

# Protected Area Short Courses in Australia, Asia and the Pacific: training issues, needs and recommendations

for the
Protected Areas Learning and Research Collaboration by
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Consultation brief

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### Acknowledgements

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#### **Disclaimer**

This was a short scoping project, and while all due care and diligence was exercised, no representation or warranty, express or implied, is made as to the relevance, accuracy, completeness or fitness for purpose of this document in respect of any particular user's circumstances.

### 1. INTRODUCTION

The Protected Areas Learning and Research Collaboration (http://www.palrc.com/) is a tertiary and vocational education and research initiative dedicated to natural and cultural heritage protection, stewardship and conservation management, and capacity development for Australia, Asia, and the Pacific. PALRC is a collaboration of organisations that includes several Australian universities and non-government organisations<sup>1</sup>.

This consultation brief is the summary of a report commissioned by PALRC in 2018 (full report is available at www.palrc.com), with the following aims:

Review the range of current models for short courses that meet protected area agency, Indigenous Protected Area (IPA) and non-government organisation land managers' needs

Assess the potential for PALRC partners to adapt and/or develop new short courses that meet these needs

Target audiences for the review include government and private sanctuaries, protected area (PA) management agencies, Indigenous protected areas (IPAs), environmental non-government organisations (NGOs) that look after land, and community-based conservation practitioners, in Australia and the Asia-Pacific region.

The practice of conservation in any context is complex and interdisciplinary and requires a common and diverse set of skills and knowledge. The training needs identified in the report reflect this wider set of conservation skills and knowledge, relevant beyond management of protected areas. This wider relevance also reflects the continuing evolution of the understanding of the term "protected area" and that conserving protected areas necessarily involves unprotected landscapes and natural resource management in general. The term "protected landscape" is acknowledged as a term compatible with that of "protected area" as a better reflection of connectivity across the landscape, including of the connectivity between nature and culture.

This report documents the case for new short courses that can build the skills and knowledge needs of people working in protected areas and related conservation activities in Australia and the Asia-Pacific. The dimensions of the global protected area 'capacity challenge' and the need for a sustained cumulative program of capacity development is already well documented (e.g. Appleton 2016a,b²; O'Connell et al. 2017³; IUCN-WCPA⁴ Strategic Framework for Capacity Development 2015-2025; IUCN-BIOPAMA Strategy for Capacity Development for Protected Areas and Other Conserved Areas in the Pacific Island Region⁵ 2015-2020). This report focuses on identifying priority needs for tailored short courses that can complement formal education and training offered through universities and technical and further education (TAFE) colleges. To that end, training⁶ issues and needs are identified along with current courses and providers, and proposes how PALRC can help meet the defined capacity challenge.

<sup>1</sup> University of Tasmania, Charles Darwin University, Murdoch University, Charles Sturt University, Tasmanian Land Conservancy, Conservation Management Pty Ltd, Blue Mountains World Heritage Institute.

<sup>2</sup> Appleton, M.R. 2016a. Towards Strengthened Conservation Planning in South-Eastern Europe: Capacity Development Needs and Priorities for Nature Conservation in South-Eastern Europe. IUCN, Gland, Switzerland, and Belgrade, Serbia. Appleton, M.R. 2016b. A Global Register of Competences for Protected Area Practitioners. Gland, Switzerland: IUCN.

<sup>3</sup> O'Connell, M.J., Nasirwa, O., Carter, M., et al. 2017. Capacity building for conservation: problems and potential solutions for sub-Saharan Africa. Oryx 51:1-11.

<sup>4</sup> International Union for the Conservation of Nature (IUCN) - World Commission on Protected Areas (WCPA) <a href="http://cmsdata.iucn.org/downloads/sfcd\_final\_july\_2015.pdf">http://cmsdata.iucn.org/downloads/sfcd\_final\_july\_2015.pdf</a>

<sup>5</sup> Scherl and O'Keeffe 2016 https://portals.iucn.org/library/sites/library/files/documents/2016-005.pdf

<sup>6</sup> A large number of terms and definitions are used for "training" outside the formal education sector, including building of capacity, skills, or competency, and professional development. In this report, the terms "training" and "skills building" en compass the wide set of competence, skills and knowledge that are needed for conservation.

## 2. An invitation

PALRC invites your comments on:

- A. What you agree or disagree with regarding the findings of the review (section 3)
- B. What are priority topics for people and places with whom and with which you are familiar (see section 4 table 1)
- C. What are the training packages most relevant to you for B above (see section 4 table 2)
- D. How you might partner with or engage PALRC to meet your needs and in what time frame

Please contact Doug Humann at PALRC: info@palrc.com

# 3. Key findings of the review

The information in this report is derived from discussions with a wide range of people involved in protected area conservation, including the various practitioner levels and target audiences, as well as from published and unpublished literature and reports including internet searches.

- The report highlights the increasing interconnectedness and interdependencies regionally and internationally with many new opportunities for collaboration, including emerging cross-sectoral partnerships (e.g. agriculture, conservation, business). The challenge in Australia and the region in securing long-term financial support for environmental and culturally appropriate training, may lead to development of training models that are unique to this region.
- There is a demand from all target audiences for a more strategic and responsive approach to training that aligns with funding availability and training needs.
- Short courses are in high demand, and in particular for short online accredited courses that are blended with face-to-face intensives.
- Different models have emerged for short course delivery (Table 2) to address issues and needs, with national and regional reach. These aim to provide a more collaborative and strategic approach to skills training that is adapted to the regional and cultural context of specific audiences, and with better alignment between skills and knowledge needs, funding and course providers.

Commonly identified issues relating to the dimensions of training (skills, process, content, approach), that reflect feedback from all target audiences in the region, are summarized below.

Skills - acquiring the needed skills

- Current training and course offerings are inadequate for meeting the diversity and level of knowledge and skills needed for addressing the complex challenges of the protected area sector
- Training is often ad hoc and opportunistic (subject to funding): it needs to be delivered within a coherent training program that provides staged skills development over time

Process - how training is conducted and learning consolidated

- There is demand for more experiential and project-based learning for integration of theory and fieldwork, and training based on local examples
- Training requires more follow-through and mentoring
- A desire for peer networks and communities of practice to support ongoing learning and sharing
- Need more local delivery of courses

- Requests for more two-way cross-cultural learning (particularly for Indigenous PA practitioners)
- Need for more staff and especially ranger exchanges (between Indigenous / non-Indigenous exchanges / international / high profile parks)

Content knowledge - what is taught

- Co-design of courses is recommended between local communities and training providers, to match specific local needs
- Short courses are often not sufficiently adapted for local context, and too generic, formulaic or academic

Approach - other issues and opportunities

- Lack of coordination between training providers (including non-government sectors, government training colleges and universities) and need for a partnership approach between training providers and with target audiences
- Funding Programs are often prohibitively expensive for participants or their organisations, and short-term funding does not sustain ongoing course delivery for progressive knowledge and skills building
- Scholarships provide important opportunities for building professional capacity across the region, and a recommended focus is on growing funding and in-kind support for PALRC scholarships for advanced training in PA management
- Pathways are needed for transition through levels of training from VET (vocational education and training) to university qualifications
- There is a need for recognition, endorsement or accreditation of short courses (e.g. by universities and/or the IUCN)

# 4. Training proposals to address needs & issues

- → Table 1 provides a basis for further discussion with partners and specific target audiences.
- → Table 2 presents detailed training package proposals for specific audiences.

The list of topics is defined both from the practitioner's view of what the needs are, as well as from a meta-understanding of the purpose and meaning of protected areas (guided by the IUCN Global Register of Competences<sup>7</sup>). This helps to ensure that the new short courses are strategic as well as being responsive to specific skill needs. The courses therefore include broader and deeper understanding, as well as specific practical skills that are identified as needed by practitioners and yet rarely offered in a form adapted to local situations.

In addressing the issues identified above, course development and delivery should incorporate the following features:

- **Co-design** of programs with target audience to ensure they are fit for purpose (i.e. meet workplace and on-ground training needs)
  - A partnership approach across Australia and the region, that draws upon content and expertise across a wide network of trainers and educators that includes universities, industry, government, and non-government sectors, with PALRC providing an umbrella for a wide network of delivery that includes on-ground facilitators who provide a range of skills and knowledge and deliver training in versatile formats.

<sup>7</sup> https://www.iucn.org/content/a-qlobal-register-competencies-protected-area-practitioners

- Supporting Indigenous people and communities to maintain and establish their own learning approaches and networks, and to making best use of traditional knowledge to help achieve conservation goals through two-way cross-cultural learning and knowledge integration.
- The training approach is based on participatory learning, which recognises participant's own experience, with a format and facilitation that encourages participants to share their knowledge in a way that fosters individual and collective learning. Courses build on participants' existing leadership capabilities and experiences in natural resource and protected area management.
- Experiential and project-based learning are emphasized
  - Blended delivery models (face-to-face intensives and online learning)
  - On-country and project-based learning for integration of theory and fieldwork
- Follow-through and mentoring is built into training packages as needed
  - o Ranger and other staff exchanges post-training, and voluntary placements
  - o Pathways from VET through university education are developed and supported
- Peer network building through the PALRC online Community of Practice for course alumni
- Funding that is ongoing to allow for strategic and progressive knowledge and skills development
  - Courses delivered within a framework that allows for irregularity of funding (so even if training is stop/start, then it can still be part of a sequential training program) including short-term refresher courses to fill in training gaps
  - Long-term resourcing where possible
- Evaluation of course content and delivery, learning outcomes and long-term impact analysis
- Local delivery preferentially

A database of courses and providers (international) is available at http://www.palrc.com/research/ or please contact info@palrc.com



# Table 1. Priority training needs for the range of target audiences.

#### Notes:

- Topics are not in order of priority, are not definitive or exhaustive, and are a work-in-progress that provides a basis for development of new short courses
- Target audiences include all governance types for protected areas (i.e. government, shared, private, and Indigenous and local communities)
- Categories and competence levels based on the IUCN Global Register of Competences:
   Personnel level 1 Skilled worker; level 2 Middle management / technical specialist; level 3 Senior Manager; level 4 Executive https://www.iucn.org/content/a-global-register-competencies-protected-area-practitioners

TOPIC	NOTES	TARGET AUDIENCE	COMPETENCE LEVEL
Policy, planning and	d projects		
Protected Area Essentials	The how, why and what of protected areas: their definition; levels of protection & management; basic knowledge in biodiversity conservation; interconnectedness of cultural, natural & social values.	All (specific request by Australian state gov't agencies & NGO-managed lands)	For new employees / not familiar with PA context (could be any personnel level)
Evidence-based conservation practice, policy and management planning  An introduction to evidence-based public policy management, and how to maintain ecological integrity.  Understanding trends and operationalizing management based on evidence.	(a) Learning & applying the Open Standards (OS) adaptive mgmt. framework – helps teams be systematic about planning, implementing, & monitoring conservation initiatives to learn what works, what doesn't, & why - & ultimately adapt and improve efforts.  (b) Understanding how to use scientific data for policy & management; working with scientists; understanding how science is carried out in practice; skills in basic monitoring for ecological integrity; differences between good science & poor, ethics, graphical representation of & interpreting data, research design & basic statistical methods that can be used to summarise, analyse & interpret scientific data.	Identified by all target audiences	Level 1-3
Protected Area Governance	Specifically in relation to:  Indigenous land  Access and use rights in and around PAs, and participation in decision making processes  Community engagement	All	Level 3-4
Master classes in key areas of conservation competency	Short dynamic workshops (e.g. 2 days max, plus follow-up session), 'real project' content, and mentoring as arranged.  For example, navigating complexity, high impact conservation program design and co-design, collective leadership, and fostering innovative collaboration.	All	Level 3-4
Personal & relation	ship competences		
Human factors of management	Leadership (individual and collective), working with communities, communicating conservation, navigating complexity, conflict resolution, personal development, building & managing partnerships.	Identified by all target audiences	All

Personal and organizational resilience  In the face of crisis and includes engaging with communities and personal recovery from trauma	Risk and disaster preparedness and recovery (including preparing for climate change) and engaging communities in times of crisis. This relates to trauma and stress and is a different focus from incidence management training that does not address these issues and the fall-out from incidents.	Need identified by Australian government agencies	All levels
Train-the-Trainer (T-the-T) courses that are adapted for the PA sector	Addressing the issues that have been identified at various levels, namely:  Less formulaic, more focused on PAs and t-the-t at a functional, not generic, level  Building capacity for community to deliver their own training  Enabling staff to pass on their skills  For suitable recipients who have the personal skills and a workplace mandate to train  Being trained to pass on the message (somewhat like Al Gore's T-the-T initiative for communicating about climate change)	Need identified by all audiences.	Level 2-4
Sustainability, local	communities & cultures		
Cross-cultural competency and knowledge integration	Various dimensions and components for both Indigenous and non-Indigenous people and includes: cross-cultural knowledge integration; cross-cultural competency and Indigenous cultural protocols (for non-Aboriginal people to work effectively with Aboriginal communities and for Aboriginal people to work effectively within their own communities); working with conflict over management issues within and between communities; the practice and multiple values of cultural burning.  NB. Cross-cultural learning and different cultural knowledge bases can be incorporated into any of the other topics in this table.  NAILSMA is currently developing strategic principles and guidelines for blending traditional and scientific approaches to land management <sup>1</sup> .	All (most target audi- ences identify a need for more explicit programs for cross-cultural learning e.g. Indigenous and 'western' traditions)	All
Cultural hertage planning & management	Planning and managing for cultural heritage on parks for both Indigenous and non-Indigenous heritage and including cultural database management	Request from NGOs, Indigenous communities & government agencies	Level 2-3
New business enterprises	Sustainable livelihoods including new business enterprises based on natural resources e.g. connect training to sites to help address sustainability issues and economic development issues where there are many native title claims and joint management opportunities.	Request by Indigenous communities	Level 2-3



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Tourism management	Creating visitor experiences (e.g. knowledge-sharing and activities for meaningful experiences and to raise visitor awareness; defining target markets).	Identified need by Australian	Level 3-4
Managing visitation and the visitor economy to create the right out-	Building business partnerships and ecotourism opportunities.	government agencies and Indigenous	
comes for natural and cultural heritage.	Managing and avoiding unsustainable levels and types of use (e.g. governance arrangements; Corporate and Social Responsibility principles; managing and monitoring to identified targets and limits for integrated social, environmental and economic sustainability etc).	communities	
	Include in-depth case studies of exemplary practice in sensitive, sustainable tourism, visitation and other human uses of natural and protected areas; plus examples of how and why things go wrong.		
Applied conservation	on management skills		
Best practice	Field visits that provide an opportunity to see what others are doing and have interactive discussions with peers in	All audiences identify value	Middle managers; future leaders; rangers
Case studies of good to exemplary practice based on field visits	other locations.	of this	
Preparing for climate change	Strategic; Preparing for climate change and its implications (understanding implications on a broad level for senior staff) – includes sourcing robust data to inform preparation and adaptation (integrates with course on understanding science) e.g. 3-day intensive	All	Level 3-4
Specific practical management skills	Need for informal training and sharing of tacit knowledge especially within government agencies	International Ranger Fed- eration; both	Level 1-2
A package of short courses on specific skills for different target au- diences/locations (e.g. rangers – international, indigenous Australian)	An example is 'skills days', which are an approach for utilizing tacit knowledge through peer-based informal training days (not accredited); staff have opportunity to ask questions; outcomes include teamwork and safety.	Indigenous and non-In- digenous au- diences and across range of tenures	
includes fire and pest     management	Training workshops that are less formal, cross-generational and include participants with varying levels of experience	or tonures	



experience

Dr Rosalie Chapple (far left) with UNSW Sydney Masters of Environmental Management students studying protected area management in the Blue Mountains

# Table 2. Proposed new training programs based on needs analysis.

Note: separate tables are for different target audiences and programs.

#### A. Target audience - Australian government protected area agencies

Three key topics from Table 1 are proposed to pilot a 12-month training package of three short courses for a range of staff levels in agencies, with the following elements:

- Agencies co-invest in development (assuming common set of short courses) and each agency pays for delivery for their staff.
- Courses can be delivered for each state in turn, or as a joint course for two or several states depending on participant numbers.
- Delivery of the series of 3 courses over a 12-18 month period.
- Proposal to include facilitating national forums and webinars to encourage cross-fertilisation between state agencies.

Personnel level	Content	Delivery format	Delivery partners
New recruits, technical workers, field officers & rangers	The how, why and what of protected areas: their management and values; basic knowledge in biodiversity conservation; understanding ecological integrity & its maintenance; interconnectedness of cultural, social and ecological values.	Primarily in-class and some online 2-3 day intensive	PALRC university & NGO partners (explore development of existing courses)
Rangers, field officers & middle-senior managers	Understanding trends, informing policy and operationalizing management based on evidence; preparing people to contribute to jurisdiction-wide public policy development.  Optional content includes:  (a) Learning & applying the Open Standards (OS) adaptive mgmt. framework — helps teams be systematic about planning, implementing, & monitoring conservation initiatives to learn what works, what doesn't, & why - & ultimately adapt and improve efforts.  (b) Understanding how to use scientific data for management, working with scientists, & skills in basic monitoring for ecological integrity; how science is carried out in practice; differences between good science & poor, ethics, graphical representation of & interpreting data, research design & basic statistical methods that can be used to summarise, analyse & interpret scientific data.	In-class & in-field; Option of blended learning (online OS modules with field intensives)  (a) 2-5 days including 0.5-1 day in field  (b) 2-3 days (includes 1 day in field)	(a) Open Standards trainers  (b) Adapt from existing courses identified in database
	New recruits, technical workers, field officers & rangers  Rangers, field officers & middle-senior	New recruits, technical workers, field officers & rangers  Rangers is leid officers & rangers  Rangers, field officers & middle-senior managers  Rangers is leid officers & middle-senior managers  Rangers, field officers & middle-senior management based on evidence; preparing people to contribute to jurisdiction-wide public policy development.  Optional content includes:  (a) Learning & applying the Open Standards (OS) adaptive mgmt. framework – helps teams be systematic about planning, implementing, & monitoring conservation initiatives to learn what works, what doesn't, & why - & ultimately adapt and improve efforts.  (b) Understanding how to use scientific data for management, working with scientists, & skills in basic monitoring for ecological integrity; how science is carried out in practice; differences between good science & poor, ethics, graphical representation of & interpreting data, research design & basic statistical methods that can be used to summarise, analyse &	New recruits, technical workers, field officers & rangers  Rangers, field officers & rangers  Rangers, field officers & management and ecological integrity & its maintenance; interconnectedness of cultural, social and ecological values.  Rangers, field officers & middle-senior managers  Understanding trends, informing policy and operationalizing management based on evidence; preparing people to contribute to jurisdiction-wide public policy development.  Understanding trends, informing policy and operationalizing management based on evidence; preparing people to contribute to jurisdiction-wide public policy development.  Optional content includes:  (a) Learning & applying the Open Standards (OS) adaptive mgmt. framework – helps teams be systematic about planning, implementing, & monitoring conservation initiatives to learn what works, what doesn't, & why - & ultimately adapt and improve efforts.  (b) Understanding how to use scientific data for management, working with scientists, & skills in basic monitoring for ecological integrity; how science is carried out in practice; differences between good science & poor, ethics, graphical representation of & interpreting data, research design & basic statistical methods that can be used to summarise, analyse &

Navigating complexity	Senior Manager to Executive	Problem-solving for complex conservation challenges in multi-stakeholder environments.	In-class	Independent consultants/ facilita- tors to be contracted
		Focus to be designed for agency needs e.g. could include:	2-5 days intensive	
		- focus on making decisions & policy in areas of uncertainty - theory & case studies in scientific research & policy development; partnerships between researchers & policy-makers.		
		- systems thinking		

- appreciating and working with paradox



Participants in inaugural 2015 short course in Open Standards / Healthy Country Planning and Adaptive Management for Protected Areas, co-hosted by Conservation Management, the University of Tasmania, and the Tasmanian Land Conservancy (PALRC has awarded scholarships for this course over a number of years)



In November 2018, PALRC supported six scholarship recipients to travel to the Blue Mountains World Heritage Institute (BMWHI) in Katoomba, NSW to undertake the Adaptive Management for Protected Areas Conservation in the Asia-Pacific course.

Pictured left to right: Zin Lin Tun (Myanmar), Niraj Kakati (India), Furwoko Nazor (Indonesia), Doug Humann (PALRC Development Director), Phuntso (Bhutan), James Overall (Australia), Abir Man Sinchuri (Bhutan)

# C. Target audience – Private land conservation organisations

Private land organisations have expressed interest in a range of new short courses for staff and volunteers. Topics of interest are outlined below.

Topic	Personnel level	Aims & content	Delivery format	<b>Delivery partners</b>
Protected Area Essentials	Applicable for staff and volunteers at a range of levels.	The how, why and what of protected areas, their management and values; basic knowledge in biodiversity conservation; understanding ecological integrity & how to maintain it.	Primarily in-class and some online.  Duration: 2-3 day intensive	PALRC university & NGO partners (explore development of existing courses) and supporting private land organisation
Suite of short courses such as: Human factors; Open Standards; Cross-cultural awareness; Master class- es; Cultural heritage mgmt.	Applicable for staff and volunteers at a range of levels.	As identified in Table 1.	Blended training (online plus in-field)	PALRC with supporting private land organisation



Students participating in the University of Tasmania's Masters of Protected Area Governance and Management Credit: Graeme Worboys

## D. Target audience – Indigenous Protected Areas / Rangers

A proposal for delivery of a package of short courses with national reach and including co-design for several locations (north, south, east west, center) for ongoing annual delivery.

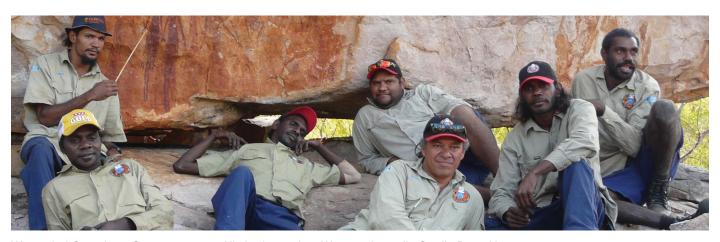
Course content to be location specific, not generic, and include field sessions.

Low cost; seek sponsorship and support from local business and/or corporate players as well as seek discounts for local services.

Include ranger exchanges and aspects of best practice management that feature in each location, e.g. joint management; managing risks, introduced species, and visitation.

Topic	Personnel level	Aims & content	Delivery format	Funding	Potential delivery partners
A range of topics from Table 1.	All	To develop a suite of courses with national reach as part of a training package offered in several locations (e.g. north, south, east, west, centre) and adapted as needed for the local contexts.	Local delivery, field-based intensives - similar format across locations but content is location-specific rather than generic.  Building the alumni and peer network post-course will include follow-up webinars with course conveners to 1) help consolidate the learning & 2) establish a peer network that enables members to self-convene their network in the longer term.	Explore co-investment across loca- tions with a joint bid to the Federal Govt (PMC Capac- ity Building Program), plus other government agencies and grants and philanthropy.	Locally based presenters with field and practical experience  PALRC university partners  Wet Tropics Management Authority  UNE (potential venue for eastern seaboard offering)  Notre Dame University Broome  TAFE Armidale (Cultural tourism course)  Aboriginal Land Councils
Adaptive manage- ment including Open Stan- dards	Rangers, field officers & mid- dle-senior managers		5-day intensive.		tbc

Cross- cultural 2-way learning	All	Explore multi-year package of training – can integrate with other program proposals	Central Australia		Continue discussions with Seven Generations International Founda- tion Australia http://7genfoundation. org/
Series of short courses in cultural & natural resource mgmt. (CNRM) for Indigenous communities³		PALRC to help prog- ress development of new short courses with ANDU & Kim- berley Land Council, as per their recent review of training needs in CNRM			Kimberley Land Council: Australian Notre Dame University (ANDU), Broome campus; Charles Darwin University (CDU).
Proposal by the Indigenous Desert Alliance (IDA) for an Indigenous Land Management Field School, Matuwa Indigenous Protected Area	For university graduates and aspiring protected area managers	An annual 10-day field-based introduction to Indigenous land management in order to attract, identify & support potential recruits to work effectively with ranger teams in the desert.  Long-term outcomes:  - Support Indigenous land management programs to identify, attract and retain high-quality staff and to enable them to focus on growing and developing their programs  - Build the long-term sustainability of the Indigenous land management sector through career development pathways & better talent identification, support and retention strategies  - Reduce recruitment costs & staff failure rates for Indigenous land management programs	Course designed by the IDA team in partnership with IDA members (ranger groups) and will be delivered in collaboration with senior rangers from the Matuwa Kurrara Kurrara Indigenous Protected through their regional cross-cultural learning hub.	The IDA is seeking investment to leverage other funding from current partners to make this field school an annual event and a crucial avenue to attract, retain and develop field-ready staff that can support the Indigenous land management sector to grow and develop.	IDA Indigenous Land Management Field School  Partner with key universities (Murdoch, CDU, CSU etc) to attract quality final year candidates & to inform them of the opportunity. Advertise the opportunity through TAFEs, environmentally focused organisations and other related fields in-order to attract good quality candidates from a broad spectrum of fields.



Wunambal Gaambera Country rangers, Kimberley region, Western Australia Credit: Doug Humann

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Горіс	Personnel level	Aims & content	Delivery format	Potential funding	Potential delivery partners
Adaptive manage-ment.	Rangers & middle to senior managers	Learning & applying the Open Standards (OS) adaptive mgmt. framework – helps teams be systematic about planning, implementing, & monitoring conservation initiatives to learn what works, what doesn't, & why - & ultimately adapt and improve efforts.	5-day intensive in Fiji	BIOPAMA	USP, IUCN-Oceania, BIOPAMA, PNG-CEPA, SPREP  Explore whether the workshop can be a springboard for the re- vamped PICCC (below) as a component of that wider training program.
Paciic Island Community Adaptive Co-mgmt course (PICCC)	Middle-se- nior manag- ers	To build and improve the capacity of conservation practitioners, community representatives, government technical officers, NGO technical officers and training personnel in the management of community-based conservation projects and sites for the sustainable conservation and management of natural resources.  To provide core skills and develop critical thinking for achieving widespread NRM & sustainable community livelihoods in Pacific island countries drawing particularly on successful regional experience and skills.  The course would draw upon many of the topics in Table 1.  The course aims specifically to:  Develop personal professional skills and strengthen the confidence to apply them  Develop and practice community participation and planning skills  Develop understanding of the wider governance context affecting or supporting community livelihoods  Develop critical thinking and strategic planning capacity  Understand basic NRM, conservation, adaptation, disaster risk reduction & supplementary livelihood tool.	Delivered 4x between 2001 & 2015. Some delivery issues reflect those identified in this report, & are being ad- dressed so the program can be offered annual- ly with ongoing viability.  Delivery period is several months, with in-person train- ing followed by fieldwork then in-person reflection.	Funding needed for curriculum/content development.  Funding options to explroe include:  - BIOPAMA  - Colombo Mobility Plan	USP, IUCN, SPREP, BIC PAMA, LMMA (Locally Managed Marine Area Network)

New short courses that articulate with new University of South Pacific (USP) course		Contribute to new "Islands and Ocean Stewardship" post-graduate course at USP		Colombo Mobil- ity plan options to be explored with PALRC university part- ners	To be further discussed with University of South Pacific (USP)
Range of short courses includ- ing soft-skills, leadership, mentoring - PNG CEPA <sup>4</sup>	Rangers primarily plus man- agers & other tbd	Key recommendations of a 2018 report by Peterson et al.4 on competence assessment for Protected Area Management in Papua New Guinea include:  1. Establish and effectively fund a network of rangers across PNG and incorporate relevant capacity building and training to enhance their abilities to improve the management effectiveness of protected areas.  2. Build the field capacity rangers (e.g. biodiversity, law enforcement, awareness raising, communication and collaboration etc).  3. Prioritise the capacity building and training activities to be undertaken both over the long and short-term.	to be determined	Options to explore:  Bilateral relationship between the Australian Department of the Environment and the PNG CEPA & Parks Australia  United Nations Development Program (UNDP)  Global Environment Fund (GEF)	PNG's Conservation and Environment Protection Authority (CEPA).  Workshop early 2019 in PNG to explore a program for delivery of ranger training with local RTOs and institutions for conservation and protected area agencies in PNG (and likely throughout the Pacific).
Pacific Islands Protected Area Portal (PIPAP)		Contribute to a community of practice and peer network and provide input to the portal with information on training, scholarships, exchanges, secondments, etc.			South Pacific Regional Environment Program (SPREP)





James Sabi (PNG) attended the Adaptive Management for Protected Areas Conservation in the Asia-Pacific course (2018) at the Blue Mountains World Heritage Institute At Rabaul Observatory, Benside Thomas (right) Papua New Guinea Conservation and Environment Protection Authority's Manager of Terrestrial Protected Areas. Joe Ringo (middle) Local Level Government Manager for West Pomio Mamusi. Peter Kikele (left) Charman - Tavolo Wildlife Management Committee)

Papua New Guinea Conservation and Environment Protection Authority's Ranger Workshop, Varirata National Park 2018. Credit: Mat Wolnicki

#### F. Target audience - International Ranger Federation (IRF)

Discussions with the International Ranger Federation (IRF) have highlighted the value of new short courses in partnership with PALRC and potentially with the IUCN-WCPA, focusing on specific skills.

Topic	Personnel level	Aims & content	Delivery format	Funding	Potential delivery partners
Specific practical skills such as fire & feral animal manage- ment.	Rangers & field officers	Proposal with IRF Asia to pilot new short courses in conjunc- tion with the World Ranger Congress in Nepal November 2019.	Pre- and post- Congress workshops		IRF Asia  Trainers would likely include Australia ex-Parks staff with the requisite skills.  Potential for IUCN-WCPA involvement.

G. Online modules								
Topic	Personnel level	Aims & content	Delivery format	Delivery partners				
Practical ranger training skills	Levels 1, 2 & 3 (Skilled work- ers/Rangers, Middle manag- ers/Technical specialists, Senior manag- ers)	Collaborate with new e-learning platforms	May include field- based training to support e-learning	Examples include:  Ranger Academy in east Africa (ranger-campus.org/rangeracademy/)  National Geographic/Zoological Society of London (Professionalizing Conservation training initiative)				
Open Standards online	Levels 1, 2 & 3 (Skilled work- ers/Rangers/ Field officers, Middle manag- ers/Technical specialists, Senior manag- ers)	To develop online Open Standards training modules for the Oceania region	Online (for blended learning)	Explore options for PALRC collaboration with the new online modules developed by Foundations of Success (FOS) with the University of Wisconsin-Madison				

- 1 NAILSMA. 2018. Our Knowledge Our Way Guidelines http://www.nespnorthern.edu.au/wp-content/uploads/2018/08/Our-Knowledge-Our-Way-Call-for-case-studies.pdf
- 2 https://www.iucn.org/theme/world-heritage/our-work/world-heritage-projects/world-heritage-leadership
- 3 see Clements, J., Kennedy, G., Marshall, M. and Killane, S. 2015. Feasibility Study Into a Cultural Natural Resource Manage ment (CNRM) Qualification for Northern Australia. Nulungu Research Institute. Funded by Regional Development Australia (RDA) Kimberley. https://www.notredame.edu.au/\_\_data/assets/pdf\_file/0018/2394/04.-CNRM-Final.pdf
- 4 Peterson, A., Peterson, G., and Leverington, F. 2018. Competence Assessment for Protected Area Management in Papua New Guinea. Part 7: Senior rangers and Rangers. Report to UNDP and CEPA, Port Moresby