processes

- ☐ Understands basic environmental and biosecurity regulations
- ☐ Assists with compliance documentation and reporting
- ☐ Recognizes how policy affects field and program work
- ☐ Communicates clearly with agencies and partners
- ☐ Understands accountability to funders and regulators
- ☐ Maintains accuracy and professionalism in written materials

Associated knowledge and skills

- Policy literacy
- Regulatory compliance
- Professional communication

Early-career readiness does not require mastery of all tasks. Patterns in this checklist can help identify:

- Priority training needs
- Appropriate professional development modules
- Mentorship and supervision focus areas
- Internship or service-learning opportunities
- Supervisors and mentors are encouraged to revisit this checklist periodically as responsibilities increase.

2.3 Professional Development Planning Worksheet

Employee Name: _____

Position Title: _____

Agency/Program: _____

Supervisor: _____

Date: _____ Review Period: _____

SECTION 1. ROLE ALIGNMENT

Primary Duty Areas in My Current Role (check all that apply):

- ☐ D1 Planning and Project Design
- ☐ D2 Administration and Resource Management
- ☐ D3 Capacity Building and Technical Assistance
- ☐ D4 Data Collection and Knowledge Management
- ☐ D5 Community Engagement and Stakeholder Coordination
- ☐ D6 Field Operations and Program Implementation
- ☐ D7 Threat Response and Emerging Issues
- ☐ D8 Policy and Regulatory Support

Brief Description of My Core Responsibilities (3–5 sentences):

SECTION 2. SELF-ASSESSMENT

Confidence Level Scale

1 = Limited exposure

2 = Basic familiarity

3 = Working competence

4 = Independent performance

5 = Able to guide others

Duty Area | Confidence (1–5) | Specific Skills to Strengthen

D1 Planning & Design | ____ | _____

D2 Administration & Finance | ____ | _____

D3 Capacity Building | ____ | _____

D4 Data & Monitoring | ____ | _____

D5 Community Engagement | ____ | _____

D6 Field Operations | ____ | _____

D7 Threat Response | ____ | _____

D8 Policy & Compliance | ____ | _____

SECTION 3. PRIORITY DEVELOPMENT GOALS (Next 6–12 Months)

Goal 1

Duty Area(s): _____

Skill to Develop: _____

Why This Is Important: _____

Target Completion Date: _____

Goal 2

Duty Area(s): _____

Skill to Develop: _____

Why This Is Important: _____

Target Completion Date: _____

Goal 3 (Optional)

Duty Area(s): _____

Skill to Develop: _____

Why This Is Important: _____

Target Completion Date: _____

SECTION 4. ACTION PLAN

Goal | Action Steps | Support Needed | Evidence of Completion

Goal 1 | _____ | _____ | _____

Goal 2 | _____ | _____ | _____

Goal 3 | _____ | _____ | _____

SECTION 5. SUPERVISOR SUPPORT

Supervisor Commitments (check all that apply):

- ☐ Provide regular feedback
- ☐ Assign progressively responsible tasks
- ☐ Pair with mentor or subject-matter expert
- ☐ Approve time for training participation
- ☐ Review documentation and provide guidance
- ☐ Support participation in regional learning opportunities

Additional Supervisor Notes:

SECTION 6. PROGRESS REVIEW

Review Date: _____

Progress Summary:

Next Steps or Adjustments:

SECTION 7. LONG-TERM DEVELOPMENT (Optional)

Areas of Emerging Interest:

Potential Future Role(s):

Skills Needed to Reach That Role:

Signatures

Employee: _____ Date: _____

Supervisor: _____ Date: _____

3 SUPERVISOR TOOLS (PILLAR 2 AND PILLAR 4)

3.1 Position Competency Framework

Purpose:

This crosswalk translates DACUM-identified duties and competencies into example job functions to support position design, hiring, onboarding, and performance management across Pacific Island natural resource agencies and organizations. This crosswalk makes performance expectations explicit, reduces ambiguity for staff and supervisors, and links work, training, and career progression.

Intended Use

- **HR and administrators:** Update or create position descriptions grounded in actual work
- **Supervisors:** Clarify expectations, reduce role ambiguity, and support performance evaluation
- **Agencies and NGOs:** Diagnose workload overload and identify opportunities for role restructuring or team-based coverage

Performance Levels (Standardized)

- **Entry / Probationary:** Demonstrates foundational competence with supervision
- **Proficient:** Performs independently and reliably
- **Advanced / Promotion-Ready:** Leads, mentors, and improves systems

How to Use This Tool

- Use the crosswalk to identify which DACUM duties are embedded in a given position
- Recognize when a single role span multiple high-intensity duties
- Adjust position scope, classification, or support structures accordingly
- Align professional development modules to job expectations

Key Insight from DACUM

The crosswalk illustrates that most Pacific Island natural resource positions span four to six DACUM duties, often without formal recognition in position descriptions or workload planning. This structural reality contributes to:

- Perceived role overload
- Burnout and turnover
- Misalignment between job expectations and training

How Agencies Can Use This

- **Probation reviews:** Confirm entry-level competencies are met
- **Promotion decisions:** Require demonstrated performance at the “Advanced” level across priority duties
- **Training plans:** Align professional development modules to gaps by level
- **Position redesign:** Identify when roles span too many advanced duties without support

<i>Example Positions</i>	DACUM Duty	Core Competency	Example Job Functions	Entry / Probationary	Proficient	Advanced / Promotion-Ready
Natural Resource Program Manager	D1 – Plan & Design Programs	Program Planning	Assist with needs assessments; contribute to work plans	Contributes to plans with guidance	Independently develops work plans and timelines	Leads program design; mentors others
	D2 – Manage Program Admin	Financial & Admin Management	Track budgets; support procurement	Accurately tracks expenditures	Manages budgets and compliance independently	Oversees multi-project budgets; improves systems
	D5 – Engage Communities	Community Engagement	Support meetings; assist outreach	Participates respectfully	Facilitates meetings independently	Builds long-term partnerships; resolves conflicts
Field Technician / Specialist	D6 – Implement Programs	Field Operations & Safety	Conduct monitoring; operate equipment	Follows SOPs with supervision	Works independently; ensures safety	Trains others; refines field protocols
	D4 – Collect & Manage Data	Data Collection	Collect and enter field data	Collects accurate data	Performs QA/QC and basic analysis	Designs monitoring protocols
Invasive Species Coordinator	D7 – Respond to Threats	Rapid Response & Biosecurity	Support response activities	Assists response operations	Coordinates response activities	Leads multi-agency response planning
	D8 – Policy & Regulation	Compliance & Reporting	Prepare reports; support enforcement	Understands requirements	Applies regulations consistently	Advises on policy improvements
Extension / Outreach Specialist	D3 – Build Capacity	Training & Technical Assistance	Deliver trainings; develop materials	Co-facilitates trainings	Independently delivers trainings	Designs curricula; mentors trainers
	D5 – Engage Communities	Stakeholder Engagement	Support stewardship initiatives	Supports engagement activities	Builds trusted relationships	Leads regional engagement strategies

3.2 Supervisor Onboarding Checklist

Purpose

This checklist supports supervisors in onboarding new hires by clarifying expectations, prioritizing applied skills, and aligning early responsibilities with DACUM-identified duties and tasks. It reflects the realities of small teams, overlapping roles, and high operational demands across Pacific Island natural resource organizations.

How to use this checklist

This checklist is intended for use during the first 3–12 months of employment. Items can be phased, delegated, or revisited as responsibilities increase.

1. Role Orientation and Expectations (All Duties)

- ☐ Reviewed position description in relation to actual program needs
- ☐ Clarified which DACUM duties are primary vs. secondary for this role
- ☐ Discussed expected balance between field, administrative, and engagement work
- ☐ Explained decision-making authority and escalation pathways
- ☐ Identified priority skills to be developed in the first year
- ☐ Assigned a point of contact or mentor for informal questions

2. Program Planning and Design (D1)

- ☐ Oriented employee to current projects, goals, and timelines
- ☐ Reviewed how projects are scoped, approved, and funded
- ☐ Explained how community input, data, and policy influence project design
- ☐ Identified opportunities for the employee to contribute to planning tasks
- ☐ Clarified expectations around documentation and work plans

3. Program Administration and Resources (D2)

- ☐ Reviewed budget structure and basic financial procedures
- ☐ Explained grant, contract, and reporting obligations relevant to the role
- ☐ Oriented employee to procurement and purchasing processes
- ☐ Established expectations for recordkeeping and documentation
- ☐ Clarified timelines and responsibilities for internal reporting

4. Capacity Building and Technical Assistance (D3)

- ☐ Clarified expectations for training, outreach, or technical assistance duties
- ☐ Identified audiences the employee will support (communities, partners, staff)
- ☐ Reviewed standards for professional conduct during trainings and outreach
- ☐ Discussed opportunities for the employee to co-facilitate or observe trainings
- ☐ Set expectations for knowledge sharing within the team

5. Data Collection, Management, and Use (D4)

- ☐ Reviewed data collection protocols and quality expectations
- ☐ Oriented employee to data systems, storage locations, and access rules
- ☐ Clarified responsibilities for data entry, analysis, and reporting
- ☐ Explained how data informs management decisions and funding
- ☐ Identified training needs related to GIS, databases, or monitoring tools

6. Community and Stakeholder Engagement (D5)

- ☐ Reviewed community engagement expectations for the role
- ☐ Discussed cultural protocols, local governance, and community norms
- ☐ Clarified who leads engagement activities and who supports
- ☐ Set expectations for communication, responsiveness, and follow-up
- ☐ Reviewed conflict-sensitive and respectful engagement practices

7. Field Operations, Safety, and Compliance (D6)

- ☐ Completed required safety briefings and certifications
- ☐ Reviewed SOPs, PPE requirements, and equipment use
- ☐ Clarified field supervision structure and communication protocols
- ☐ Reviewed incident reporting and risk management procedures
- ☐ Confirmed access to tools, vehicles, and field resources

8. Threat Response and Emerging Issues (D7)

- ☐ Reviewed priority environmental threats relevant to the program
- ☐ Explained response roles during emergencies or rapid response situations
- ☐ Clarified coordination expectations with agencies and partners
- ☐ Reviewed communication and reporting pathways during incidents
- ☐ Discussed seasonal or emerging risks affecting workload

9. Policy, Compliance, and Professional Communication (D8)

- ☐ Reviewed key laws, regulations, and policies affecting the role
- ☐ Clarified compliance responsibilities and enforcement boundaries
- ☐ Explained reporting expectations to funders, partners, and communities
- ☐ Reviewed standards for written and verbal professional communication
- ☐ Discussed appropriate use of media and outreach platforms

10. Professional Development and Retention

- ☐ Reviewed applicable DACUM-informed professional development modules
- ☐ Identified priority modules for the employee's first 12–24 months
- ☐ Discussed opportunities for mentoring, shadowing, and peer learning
- ☐ Clarified expectations for workload management and self-care
- ☐ Established regular check-in schedule for feedback and adjustment

Supervisor Notes (Optional)

- Priority development areas:
- Recommended modules:
- Mentorship or training support needed:
- Review date:

Why this tool matters

DACUM workshops consistently showed that onboarding expectations are often implicit, uneven, or undocumented. This checklist translates practitioner-defined work into clear onboarding actions, reducing turnover risk, improving early performance, and supporting workforce continuity.

3.3 Performance Expectations Matrix

Purpose:

Provide a consistent reference for evaluating performance, guiding coaching conversations, and supporting professional growth across Pacific Island natural resource organizations.

Intended Audience

- **Supervisors:** Performance reviews, probation decisions, coaching
- **Employees:** Self-assessment, goal setting, career progression
- **Agencies and NGOs:** Standardizing expectations across teams and jurisdictions

How to Use This Tool

- Apply during probationary reviews, annual evaluations, or promotion considerations
- Focus discussion on observable work and outputs, not abstract traits
- Identify targeted professional development needs linked to DACUM modules

Performance Levels

- **Entry / Probationary:** Performs tasks with guidance; builds foundational competence
- **Proficient:** Performs independently and consistently; meets role expectations
- **Advanced:** Leads, mentors, and improves systems; ready for expanded responsibility

Key Features of This Tool

- **DACUM-grounded:** Directly tied to practitioner-defined duties
- **Observable:** Focused on actions and outputs, not attitudes
- **Scalable:** Applicable across roles, agencies, and jurisdictions
- **Actionable:** Easily linked to training modules and coaching plans

Performance Expectations Matrix

DACUM Duty	Entry / Probationary	Proficient	Advanced
D1. Plan and Design Natural Resource Programs and Projects	Contributes to needs assessments and work plans with supervision	Independently develops project plans, timelines, and deliverables	Leads program design; integrates risk, funding, and stakeholder considerations
D2. Manage Program Administration and Resources	Accurately tracks budgets and follows administrative procedures	Manages budgets, procurement, and reporting independently	Oversees multiple funding streams; improves administrative systems
D3. Build Capacity and Provide Technical Assistance	Assists with trainings and learning exchanges	Delivers trainings and technical assistance independently	Designs training programs; mentors trainers and staff
D4. Collect, Manage, and Share Data and Knowledge	Collects field data accurately; follows protocols	Performs QA/QC, basic analysis, and reporting	Designs monitoring systems; translates data for decision-making
D5. Engage Communities and Stakeholders	Participates respectfully in engagement activities	Facilitates meetings; builds trusted relationships	Leads long-term partnerships; navigates conflict and complex dynamics
D6. Implement and Manage Programs and Field Operations	Conducts field activities safely with supervision	Oversees field operations and staff independently	Manages complex operations; improves SOPs and workflows
D7. Respond to Natural Resource Threats and Emerging Issues	Supports response activities and follows response plans	Coordinates response efforts; adapts actions as needed	Leads multi-agency response planning and evaluation
D8. Support Policy Development and Regulatory Processes	Understands relevant regulations and compliance requirements	Applies policies consistently; prepares reports	Advises on policy improvements; supports institutional compliance strategies

3.4 90-Day Onboarding Plan Worksheet

Employee Name: _____
Position Title: _____
Agency/Program: _____
Supervisor: _____
Start Date: _____ Review Date (90 Days): _____

Purpose: *This worksheet supports structured onboarding for new hires during their first 90 days. It aligns onboarding activities to practitioner-defined DACUM duty areas and helps reduce early-career overload, clarify expectations, and protect institutional knowledge.*

SECTION 1. ROLE CLARITY

Primary Duty Areas in This Role (check all that apply):

- ☐ D1 Planning and Project Design
- ☐ D2 Administration and Resource Management
- ☐ D3 Capacity Building and Technical Assistance
- ☐ D4 Data Collection and Knowledge Management
- ☐ D5 Community Engagement and Stakeholder Coordination
- ☐ D6 Field Operations and Program Implementation
- ☐ D7 Threat Response and Emerging Issues
- ☐ D8 Policy and Regulatory Support

Brief Summary of Core Responsibilities:

SECTION 2. FIRST 30 DAYS – ORIENTATION AND FOUNDATIONS

Focus: Understanding systems, safety, and expectations

Key Objectives (check or specify):

- ☐ Review agency mission, strategic plans, and current projects
- ☐ Review role description and performance expectations
- ☐ Complete safety training and field protocols
- ☐ Review relevant SOPs and compliance procedures
- ☐ Introductions to team members and partners
- ☐ Review reporting lines and communication protocols
- ☐ Review basic administrative procedures (travel, procurement, documentation)

Additional 30-Day Objectives:

Supervisor Support During First 30 Days:

- ☐ Weekly check-ins
- ☐ Shadowing assignments
- ☐ Field observation opportunities
- ☐ Documentation review and feedback

Notes:

SECTION 3. DAYS 31–60 – SKILL APPLICATION AND SUPERVISED PRACTICE

Focus: Applied task execution with structured feedback

Key Objectives:

- ☐ Independently complete assigned routine field tasks
- ☐ Submit accurate data and documentation
- ☐ Participate in at least one community engagement activity
- ☐ Assist in project implementation or monitoring
- ☐ Demonstrate adherence to safety and compliance procedures

Assigned Practice Areas (linked to duty areas):

Duty Area: _____

Assigned Task(s): _____

Duty Area: _____

Assigned Task(s): _____

Supervisor Feedback Schedule:

- ☐ Bi-weekly check-ins
- ☐ Field performance review
- ☐ Documentation review

Notes:

SECTION 4. DAYS 61–90 – INCREASING RESPONSIBILITY

Focus: Independent task management and integration into team workflows

Key Objectives:

- ☐ Manage assigned tasks with minimal supervision
- ☐ Prepare draft reports or summaries

- ☐ Support coordination with partners or community members
- ☐ Demonstrate reliability in meeting deadlines
- ☐ Identify at least one professional development goal

Progressively Responsible Assignments:

1. _____
2. _____

Supervisor Observations:

SECTION 5. KNOWLEDGE TRANSFER (If Applicable)

For roles replacing outgoing staff or filling high-risk functions:

Critical Knowledge Areas to Transfer:

- ☐ Site-specific history
- ☐ Partner relationships and contacts
- ☐ Permit or regulatory processes
- ☐ Funding and reporting cycles
- ☐ Ongoing projects and commitments

Documentation Completed:

- ☐ Updated contact lists
- ☐ Site notes and project files organized
- ☐ Shared digital records reviewed
- ☐ Key deadlines documented

Notes:

SECTION 6. 90-DAY REVIEW SUMMARY

Performance Strengths Observed:

Areas for Continued Development:

DACUM Workforce Toolkit

Recommended Professional Development Actions:

- ☐ Enroll in DACUM-aligned training module
- ☐ Assign mentor
- ☐ Increase responsibility in specific duty area
- ☐ Schedule follow-up review in 3–6 months

Supervisor: _____ Date: _____

Employee: _____ Date: _____

3.5 Duty-Based Performance Review Form

Employee Information

Employee Name: _____

Position Title: _____

Organization/Office: _____

Supervisor Name: _____

Review Period: _____

☐ Probation Review (30/60/90 days) ☐ Annual Review ☐ Promotion Readiness

Performance Rating Scale

Entry / Probationary: Performs with guidance; building foundational competence

Proficient: Performs independently and consistently; meets role expectations

Advanced / Promotion-Ready: Leads, mentors, improves systems; ready for expanded responsibility

DACUM Duty-Based Performance Assessment

D1. Plan and Design Natural Resource Programs and Projects

Observable Outputs: Work plans, project scopes, timelines

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

D2. Manage Program Administration and Resources

Observable Outputs: Budget tracking, procurement, compliance documentation

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

D3. Build Capacity and Provide Technical Assistance

Observable Outputs: Training delivery, mentorship, technical guidance

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

D4. Collect, Manage, and Share Data and Knowledge

Observable Outputs: Field monitoring, QA/QC, GIS/data reporting

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

D5. Engage Communities and Stakeholders

Observable Outputs: Outreach, meeting facilitation, cultural protocols

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

D6. Implement and Manage Programs and Field Operations

Observable Outputs: Field execution, crew supervision, safety compliance

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

D7. Respond to Natural Resource Threats and Emerging Issues

Observable Outputs: Response coordination, invasive species actions

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

D8. Support Policy Development and Regulatory Processes

Observable Outputs: Regulatory reporting, policy translation into practice

Rating: ☐ Entry ☐ Proficient ☐ Advanced

Supervisor Notes / Examples:

Development Priority / Training Needed:

Summary and Forward Plan

Key Strengths Demonstrated:

Priority Competency Areas for Growth (Next 6–12 Months):

Recommended Professional Development Modules:

☐ Module 1 ☐ Module 2 ☐ Module 3 ☐ Module 4 ☐ Module 5 ☐ Module 6 ☐ Module 7

Supervisor Signature: _____ Date: _____

Employee Signature: _____ Date: _____

3.6 Knowledge -Transfer Planning Guide

Note: This guide is an example framework intended to be customized. Supervisors should revise and tailor the role sections to reflect local responsibilities, operating conditions, and institutional priorities.

Purpose

This guide supports agencies experiencing staff turnover, retirements, or role transitions in natural resource management programs. Its purpose is to reduce the loss of critical institutional knowledge by guiding intentional, supervisor-led knowledge transfer. Items in this guide are meant to be reviewed, discussed, demonstrated, or documented.

How to Use This Guide

1. Use this guide at the start of any planned transition, onboarding, or overlap period.
2. Treat each checklist item as a prompt for knowledge transfer, not a finished deliverable.
3. Check items once the outgoing staff has explained how the work is done, where information lives, and what to watch for.
4. Use the notes sections to capture context that cannot be reduced to checkboxes.
5. If time is limited, prioritize the sections marked as most critical for the role.
6. Complete the sign-off to confirm that reasonable transition steps were taken.

Critical Institutional Knowledge Areas

- Place-based ecological knowledge (sites, species, seasonal patterns)
- Community relationships, trust history, and informal governance norms
- Cultural protocols and expectations affecting field and community work
- Unwritten operational practices and known workarounds
- Funding cycles, reporting timelines, and compliance risks
- Emergency and rapid-response experience not captured in procedures

If You Only Write One Thing, Write This

If time or capacity allows you to write only one note before leaving a role, use the space below to document the single most important piece of knowledge the next person must understand to succeed in this position.

EXAMPLE

Role-Specific Succession Guidance: Forester I / II

Check items below once the outgoing staff has explained what is done, how it is done, where related information is stored, and what common issues arise.

Field Operations and Monitoring

- ☐ How site assessments are conducted and what indicators matter most
- ☐ How planting, pruning, fertilizing, and pest management are actually carried out
- ☐ How field monitoring is conducted and recorded
- ☐ Where monitoring data is stored and how it is used
- ☐ How equipment, tools, and sites are maintained
- ☐ What biosecurity practices are required and why

Tips for the Next Person

Things I wish I had known when I started:

Common mistakes or pitfalls to avoid:

Key relationships and how to work with them:

Seasonal, timing, or place-based considerations:

Supervisor Handoff and Sign-Off

- ☐ Priority knowledge areas reviewed
- ☐ Context, risks, and unwritten practices discussed
- ☐ Key documents, data locations, and contacts identified

Outgoing Staff Signature: _____ Date: _____

Incoming Staff Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

EXAMPLE

Role-Specific Succession Guidance: Forestry Chief

Check items below once the outgoing staff has explained what is done, how it is done, where related information is stored, and what common issues arise.

Program Planning and Oversight

- ☐ How management priorities are set and revisited
- ☐ How programs align with strategic plans and funder expectations
- ☐ Where major risks exist and how they are managed

Resource and Staff Management

- ☐ How budgets, funding, and reporting are managed in practice
- ☐ How staff and consultants are supervised and supported
- ☐ How partnerships and agreements function day to day

Tips for the Next Person

Things I wish I had known when I started:

Common mistakes or pitfalls to avoid:

Key relationships and how to work with them:

Seasonal, timing, or place-based considerations:

Supervisor Handoff and Sign-Off

- ☐ Priority knowledge areas reviewed
- ☐ Context, risks, and unwritten practices discussed
- ☐ Key documents, data locations, and contacts identified

Outgoing Staff Signature: _____ Date: _____

Incoming Staff Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

EXAMPLE

Role-Specific Succession Guidance: Biosecurity Officer

Check items below once the outgoing staff has explained what is done, how it is done, where related information is stored, and what common issues arise.

Threat Response and Readiness

- ☐ How high-risk threats are identified and tracked
- ☐ How inspections and site visits are conducted
- ☐ How response actions are coordinated with partners
- ☐ How incidents are documented and briefed

Policy and Compliance

- ☐ How biosecurity rules are applied in practice
- ☐ How compliance issues are handled
- ☐ How policy updates and regulatory processes are supported

Tips for the Next Person

Things I wish I had known when I started:

Common mistakes or pitfalls to avoid:

Key relationships and how to work with them:

Seasonal, timing, or place-based considerations:

Supervisor Handoff and Sign-Off

- ☐ Priority knowledge areas reviewed
- ☐ Context, risks, and unwritten practices discussed
- ☐ Key documents, data locations, and contacts identified

Outgoing Staff Signature: _____ Date: _____

Incoming Staff Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

EXAMPLE

Role-Specific Succession Guidance: Extension Agent

Check items below once the outgoing staff has explained what is done, how it is done, where related information is stored, and what common issues arise.

Community Engagement

- ☐ How community meetings and trainings are planned and facilitated
- ☐ How participation and feedback are encouraged
- ☐ How community needs are documented and followed up

Capacity Building

- ☐ How technical assistance is provided
- ☐ How educational materials are developed and shared
- ☐ How farmers, youth, and early-career professionals are mentored

Tips for the Next Person

Things I wish I had known when I started:

Common mistakes or pitfalls to avoid:

Key relationships and how to work with them:

Seasonal, timing, or place-based considerations:

Supervisor Handoff and Sign-Off

- ☐ Priority knowledge areas reviewed
- ☐ Context, risks, and unwritten practices discussed
- ☐ Key documents, data locations, and contacts identified

Outgoing Staff Signature: _____ Date: _____

Incoming Staff Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

EXAMPLE

Role-Specific Succession Guidance: Invasive Species Program Manager

Check items below once the outgoing staff has explained what is done, how it is done, where related information is stored, and what common issues arise.

Program Coordination

- ☐ How invasive species programs are planned and managed
- ☐ How field operations and response crews are coordinated
- ☐ How progress is tracked and strategies adapted

Preparedness and Response

- ☐ How response plans are maintained
- ☐ How rapid response funding and logistics are handled
- ☐ How recovery and restoration activities are organized

Tips for the Next Person

Things I wish I had known when I started:

Common mistakes or pitfalls to avoid:

Key relationships and how to work with them:

Seasonal, timing, or place-based considerations:

Supervisor Handoff and Sign-Off

- ☐ Priority knowledge areas reviewed
- ☐ Context, risks, and unwritten practices discussed
- ☐ Key documents, data locations, and contacts identified

Outgoing Staff Signature: _____ Date: _____

Incoming Staff Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

4 PROFESSIONAL DEVELOPMENT (PILLAR 3)

4.1 Modular Training Catalog

This modular training catalog presents a structured set of applied professional development offerings derived directly from the Pacific Islands DACUM occupational analysis. Each module reflects high-priority duty and task clusters identified across workshops as essential for workforce readiness and insufficiently addressed through formal coursework alone. Modules are designed to be flexible, stackable, and accessible across jurisdictions through hybrid delivery formats.

These offerings provide employers, educators, and funders with a practical menu for investing in applied capacity-building and strengthening education-to-employment pathways across the region.

Module Design Features (System-Level)

Each module includes:

- DACUM-traceable competency statements
- Applied tools and templates (work plans, engagement checklists, reporting formats)
- Case-based Pacific Island examples
- Options for micro-credential or certificate completion
- Adaptation for local governance and cultural context

Modules may be delivered:

- As standalone short courses
- Embedded within university or college programming
- Integrated into employer onboarding agreements
- Updated annually through the regional convening model

Recommended Stackable Pathways (Employer-Friendly)

Early-Career Workforce Readiness Sequence: Modules 1 → 2 → 3 → 4 (core applied foundation)

Monitoring & Adaptive Management Track: Modules 5 + 7 (data-to-decision capacity)

Leadership & Capacity Multiplication Track: Modules 6 + 2 + 7 (mentorship, coordination, governance)

Value for Employers and Funders

This modular system provides a scalable approach to workforce development by:

- Reducing onboarding burden for agencies and NGOs
- Improving retention through clear professional pathways
- Strengthening applied competencies tied to real job duties
- Supporting regional consistency while allowing local adaptation
- Creating fundable, trackable training investments rather than isolated events

Table 1. Proposed Modules and DACUM alignment.

Module #	Module Title	Primary Audience	Delivery Format	Typical Duration	Prerequisites / Notes	Aligned DACUM Duties
1	Community Engagement, Cultural Competency & Traditional Knowledge	Entry-level staff, outreach practitioners, program managers	Hybrid (online + facilitated practice)	6–10 hours or 2-day workshop	Recommended early-career; no prerequisites	D1, D3, D5, D6, D7, D8
2	Project Design, Work Planning & Coordination	Program leads, early-career coordinators	Hybrid or in-person	8–12 hours	Useful before assuming project management duties	D1, D2, D6
3	Financial Management, Grants & Administrative Compliance (Foundational)	NGO staff, government program managers, grant recipients	Online + applied templates	10–15 hours	Recommended for staff managing budgets or reporting	D1, D2, D6, D7
4	Field Operations, Safety & Compliance	Field crews, supervisors, response teams	In-person / field-based	1–3 days	Requires active field role; integrates SOP and PPE standards	D6, D7
5	Data Collection, Monitoring & Adaptive Management	Technicians, monitoring staff, planners, GIS users	Hybrid (field + data lab)	12–20 hours	Intro science background helpful but not required	D1, D4, D6, D7, D8
6	Technical Assistance, Training Delivery & Workforce Development	Extension staff, mentors, supervisors, trainers	Hybrid or in-person	8–12 hours	Best for mid-career staff supporting others	D3, D5, D6
7	Policy Literacy, Communication & Reporting	Agency staff, compliance roles, emerging leaders	Online + applied reporting practice	6–10 hours	Builds regulatory confidence and funder accountability	D1, D2, D7, D8

4.2 Curriculum Alignment Map

Audience: Universities, colleges, training providers

Use: Curriculum planning, accreditation conversations

Purpose: Demonstrate how foundational coursework contributes to DACUM competencies, where applied professional development modules fill gaps, and where internships/service learning fit.

This alignment map is intended as a living reference for institutions to identify where they already provide strong foundational preparation, and where DACUM-informed professional development modules can supplement applied workforce readiness.

Table 2. Curriculum-to-Competency Alignment Table.

DACUM Competency Domain	Representative Foundational Courses	Applied Module Supplement	Service Learning / Internship Fit	Enhancements
Community Engagement & Cultural Competency	NRM Survey; Environmental Studies; Ethnobotany	Module 1: Community Engagement, Cultural Competency & TEK	Community-based projects; outreach practicum	Need more structured facilitation + conflict-sensitive engagement
Project Design, Planning & Coordination	Agricultural Project Management; Conservation Planning	Module 2: Project Design, Work Planning & Coordination	Capstone project planning; agency placement	Limited applied scope/timeline/budget integration in coursework
Financial & Administrative Management	Intro to Business; Agricultural Economics	Module 3: Financial Management, Grants & Compliance	Grant-supported internship; admin rotation	Grant compliance and procurement rarely covered
Field Operations, Safety & Compliance	Forestry; Crop Production; Conservation Field Methods	Module 4: Field Operations, Safety & Compliance	Field crew practicum; safety certification	Need consistent SOP + biosecurity readiness training
Data Collection, Monitoring & Adaptive Management	GIS; Statistics; Environmental Biology; Soil Science	Module 5: Data Collection, Monitoring & Adaptive Management	Monitoring internships; applied GIS projects	Gap in QA/QC and translating data into decisions
Training Delivery & Workforce Development	Extension; Education electives	Module 6: Technical Assistance & Training Delivery	Peer-to-peer training; youth program facilitation	Mentorship + train-the-trainer skills not formalized
Policy Literacy, Communication & Reporting	Environmental Policy; Conservation Politics	Module 7: Policy Literacy, Communication & Reporting	Agency reporting practicum; policy brief assignment	Need stronger science-to-policy communication skills

4.3 Professional Development Modules and DACUM Duties

This crosswalk demonstrates how each professional development module strengthens specific practitioner-defined DACUM duties. It reinforces that the modules are not stand-alone trainings, but targeted interventions aligned to validated workforce functions.

Table 3. Module to DACUM Duty Crosswalk.

Module Title	DACUM Duties Supported (Codes and Names)	Primary Focus of Competency Development
Module 1. Community Engagement, Cultural Competency & Traditional Knowledge	D1 Plan and Design Natural Resource Programs and Projects D5 Engage Communities and Stakeholders D6 Implement and Manage Natural Resource Programs and Field Operations D7 Respond to Natural Resource Threats and Emerging Issues D8 Support Policy Development and Regulatory Processes	Community engagement planning and facilitation; integration of traditional ecological knowledge; cultural protocols; stakeholder inclusion; conflict-sensitive communication; gender and social considerations
Module 2. Project Design, Work Planning & Coordination	D1 Plan and Design Natural Resource Programs and Projects D2 Manage Program Administration and Resources D6 Implement and Manage Natural Resource Programs and Field Operations	Needs assessment and feasibility analysis; defining scope and deliverables; work planning and task sequencing; coordination across teams and partners; risk and contingency planning
Module 3. Financial Management, Grants & Administrative Compliance (Foundational)	D1 Plan and Design Natural Resource Programs and Projects D2 Manage Program Administration and Resources D6 Implement and Manage Natural Resource Programs and Field Operations D7 Respond to Natural Resource Threats and Emerging Issues	Budget development and tracking; grant writing and compliance fundamentals; procurement and contracting basics; financial documentation and reporting; alignment of budgets with work plans
Module 4. Field Operations, Safety & Compliance	D6 Implement and Manage Natural Resource Programs and Field Operations D7 Respond to Natural Resource Threats and Emerging Issues	Field safety and PPE; equipment operation and maintenance; biosecurity and contamination prevention; SOP use; crew supervision; operational risk awareness

Module 5. Data Collection, Monitoring & Adaptive Management	D1 Plan and Design Natural Resource Programs and Projects D4 Collect, Manage, and Share Data and Knowledge D6 Implement and Manage Natural Resource Programs and Field Operations D7 Respond to Natural Resource Threats and Emerging Issues D8 Support Policy Development and Regulatory Processes	Standardized data collection and monitoring; data management and QA/QC; introductory analysis; applied GIS and spatial literacy; use of data for adaptive management and decision-making
Module 6. Technical Assistance, Training Delivery & Workforce Development	D3 Build Capacity and Provide Technical Assistance D5 Engage Communities and Stakeholders D6 Implement and Manage Natural Resource Programs and Field Operations	Field-based training delivery; train-the-trainer methods; mentorship and coaching; learning exchanges; workforce pipeline support for youth and early-career professionals
Module 7. Policy Literacy, Communication & Reporting	D1 Plan and Design Natural Resource Programs and Projects D2 Manage Program Administration and Resources D7 Respond to Natural Resource Threats and Emerging Issues D8 Support Policy Development and Regulatory Processes	Policy and regulatory literacy; compliance roles; translating policy into practice; reporting to communities, partners, and funders; professional written, verbal, and media communication

4.4 Curriculum Mapping Guidance for Institutions

Aligning Academic and Training Programs with DACUM-Defined Workforce Needs

Purpose

This guidance supports universities, community colleges, and training providers in aligning courses, certificates, internships, and short-term trainings with practitioner-validated workforce duties identified through the DACUM process. It provides a structured approach to strengthening education-to-employment pathways without requiring full program redesign.

The goal is alignment, not replacement. Existing courses remain intact, but are intentionally mapped to real job functions to improve workforce readiness and signal applied competency to employers.

Step 1. Understand the Duty Framework

Begin by reviewing the eight DACUM-defined duty areas:

- D1 – Planning and Project Design
- D2 – Administration and Resource Management
- D3 – Capacity Building and Technical Assistance
- D4 – Data Collection and Knowledge Management
- D5 – Community Engagement
- D6 – Field Operations and Implementation
- D7 – Threat Response and Emerging Issues
- D8 – Policy and Regulatory Support

These duties represent shared functional work across Pacific Island natural resource agencies. Curriculum alignment should focus on where coursework supports these real-world responsibilities.

Step 2. Inventory Existing Courses and Learning Experiences

Conduct an internal inventory of:

- Degree-required courses
- Electives
- Certificate programs
- Short-term trainings
- Internships and field practicums
- Service-learning courses
- Capstone experiences

For each course, document:

- Core learning objectives
- Major assignments
- Field or applied components

- Assessment methods

Step 3. Map Courses to Duty Areas

For each course or learning experience, identify which DACUM duties it meaningfully supports.

Example Mapping Categories:

Primary Alignment – Course directly develops skills in this duty area

Secondary Alignment – Course reinforces knowledge relevant to this duty area

Limited Alignment – Course provides background knowledge only

Example (illustrative):

Course: Intro to GIS

Primary Alignment → D4 Data Collection and Knowledge Management

Secondary Alignment → D1 Planning and Design

Course: Agricultural Business Management

Primary Alignment → D2 Administration and Resource Management

Course: Environmental Conservation

Primary Alignment → D8 Policy and Regulatory Support

Secondary Alignment → D5 Community Engagement

Step 4. Identify Gaps in Applied Competency

After mapping, review coverage patterns:

- Which duties are well represented in coursework?
- Which duties have limited applied exposure?
- Are community engagement, administrative compliance, or field supervision underrepresented?
- Are students gaining hands-on documentation, reporting, and coordination experience?

Common gaps identified through DACUM include:

- Grant and financial management
- Interagency coordination
- Regulatory navigation
- Applied engagement facilitation
- Data-to-decision translation

Where gaps exist, institutions may:

- Integrate applied modules into existing courses
- Add co-curricular short courses
- Embed structured assignments aligned to specific duties

- Partner with agencies for field-based experience

Step 5. Integrate Professional Development Modules

Institutions may strengthen workforce alignment by incorporating DACUM-informed modules in one of the following ways:

Option A – Co-Curricular Model

Offer modules as non-credit professional development linked to academic programs.

Option B – Embedded Module Model

Integrate specific module content into existing courses (e.g., grant documentation within capstone projects).

Option C – Stackable Credential Model

Issue micro-credentials or certificates tied to module completion and verified applied practice.

Option D – Internship-Integrated Model

Align internship expectations to module competencies and require structured reflection on applied duties.

Step 6. Strengthen Experiential Learning Alignment

Ensure internships and field practicums:

- Reference DACUM duty areas explicitly
- Include supervisor feedback tied to competencies
- Require documentation of applied tasks
- Provide exposure to administrative and compliance functions, not only field tasks

Experiential learning should intentionally reinforce multiple duties rather than narrow technical specialization alone.

Step 7. Signal Competency to Employers

Institutions can improve employment transitions by:

- Including DACUM duty alignment language in course descriptions
- Issuing competency-based completion statements
- Sharing crosswalks with employer partners
- Co-developing onboarding agreements tied to modules

This strengthens clarity for hiring managers and reduces onboarding burden.

Curriculum Mapping Worksheet (Institution Use)

Course/Program: _____

Primary DACUM Duty Alignment: _____

Secondary DACUM Duty Alignment: _____

Applied Components Present? ☐ Yes ☐ No

Community Engagement Exposure? ☐ Yes ☐ No

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Administrative/Compliance Exposure? ☐ Yes ☐ No

Field Implementation Exposure? ☐ Yes ☐ No

Identified Gaps:

Proposed Alignment Enhancements:

Implementation Considerations

When aligning curriculum to workforce duties:

- Preserve institutional autonomy and academic integrity
- Avoid overloading programs with additional requirements
- Prioritize integration over expansion
- Use modular enhancements strategically
- Engage employer partners in review processes

Alignment is iterative. It should evolve alongside workforce conditions, regulatory changes, and environmental pressures.

Curriculum mapping strengthens the connection between education and real-world natural resource management practice. By aligning courses and training experiences with practitioner-defined duties, institutions can improve graduate readiness, reduce employer onboarding burden, and contribute to long-term workforce resilience across Pacific Island contexts.

4.5 Module 5 Curriculum Example

Module 5: Data Collection, Monitoring & Adaptive Management

Module Purpose: Strengthen applied competency in standardized data collection, quality control, basic analysis, and translating monitoring results into management decisions within Pacific Island natural resource contexts.

Primary DACUM Duties Supported

D4 – Data Collection and Knowledge Management
D1 – Planning and Project Design
D6 – Field Operations
D7 – Threat Response
D8 – Policy and Regulatory Support

Target Audience

Early-career professionals, technicians, probationary staff, or upper-division students entering NRM roles.

Delivery Format Options

- 5-day intensive (in-person field-based)
- 8-week hybrid short course
- Embedded within internship or practicum
- Modular weekend sessions

Total Recommended Contact Time

30–40 instructional hours (minimum 12 hours field-based)

Learning Outcomes

By the end of the module, participants will be able to:

1. Design a basic monitoring plan aligned to a management objective.
2. Apply standardized data collection protocols in field conditions.
3. Implement basic QA/QC procedures.
4. Conduct introductory data analysis and visualization.
5. Translate monitoring results into management recommendations.
6. Document findings in a professional summary format.

Module Structure

Unit 1. Monitoring Foundations (4–6 hours)

Topics

- Role of monitoring in NRM decision-making
- Linking monitoring to project objectives (D1 alignment)
- Types of monitoring: baseline, compliance, adaptive, rapid response
- Common Pacific Island monitoring challenges (scale, terrain, access, staffing)

Activity

Case review: Analyze an example monitoring plan and identify gaps.

Deliverable

Short written reflection: “Monitoring Objective and Indicators”

Unit 2. Protocol Design and Field Preparation (4–6 hours)

Topics

- Selecting indicators
- Sampling methods (random, stratified, transect-based, plot-based)
- Data sheets and digital tools
- Equipment preparation
- Risk and safety planning

Field Prep Exercise

Develop a simple monitoring protocol for a defined scenario (e.g., invasive plant spread, watershed health, agroforestry survival rates).

Deliverable

Draft monitoring protocol (1–2 pages)

Unit 3. Field Practicum (12–16 hours)

Activities

- Implement monitoring protocol in real or simulated field setting
- Practice GPS/GIS data capture
- Record standardized observations
- Conduct safety check-ins and documentation
- Complete daily field log

Competencies Assessed

- Accurate data recording
- Protocol adherence
- Safe equipment use
- Team coordination

Deliverable

Completed field dataset and field log

Unit 4. Data Management and QA/QC (4–6 hours)

Topics

- Data entry best practices
- Common data errors
- QA/QC checklist design
- Data storage and backup protocols
- Ethical data management

Activity

Students intentionally review flawed dataset and identify errors.

Deliverable

Corrected dataset with QA/QC notes.

Unit 5. Basic Analysis and Visualization (4–6 hours)**Topics**

- Introductory descriptive statistics
- Trend identification
- Basic spatial interpretation
- Graph and table development
- Translating technical results for non-technical audiences

Activity

Produce 2–3 simple visualizations from collected data.

Deliverable

Data summary brief (2–3 pages with visuals)

Unit 6. Adaptive Management and Communication (4 hours)**Topics**

- Interpreting results for decision-making
- Thresholds and trigger points
- Communicating uncertainty
- Integrating traditional ecological knowledge
- Reporting to supervisors, funders, and communities

Capstone Exercise

Develop a short management recommendation memo based on analyzed data.

Final Deliverables

Participants must submit:

- Monitoring protocol
- Clean dataset with QA/QC documentation
- Data summary with visualizations
- 1–2 page management recommendation memo

Assessment Rubric (Competency-Based)

1. Protocol Design (20%)
Clear objectives, appropriate indicators, logical sampling approach
2. Field Execution (20%)
Accuracy, safety adherence, completeness of field log
3. Data Integrity (20%)
Error identification, clean dataset, QA/QC documentation
4. Analysis & Visualization (20%)
Correct interpretation, clarity of visuals

5. Management Translation (20%)

Clear, actionable recommendations aligned to data

Micro-Credential Alignment

Credential Awarded:

Applied Monitoring & Data Competency – Level 1

Requirements:

- 80% or higher performance across rubric
- Supervisor or instructor validation
- Completed field practicum

Optional Level 2 (Advanced) Add-On

- Independent monitoring plan for active agency project
- Presentation to supervisor or stakeholder group
- Integration of findings into adaptive management update

Integration Into Toolkit

This module can be:

- Required in onboarding agreements for data-intensive roles
- Embedded in internships
- Offered regionally as a rotating training
- Stackable toward a Field Operations or Program Coordination certificate

4.6 Module 3 Curriculum Example

Module 3: Financial Management, Grants & Administrative Compliance

Module Purpose

Strengthen applied competency in budget development, grant compliance, procurement procedures, financial documentation, and reporting responsibilities within Pacific Island natural resource management programs. This module addresses recurring workforce gaps related to administrative accuracy, funding accountability, and regulatory compliance.

Primary DACUM Duties Supported

D2 – Manage Program Administration and Resources

D1 – Plan and Design Programs

D6 – Implement and Manage Field Operations

D7 – Respond to Natural Resource Threats

Target Audience

Early-career professionals, program coordinators, field leads transitioning into administrative responsibility, and upper-division students preparing for agency roles.

Delivery Format Options

- 4–5 day intensive workshop (in-person or hybrid)
- 6–8 week applied short course
- Embedded within capstone or internship
- Regional training cohort model

Total Recommended Contact Time

30–36 instructional hours

Learning Outcomes

By the end of this module, participants will be able to:

1. Develop a basic project budget aligned with defined objectives and deliverables.
2. Interpret key grant agreement terms and compliance requirements.
3. Track expenditures using structured documentation methods.
4. Navigate procurement procedures and documentation workflows.
5. Prepare a simple financial and programmatic progress report.
6. Identify compliance risks and corrective actions.

Module Structure

Unit 1. Funding Structures and Grant Fundamentals (4–6 hours)

Topics

- Types of funding (federal, territorial, NGO, cost-share)

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- Grant lifecycle overview
- Grant agreements and terms
- Roles and responsibilities (PI, fiscal officer, program manager)
- Allowable vs. unallowable costs

Activity

Review and annotate a sample grant agreement.

Deliverable

Short compliance summary identifying key obligations and deadlines.

Unit 2. Budget Development and Cost Alignment (6–8 hours)

Topics

- Budget categories (personnel, travel, equipment, supplies, indirect costs)
- Cost estimation
- Aligning budget to work plan
- Cost justification writing
- Budget revision procedures

Applied Exercise

Participants develop a draft budget for a defined natural resource project scenario (e.g., invasive species response, agroforestry expansion, watershed restoration).

Deliverable

- Line-item budget
- Budget narrative (1–2 pages)

Unit 3. Procurement and Financial Documentation (6–8 hours)

Topics

- Procurement thresholds and approvals
- Vendor documentation
- Reimbursement vs. direct payment processes
- Travel documentation
- Record retention policies

Simulation Activity

Complete a mock procurement workflow including purchase request, approval documentation, and expense tracking entry.

Deliverable

Completed procurement packet and expense tracking sheet.

Unit 4. Financial Tracking and Reporting (6–8 hours)

Topics

- Tracking expenditures against budget
- Variance analysis
- Matching and cost-share documentation
- Reporting timelines
- Common audit findings

Applied Exercise

Review a flawed financial tracking spreadsheet and identify compliance issues.

Deliverable

Corrected tracking sheet with variance explanation.

Unit 5. Compliance Risk and Corrective Action (4–6 hours)

Topics

- Common compliance risks in small island agencies
- Documentation gaps
- Late reporting
- Personnel time tracking
- Corrective action plans

Capstone Scenario

Participants respond to a mock audit inquiry requiring:

- Documentation review
- Identification of discrepancies
- Draft corrective action memo

Final Deliverables

Participants must submit:

- Annotated grant agreement summary
- Project budget and narrative
- Completed procurement workflow documentation
- Financial tracking spreadsheet
- 1–2 page compliance or corrective action memo

Assessment Rubric (Competency-Based)

1. Budget Accuracy and Logic (20%)
Alignment between activities and costs
2. Documentation Completeness (20%)
Procurement and tracking accuracy

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3. Compliance Interpretation (20%)
Correct identification of obligations
4. Financial Tracking Proficiency (20%)
Error identification and correction
5. Risk Awareness and Corrective Action (20%)
Clear, realistic mitigation strategy

Minimum Passing Standard: 80%

Micro-Credential Alignment

Credential Title

Applied Grants & Financial Compliance – Level 1

Requirements

- Successful completion of all deliverables
- Demonstrated ability to produce compliant budget and documentation
- Supervisor or instructor validation

Optional Level 2 (Independent Performance)

- Develop budget for an active agency project
- Submit real financial tracking documentation
- Present compliance summary to supervisor

Integration into Toolkit

This module can be:

- Required within first 12 months for staff handling grant-funded projects
- Integrated into onboarding agreements
- Embedded in academic capstones
- Delivered regionally to reduce compliance risk
- Used as mitigation strategy for audit findings

Agencies frequently experience funding delays, audit findings, or staff turnover linked to administrative knowledge gaps. Strengthening this competency reduces institutional vulnerability, protects funding continuity, and stabilizes program delivery across Pacific Island jurisdictions.

5 CONCLUSION

From DACUM Findings to Operational Workforce Infrastructure

The DACUM process has defined what natural resource management professionals across the Pacific Islands do and identified structural workforce risks. However, the professional development modules outlined in this toolkit represent a design framework, not yet a fully developed training catalog.

The next phase is structured implementation. This begins with module creation and governance, followed by agency adoption and institutional integration. Implementation should proceed in deliberate stages.

Stage 1. Module Development and Governance (Foundational Step)

Before agency-wide adoption, the seven DACUM-informed modules must be formally developed, validated, and hosted.

Key Questions to Resolve:

- Who will serve as module conveners and content leads?
- Which institution(s) will host delivery?
- Will modules be credit-bearing, non-credit, or hybrid?
- How will competency verification be standardized?
- Who maintains updates over time?

Recommended Lead Entities:

- A university or community college partner (curriculum host)
- A regional NRM network or convening body (coordination lead)
- Agency subject-matter experts (content co-developers)
- Federal partners (technical review and funding support)

Immediate Actions (0–6 months):

- Form a Module Development Working Group.
- Assign lead institution for hosting.
- Select 1–2 pilot modules (e.g., Financial Management; Data & Monitoring).
- Develop full curricula using the standardized template.
- Identify pilot cohort (agency staff).
- Establish competency verification criteria.

Deliverable:

- 1–2 fully built, field-tested modules ready for scaled delivery.

This stage converts the DACUM-informed design framework into operational training infrastructure.

Stage 2. Pilot and Refine (6–18 months)

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Who leads:

Lead institution, participating agencies, regional coordination partner.

Actions:

- Deliver pilot modules to selected agency staff.
- Collect supervisor and participant feedback.
- Evaluate applied competency gains.
- Refine curriculum, delivery format, and assessment standards.
- Clarify micro-credential or completion documentation process.

Outcome:

- Validated modules with documented learning outcomes.
- Clear cost model for delivery.
- Agreed governance and update process.

Stage 3. Agency Integration

Who leads:

Agency directors, HR leads, program managers.

Actions:

- Integrate validated modules into onboarding agreements.
- Require module completion for specific role types.
- Align performance evaluation language with DACUM duties.
- Identify high-risk roles and prioritize module participation.

Outcome:

- Reduced onboarding inconsistency.
- Strengthened administrative and compliance competency.
- Improved succession planning.

Stage 4. Institutional and Regional Scaling

Who leads:

Institutional partners and regional convening entities.

Actions:

- Embed modules in certificate pathways.
- Offer modules regionally on rotating schedule.
- Formalize stackable micro-credentials.
- Align internships and coursework to module competencies.
- Track workforce indicators regionally.

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Outcome:

- Education-to-employment alignment.
- Shared professional standards.
- Regional workforce coordination.

Table 4. Module Hosting Structure Decision Matrix.

Decision Criteria	Model A – University-Led Host	Model B – Regional Consortium Host	Model C – Agency Consortium Host
Curriculum Development Capacity	High. Established instructional design expertise and academic infrastructure.	Moderate. May require contracted instructional support.	Low–Moderate. Strong technical expertise; limited instructional design capacity.
Administrative Infrastructure	Strong registration, LMS, and credential systems already in place.	Variable. Depends on consortium staffing and structure.	Limited. Administrative burden falls on participating agencies.
Credentialing Authority	Clear pathway for credit-bearing or non-credit certification.	Can issue certificates; typically non-credit and less formal recognition.	Usually internal recognition only; limited formal credentialing authority.
Workforce Alignment	Moderate–High if agencies co-develop; risk of academic drift without strong practitioner input.	High. Designed around practitioner and regional priorities.	Very High. Directly aligned to operational agency needs.
Speed of Initial Launch	Moderate. Institutional approval processes required.	Moderate–Slow depending on governance clarity.	Fast for pilot delivery if internal expertise is available.
Long-Term Sustainability	Strong if embedded in continuing education or workforce development structures.	Dependent on stable funding and formalized governance agreements.	Vulnerable to staff turnover, workload pressures, and shifting priorities.
Regional Equity	May favor host jurisdiction unless structured intentionally.	Strong potential for cross-jurisdictional equity and shared ownership.	Variable. Risk of uneven participation across agencies.
Cost Structure	Tuition or fee-based model; potential access to federal training funds.	Shared-cost model; requires pooled funding agreements.	Agency-funded or grant-dependent; may strain agency budgets.
Adaptability to Emerging Needs	Moderate. Curriculum revision cycles may be slower.	High if governance is flexible and practitioner-led.	High in short term; dependent on agency staffing capacity.

Perceived Neutrality	Moderate. Seen as academic partner.	High. Shared regional ownership reduces dominance concerns.	Variable. May reflect priorities of lead agencies.
Best Use Case	Long-term institutionalization with credentialing priority.	Regional coordination model with shared governance.	Rapid pilot delivery or highly technical operational training.

Funding and Policy Integration

Federal partners, territorial leadership, and philanthropic funders can accelerate implementation by:

- Funding module development and instructional design.
- Recognizing workforce continuity as an eligible grant activity.
- Supporting pilot cohorts and evaluation.
- Incentivizing credential completion.

What Success Looks Like

Short-Term (1–2 Years):

- At least two DACUM-aligned modules fully developed and piloted.
- A designated host institution and governance structure.
- Agencies using structured onboarding tools.

Medium-Term (3–5 Years):

- Full seven-module catalog operational.
- Stackable credential framework implemented.
- Reduced onboarding time to independent performance.
- Documented knowledge transfer for high-risk roles.

Long-Term:

- Workforce continuity integrated into agency strategic planning.
- Regional coordination mechanisms institutionalized.
- Environmental program resilience strengthened through workforce stability.

The DACUM process identified what natural resource professionals are responsible for across the Pacific Islands. This toolkit outlines how those responsibilities can be supported through structured onboarding, professional development, and regional coordination. The next step is formal module development and hosting decisions. Without those operational choices, the framework cannot move from design to implementation.

6 APPENDIX: FULL DACUM CHART

Duty	Task Code	Task Statement
Plan and Design Natural Resource Programs and Projects	D1-T1	Assess natural resource and forest management needs
	D1-T2	Survey community priorities and stakeholder perspectives
	D1-T3	Conduct key informant interviews
	D1-T4	Review past and current programs and initiatives
	D1-T5	Evaluate gender, cultural, and social considerations in project context
	D1-T6	Identify knowledge gaps and information needs
	D1-T7	Conduct regulatory and policy reviews
	D1-T8	Engage community stakeholders and contextual experts in co-design processes
	D1-T9	Integrate traditional ecological knowledge into project design
	D1-T10	Identify project sectors, focus areas, and boundaries
	D1-T11	Define project purpose, goals, and objectives
	D1-T12	Align projects with strategic plans and frameworks (e.g., FAP)
	D1-T13	Assess project feasibility and implementation capacity
	D1-T14	Determine funding requirements and resource needs
	D1-T15	Identify key personnel and project team members
	D1-T16	Conceptualize project implementation approaches
	D1-T17	Develop work plans and objective-based task layouts
	D1-T18	Create project timelines and milestones
	D1-T19	Develop program deliverables and outputs
	D1-T20	Prepare logic models and theory of change
	D1-T21	Align deliverables, timelines, and budgets
	D1-T22	Identify potential project barriers and risks
	D1-T23	Develop contingency and risk mitigation plans
	D1-T24	Develop coordination and collaboration platforms
	D1-T25	Create monitoring, evaluation, and learning (MEL) plans
	D1-T26	Collect and document baseline data
	D1-T27	Source and secure project funding
	D1-T28	Write project and funding proposals
	D1-T29	Develop project transition and sustainability plans
Manage Program Administration and Resources	D2-T1	Establish and manage program and project budgets
	D2-T2	Develop and implement financial policies, procedures, and systems
	D2-T3	Align budget allocations with program priorities and funder requirements
	D2-T4	Obtain budget approvals and endorsements
	D2-T5	Track, reconcile, and monitor program expenditures
	D2-T6	Prepare, submit, and coordinate financial reports
	D2-T7	Ensure compliance with donor, financial, and regulatory requirements
	D2-T8	Secure, diversify, and leverage funding sources
	D2-T9	Assess long-term financial stability and sustainability

	D2-T10	Process procurement requests, purchase orders, and contracts
	D2-T11	Maintain program financial records, ledgers, and filing systems
	D2-T12	Develop and monitor project plans, schedules, and timelines
	D2-T13	Create and update strategic action plans and annual work plans
	D2-T14	Coordinate reporting schedules and progress reviews
	D2-T15	Monitor program progress, outputs, and resource utilization
	D2-T16	Monitor social and environmental issues related to program operations
	D2-T17	Manage human resources, staffing, and personnel actions
	D2-T18	Recruit, onboard, supervise, and evaluate staff and consultants
	D2-T19	Develop and manage consultant terms of reference (TORs)
	D2-T20	Process payroll, compensation, leave, and travel requests
	D2-T21	Update position descriptions and assign work duties
	D2-T22	Facilitate staff performance reviews and professional development
	D2-T23	Support safe, functional, and compliant work environments
	D2-T24	Provide and coordinate safety briefings and training
	D2-T25	Obtain required permits, licenses, and security clearances
	D2-T26	Develop, update, and implement standard operating procedures (SOPs)
	D2-T27	Streamline and improve administrative procedures and systems
	D2-T28	Coordinate IT needs and utilize organizational technology
	D2-T29	Maintain project documentation and administrative records
	D2-T30	Coordinate internal team meetings and partner engagements
	D2-T31	Collaborate with program staff, partners, and leadership
	D2-T32	Respond to public and stakeholder inquiries
	D2-T33	Disseminate success stories and program communications
	D2-T34	Provide reports and updates to stakeholders and donors
	D2-T35	Negotiate program support and partnership contributions
Collect, Manage, and Share Data and Knowledge	D3-T1	Gather technical and baseline data
	D3-T2	Collect survey and questionnaire data
	D3-T3	Prepare project questionnaires and data collection tools
	D3-T4	Conduct vegetation, forest, soil, and marine surveys
	D3-T5	Monitor forest inventory and natural resource conditions
	D3-T6	Monitor drought, water wells, and freshwater lens conditions
	D3-T7	Procure equipment and supplies for data collection and inventory
	D3-T8	Input, store, and manage collected data
	D3-T9	Analyze and interpret collected data
	D3-T10	Integrate relevant data into policies, plans, and decision-making
	D3-T11	Report survey findings and monitoring results
	D3-T12	Publish and publicize data results and applications
	D3-T13	Create environmental awareness and data-informed outreach content
	D3-T14	Collaborate with partner agencies on data collection and sharing (e.g., MWSC, EPA)
	D3-T15	Compile and synthesize relevant research

	D3-T16	Develop research-based applications and proposals
	D3-T17	Recommend data-driven natural resource strategies to decision-makers
	D3-T18	Develop and maintain knowledge-sharing platforms (e.g., websites, databases)
	D3-T19	Disseminate data and findings through workshops and presentations
	D3-T20	Assess existing curricula and training materials
	D3-T21	Develop and update natural resource management curricula and degree programs
	D3-T22	Convert and share curricula through online platforms and partnerships
	D3-T23	Conduct occupational and workforce analyses
	D3-T24	Promote internships and experiential learning opportunities
	D3-T25	Mentor undergraduate and graduate students
Engage Communities and Stakeholders	D4-T1	Develop community and stakeholder engagement plans and strategies
	D4-T2	Plan engagement logistics and obtain required permissions
	D4-T3	Assign engagement team roles and responsibilities
	D4-T4	Identify and recruit relevant community participants
	D4-T5	Mobilize engagement teams and resources
	D4-T6	Schedule and plan community meetings and events
	D4-T7	Facilitate community meetings and engagement activities
	D4-T8	Provide hands-on learning and participatory engagement activities
	D4-T9	Explore and document community and farmer issues
	D4-T10	Develop and deliver training programs for community members
	D4-T11	Provide farmer- and stakeholder-focused training
	D4-T12	Coordinate learning exchanges and peer-to-peer engagement
	D4-T13	Exchange and integrate traditional knowledge and stewardship practices
	D4-T14	Develop and distribute educational and cultural materials
	D4-T15	Provide engagement incentives and refreshments, as appropriate
	D4-T16	Facilitate conflict resolution and address stakeholder concerns
	D4-T17	Conduct needs assessments and baseline community surveys
	D4-T18	Conduct pre- and post-engagement surveys
	D4-T19	Evaluate engagement activities and participation outcomes
	D4-T20	Assess long-term impacts of engagement efforts
	D4-T21	Secure adequate funding to support engagement activities
	D4-T22	Coordinate with government leaders and institutional partners
	D4-T23	Notify communities and stakeholders of findings and results
	D4-T24	Disseminate monitoring results and shared outcomes
	D4-T25	Publicize future opportunities and ongoing initiatives
	D4-T26	Document engagement activities and evidence
	D4-T27	Prepare engagement reports and summaries
	D5-T1	Conduct capacity and needs assessments
	D5-T2	Identify training needs and knowledge gaps
	D5-T3	Identify community and organizational resource needs

Build Capacity and Provide Technical Assistance	D5-T4	Identify specialty and inventory resources
	D5-T5	Align training objectives with desired outcomes
	D5-T6	Design training modules and courses
	D5-T7	Develop educational and outreach content
	D5-T8	Review and update curricula
	D5-T9	Develop technical manuals and handbooks (e.g., agroforestry handbook)
	D5-T10	Conduct field-based training
	D5-T11	Facilitate classroom, virtual, and hybrid trainings
	D5-T12	Implement train-the-trainer programs
	D5-T13	Provide ongoing technical assistance and advisory support
	D5-T14	Respond to requests for technical advice
	D5-T15	Facilitate knowledge sharing and learning exchanges
	D5-T16	Map and engage knowledge and research networks
	D5-T17	Collaborate with local institutions and partners
	D5-T18	Consult with technical, cultural, and subject-matter experts
	D5-T19	Incorporate traditional and scientific knowledge into programs
	D5-T20	Apply and revitalize traditional agricultural practices and stewardship
	D5-T21	Incorporate modern technologies and tools (e.g., AI, data systems)
	D5-T22	Maintain and update technical proficiency
	D5-T23	Mentor youth and early-career professionals
	D5-T24	Support internships, fellowships, and scholarship opportunities
	D5-T25	Evaluate student and trainee performance
	D5-T26	Encourage participation in external trainings and exchanges
	D5-T27	Engage stakeholders and build collaborative relationships
	D5-T28	Determine appropriate communication methods for target audiences
	D5-T29	Create and disseminate awareness and promotional materials
	D5-T30	Promote available programs, services, and resources
	D5-T31	Identify and pursue funding opportunities
	D5-T32	Provide grant writing and proposal development support
	D5-T33	Support submission of funding and development applications
	D5-T34	Evaluate personnel capacity and compensation considerations
	D5-T35	Track capacity-building progress and outcomes
	D5-T36	Collect pre- and post-training data
	D5-T37	Evaluate effectiveness and implementation of technical assistance
	D5-T38	Formulate recommendations for improvement
	D5-T39	Document institutional knowledge and best practices
	D5-T40	Compile and synthesize relevant research
	D5-T41	Create information resources for sharing
	D5-T42	Disseminate technical information and key data for decision-making
	D5-T43	Prepare reports and project narratives
	D6-T1	Identify target communities and stakeholders
	D6-T2	Develop outreach and engagement strategies

Implement and Manage Natural Resource Programs and Field Operations	D6-T3	Develop program scope, objectives, and work plans
	D6-T4	Develop project timelines and tracking systems
	D6-T5	Develop contingency and risk management plans
	D6-T6	Secure program funding and allocate program budgets
	D6-T7	Finalize agreements, contracts, and memoranda of understanding
	D6-T8	Identify and engage project partners and collaborators
	D6-T9	Mobilize program resources, equipment, and supplies
	D6-T10	Hire, assign, and supervise project staff, contractors, and volunteers
	D6-T11	Assign roles, responsibilities, and specific field tasks
	D6-T12	Train staff, partners, farmers, and volunteers
	D6-T13	Coordinate program logistics and daily operations
	D6-T14	Prepare vehicles, equipment, and field supplies
	D6-T15	Provide safety briefings and ensure proper PPE use
	D6-T16	Implement cultural protocols and community expectations
	D6-T17	Conduct site assessments and identify site characteristics
	D6-T18	Establish demonstration plots, nurseries, and installations
	D6-T19	Implement natural resource management activities (e.g., planting, pruning, fertilizing, pest management)
	D6-T20	Conduct surveys and field monitoring (ecological, marine, socio-economic)
	D6-T21	Monitor seedling distribution and best management practices
	D6-T22	Collect, analyze, and manage field and project data
	D6-T23	Monitor project progress against indicators and milestones
	D6-T24	Evaluate short- and long-term environmental and social impacts
	D6-T25	Apply adaptive management based on monitoring results
	D6-T26	Maintain project sites, equipment, and installations
	D6-T27	Ensure equipment cleaning, sterilization, and biosecurity
	D6-T28	Review program compliance with requirements and standards
	D6-T29	Prepare and submit periodic progress and data reports
	D6-T30	Disseminate project results and communicate progress to stakeholders
	D6-T31	Engage communities, leaders, and agencies throughout implementation
	D6-T32	Promote public awareness through media, events, and outreach
	D6-T33	Mitigate implementation challenges and conflicts
	D6-T34	Conduct after-action reviews and periodic program evaluations
	D6-T35	Transition, close out, and document completed projects
	D6-T36	Celebrate program successes and achieved objectives
	D7-T1	Prepare funding needs and resource requirements for rapid response
	D7-T2	Request and secure emergency response funds
	D7-T3	Develop, update, and maintain rapid response plans
	D7-T4	Integrate site-specific cultural and place-based protocols into response actions
	D7-T5	Develop project plans for threat response

Respond to Natural Resource Threats and Emerging Issues	D7-T6	Develop and maintain standard operating procedures (SOPs) for response
	D7-T7	Identify and maintain high-risk threat lists
	D7-T8	Develop and maintain threat site data sheets
	D7-T9	Prioritize response efforts based on risk and impact
	D7-T10	Implement timely and appropriate response actions
	D7-T11	Conduct site visits to affected communities and locations
	D7-T12	Dispatch and manage appropriate response crews
	D7-T13	Provide logistical and operational support to field crews
	D7-T14	Identify, train, and maintain reliable responders
	D7-T15	Organize and adjust response activities based on seasonal trends
	D7-T16	Respond to emergency requests and incident reports
	D7-T17	Coordinate response actions with government partners
	D7-T18	Coordinate communication among partners and agencies
	D7-T19	Monitor environmental indicators (e.g., groundwater, fire conditions)
	D7-T20	Maintain operational communication systems (e.g., radio communication)
	D7-T21	Map impact areas and affected sites
	D7-T22	Assess and analyze threat behavior (e.g., fire behavior, pest spread)
	D7-T23	Identify intercepted pests and verify invasive species presence
	D7-T24	Investigate causes of natural resource threats (e.g., wildfire origins)
	D7-T25	Interface with subject matter experts and technical specialists
	D7-T26	Maintain and update subject matter expert contact lists
	D7-T27	Present natural resource and incident data to decision-makers
	D7-T28	Consult with public officials and leadership
	D7-T29	Provide pre-incident and post-incident briefings
	D7-T30	Influence and support public awareness and risk communication
	D7-T31	Organize restoration and recovery activities (e.g., outplanting)
	D7-T32	Maintain native plant nursery resources for response and recovery
	D7-T33	Maintain community relationships during and after response actions
	D7-T34	Incorporate stakeholder input into response planning and actions
	D7-T35	Convene natural resource and partner coordination meetings
	D7-T36	Propose mitigation or resolution strategies for invasive species and threats
	D7-T37	Enforce natural resource regulations during response actions
	D7-T38	Review and revise incident and wildfire response reports
	D7-T39	Recommend updates to biosecurity and natural resource policies
	D7-T40	Facilitate cooperation among federal, territorial, and external partners
	D8-T1	Identify applicable rules and regulations related to biosecurity (e.g., 5HCA, 8GAAR)
	D8-T2	Review existing biosecurity and environmental public laws
	D8-T3	Draft and update rules and regulations associated with biosecurity laws

Support Policy Development and Regulatory Processes	D8-T4	Secure stakeholder support for proposed policy and regulatory updates
	D8-T5	Clarify and document fee authorities and enforcement mechanisms (e.g., ISIFF)
	D8-T6	Develop and secure approval for annual policy-related work budgets
	D8-T7	Develop and maintain an annually updated invasive species priority list
	D8-T8	Establish and support governance bodies and committees (e.g., grant committees, GISC)
	D8-T9	Facilitate leadership selection and governance processes (e.g., chair elections)
	D8-T10	Communicate policy issues and recommendations to elected officials
	D8-T11	Build and sustain public support for environmental and biosecurity policies
	D8-T12	Develop policy briefs and position papers for decision-makers
	D8-T13	Provide evidence-based policy recommendations
	D8-T14	Provide technical guidance and subject-matter expertise to inform policy
	D8-T15	Review, revise, and adapt policies to local cultural, social, and environmental contexts
	D8-T16	Identify policy gaps and emerging regulatory needs
	D8-T17	Conduct policy-relevant research and analysis
	D8-T18	Compare national, regional, and international standards and best practices
	D8-T19	Gather and synthesize field data to support policy development
	D8-T20	Evaluate policy relevance, effectiveness, and outcomes
	D8-T21	Seek and secure funding to support policy development and updates
	D8-T22	Facilitate policy-focused consultations and learning exchanges
	D8-T23	Participate in and support stakeholder consultation processes
	D8-T24	Promote community awareness of environmental and biosecurity policies
	D8-T25	Promote environmental policy awareness through educational systems
	D8-T26	Support hiring, training, and coordination of enforcement personnel
	D8-T27	Enforce environmental and biosecurity policies in coordination with authorities
	D8-T28	Develop and implement regulatory compliance systems
	D8-T29	Deliver policy and regulatory training to staff, partners, and stakeholders
	D8-T30	Monitor illegal or non-compliant activities related to natural resources