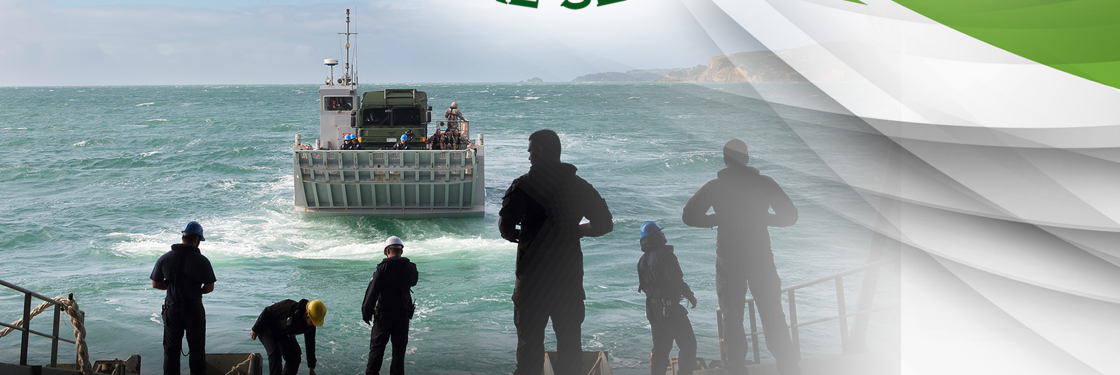


# PACIFIC ENVIRONMENTAL SECURITY FORUM

21-24 MAY 2019 | WELLINGTON, NEW ZEALAND

SUPPORTED BY THE NEW ZEALAND MINISTRY OF FOREIGN AFFAIRS,  
NEW ZEALAND MINISTRY OF DEFENCE, NEW ZEALAND DEFENCE FORCE,  
AND THE U.S. INDO-PACIFIC COMMAND



▲ A LANDING CRAFT FROM THE HMNZS CANTERBURY FEATURED IN 'STRATEGIC DEFENCE POLICY STATEMENT 2018'

NH90 FEATURED IN 'THE CLIMATE CRISIS: DEFENCE READINESS AND RESPONSIBILITIES' ▲

# 2019 Pacific Environmental Security Forum After Action Report

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2019 Pacific Environmental Security Forum After Action Report



# 2019 Pacific Environmental Security Forum After Action Report

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## **ACKNOWLEDGEMENTS**

1. Mr. Christopher Sholes, Environmental Program Manager, USINDOPACOM J445
2. Mr. John Anakotta, Senior Policy Officer, Ministry of Foreign Affairs & Trade, New Zealand
3. Ms. Jane Neilson, Senior Policy Analyst (Climate Change), Ministry of Defence, New Zealand
4. Mr. Adam Linnell, Senior Policy Officer, Ministry of Foreign Affairs & Trade, New Zealand
5. COL Mike Goodyer, Senior Environmental Planner, Headquarters, Joint Operation Command, Australia
6. Col Mike Matheis, Joint Engineer, USINDOPACOM J44
7. LTC Andy Sinelli, Engineer, USINDOPACOM J44
8. Lt Col Melvin Ibarreta, Engineer, USINDOPACOM J44
9. MAJ Travis Collins, Environmental Planner, Headquarters, Joint Operation Command, Australia
10. Maj Andy Lake, Chief, Office of Defense Cooperation, U.S. Embassy - Wellington
11. MAJ Jim Servi, Engineer, USINDOPACOM J44
12. Maj Kyle Slick, Engineer, USINDOPACOM J44
13. Capt Julie Mages, Engineer, USINDOPACOM J44
14. PO1 Katherine Huston, USINDOPACOM J44
15. Ms. Sarah Quinzio, Political-Military Officer, U.S. Embassy Wellington
16. Mr. Justin Pummell, Geographer, U.S. Army Corps of Engineers

## FORWARD

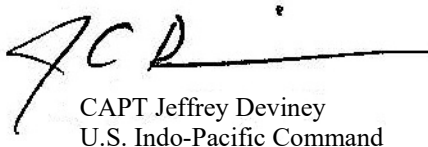
On behalf of the U.S. Indo-Pacific Command (USINDOPACOM), thank you for your tremendous contributions to the 2019 Pacific Environmental Security Forum (PESF) held in Wellington, New Zealand 21-24 May. The 2019 event set a new standard for environmental security cooperation, and I am excited to be a part of the Pacific Environmental Security Partnership (PESP) moving forward.

In company with the New Zealand Ministry of Foreign Affairs & Trade (MFAT) and the New Zealand Ministry of Defence (MOD), the PESF was able to achieve its objectives of increasing awareness of environmental security issues, maintaining a network of capable partners, advancing partner capacity, and identifying new opportunities to mitigate environmental security concerns.

The PESF planning team has compiled the 2019 results within this After-Action Report. The results are also available at <http://pesforum.org>. Please explore and download the documents at your convenience, and do not hesitate to contact USINDOPACOM if you have additional questions.

To conclude, USINDOPACOM will continue to advance environmental security understanding and readiness throughout the Indo-Pacific region. USINDOPACOM supports the new PESP concept, and will engage in its further development as we collectively plan for the 2020 event to be hosted by the Philippines.

Thank you again for your numerous contributions to the 2019 PESF, and I urge you to consider becoming an official PESP partner as soon as possible. Best wishes!



CAPT Jeffrey Deviney  
U.S. Indo-Pacific Command

# 2019 Pacific Environmental Security Forum After Action Report

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## **EXECUTIVE SUMMARY**

### **DISCUSSION**

The ninth annual PESF met 21-24 May 2019, with over 160 participants attending from more than 40 countries and organizations. The PESF commenced with senior leadership from New Zealand and the United States providing strategic guidance. The Minister of Defence, the Honorable Ron Mark, delivered an impassioned speech calling PESF participants to act on climate change. Minister Mark identified environmental security as a civilian and military responsibility that all countries should prioritize. Next spoke the Honorable Scott Brown, the U.S. Ambassador to New Zealand. He highlighted environmental security work already underway by the United States, and emphasized that public-private partnership can aid in the process.

Day 1 transitioned into subject-matter expert presentations focused on climate change adaptation, climate security policy, disaster response, and climate migration delivered by representatives from New Zealand and Tonga. In the afternoon, USINDOPACOM introduced the Pacific Environmental Security Partnership (PESP) concept. USINDOPACOM explained the new, non-binding, interagency, cooperative opportunity focused on topics and projects organized into working groups: Education, Mitigation, Networking and Policy. Participants then could choose to attend four of 16 concurrent presentations on subjects related to the proposed PESP working groups. That evening, New Zealand hosted a reception at Parliament led by the Deputy Prime Minister and Minister of Foreign Affairs Winston Peters who reflected on the strong bilateral relationship and civilian-military



partnership in the PESF. Participants received a traditional Māori welcome, and socialized among themselves and the hosts.

The PESF second day featured topics on environmental security and resource sustainability: maritime security, biosecurity, maritime domain awareness, and invasive species eradication. Presentations highlighted best practices and lessons-learned in New Zealand, and throughout the Pacific region. In the afternoon, participants learned about traditional Māori environmental security practices, then toured New Zealand's national museum, Te Papa Tongarewa.

Australia organized PESF Day 3, Multilateral Approaches to Environmental Security. Presenters were the Pacific Islands Forum (PIF), Institute for Defence Studies and Analyzes, Secretariat of the Pacific Regional Environment Programme (SPREP), and the United Nations Environment Programme (UNEP). Each speaker delivered examples on how partnership enhances environmental security cooperation and mitigation. In the afternoon, participants completed an interactive exercise to generate a weighted multi-criteria environmental security index. After answering questions related to the military, environment, economy, social well-being, and political situation, the results were mapped in a Geographic Information System (GIS).

The final PESF day focused on environmental security transformation. USINDOPACOM and the Australia Defence Force (ADF) presented the draft PESP Terms of Reference (TOR) document. Participants then provided feedback on the TOR, for future versions. Next, each country prepared at least one environmental security project idea for consideration. The project ideas are reviewed by the PESP in the

future, and several will have the opportunity for funding through USINDOPACOM's various security cooperation programs.

To conclude, participants reviewed the PESF After-Action Review (AAR) results, prior to the closing ceremony in which Rear Admiral John Adametz, U.S. Navy, encouraged participants to return to their country and take action on environmental security initiatives. He also welcomed countries to submit a PESP endorsement letter as soon as possible. New Zealand's Climate Change Ambassador, the Honorable Kay Harrison, officially closed the PESF. She also called participants to action, and emphasized New Zealand's continued support to climate change mitigation and environmental security initiatives.

### WAY FORWARD

USINDOPACOM, supported by New Zealand and Australia, will continue to work towards PESP transformation. USINDOPACOM will establish the PESP Administrative Body (AB), and review initial PESP endorsement letters. The AB will also work with PESP partners to find initial Work Group leaders for Education, Mitigation, Networking and Policy. Once identified, the PESP will formalize the Planning Team (PT) for 2020.

In August 2019, USINDOPACOM will conduct the 2020 PESF Initial Site Survey (ISS) in Manila and Cebu, Philippines. ISS attendees will review the project list submitted at the 2019 PESF, as well as any additional PESP endorsement letters submitted by partner nations. The ISS will also commence 2020 planning, and the AB and HN the sign a Memorandum of Agreement (MoA) to confirm PESF roles and responsibilities.

AB regional project managers will contact project POCs to gather more information, prioritize lists, and prepare initial project submission into the Overseas Humanitarian Assistance Shared Information System (OHASIS) website.

USINDOPACOM will continue to coordinate with New Zealand MOD, New Zealand MFAT, Australia Defence Force (ADF), Australia Department of Foreign Affairs & Trade (DFAT) and others to coordinate on regional environmental security matters.

New Zealand's MFAT and MOD will edit the PESP Terms of Reference document to incorporate suggested changes the 2019 PESP plenary submitted. The PESP partners will then consider and approve a new DRAFT. The AB will also update the PESP external web site (<http://pesforum.org>) with 2019 PESP documentation, and load final 2019 planning documents to the PESP portal on APAN (<http://www.apan.org>).

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## **AFTER-ACTION REVIEW**

1. EVENT DATES: 21-24 May 2019
2. EVENT LOCATION: Harbourside Function Venue, Wellington, New Zealand
3. BACKGROUND: Environmental security is broadly defined as countering vulnerabilities caused by the abundance or scarcity of environmental resources and/or degradation. New Zealand is working with USINDOPACOM to evolve this definition based on discussion at the 2019 PESF. Increasingly, environmental factors—extreme and frequent weather and climate events, water resources, food security and environmental disasters—can affect national and regional security by exacerbating hunger, poverty, instability and conflict. Environmental factors often have cross-border impacts. Sharing lessons-learned and encouraging militaries and governments to plan, operate, and execute in an environmentally sustainable manner that supports regional cooperation will improve security for all.

The PESF is the cornerstone of USINDOPACOM’s Environmental Security Program, which seeks to 1) increase understanding of environmental stewardship obligations among militaries in the Indo-Pacific region; and 2) lead a multilateral civil-military organization focused on mitigating environmental security threats, advancing collaborative partnerships, sharing information and resources, and developing strategy that advances the Indo-Pacific region.

The PESF is currently undergoing a transformation from an event-centric initiative to a non-binding, multilateral partnership called the Pacific Environmental Security Partnership (PESP). The PESP is designed to be a sustainable mechanism for future cooperative environmental security in the Indo-Pacific region. PESP transformation will take time, and its path will be shaped by PESF activities.

The PESF will remain an annual event, PESP's keystone activity, where civilian and military partners can gather to discuss and share environmental security best practices and lessons-learned. The PESF will also continue as a platform to service a community of action focused on prioritizing regional environmental security projects that couple unique civil and military capability and expertise, deliver tangible and efficient results, and advance security in the region.

Environmental security projects and cooperation are platforms for building relationships and opening doors for dialogue on other subjects. Ultimately, USINDOPACOM is dedicated to promoting environmental security awareness and sustainable environmental operations, and will continue to collaborate with civilian and military agencies in order to achieve environmental security objectives.

The 2019 forum is the ninth annual event. The event has been previously held in Hawaii (2011), Indonesia (2012), Australia (2013), Maldives (2014), Thailand (2015), Fiji (2016), Alaska (2017), and Mongolia (2018). On odd number years, the event involves all of the Indo-Pacific. In even numbered years, the event has been regional. The 2019 event was the official announcement of the new PESP construct, and will transform future PESF events into a more collaborative design.

4. MISSION: To execute the PESF in partnership with New Zealand MFAT, MOD and NZDF.

5. PURPOSE: To advance environmental security in the Indo-Pacific region, while sharing environmental best practices and lessons learned, shaping bilateral and multilateral cooperation, identifying future environmental security projects, and transforming the PESF to a more formal regional partnership.

6. VISION: To systematically characterize environmental security threats, and take collective action towards sustainable solutions.

7. OBJECTIVES: The following objectives were set for the 2019 PESF:

- To increase awareness of environmental security issues, best practices and lessons-learned in the Pacific region;
- To maintain a network of civil-military environmental security partners;
- To educate and advance partner capacity;
- To contribute to Pacific regional environmental security strategies; and
- To mitigate environmental security threats and vulnerabilities.

8. POINT OF CONTACT:

- Christopher Sholes, Environmental Program Manager, J445, USINDOPACOM, [christopher.sholes@pacom.mil](mailto:christopher.sholes@pacom.mil) or +1 (808) 477-9420.



9. PARTICIPANTS: A list of PESF participants follows:

AUSTRALIA

1. AIRCDRE Kirrily Dearing
2. COL Mike Goodyer
3. MAJ Travis Collins
4. CAPT Christine Clarke, CSC, RAN
5. Mr Nick Covey
6. Mr Russell Rollason
7. Ms Emi Tagi

BANGLADESH

1. Mr MJH Jabed
2. CDR Mohammad Shafiqul Islam

CAMBODIA

1. H.E. Mr Thay Chantha

CANADA

1. Mr Nicolas Sabourin
2. CDR Ted Summers

CHILE

1. CAPT Andres Fernandez Biggs

CHINA

1. Col Xiangyu Long

COOK ISLANDS

1. Ms Valentino Wichman
2. Ms Karo Ngatoko

FIJI

1. Mr Ilai Moceica
2. COL Onisivoro Covunisaqa
3. COL Litea Seruiratu

FRANCE

1. H. E. Mrs Sylvaine Carta-Le Vert
2. Mr Rodolphe Sambou
3. Mr Nicolas Regaud

FRENCH POLYNESIA

1. Dr Mareva Lechat-Kitalong
2. Mr Manuel Terai

INDONESIA

1. Col Nefra Firdaus
2. Maj Antonius Boyke

3. Mr Indrawan Thuchid
4. Mr Rasio Ridho Sani
5. Ms Vinda Damayanti Ansjar

### JAPAN

1. CAPT Shinsuke Amano
2. Mr Yoji Iishi
3. Mr Katsuhide Ariyoshi

### KIRIBATI

1. Mr Michael Foon
2. Mr Timon Uatioa

### MALAYSIA

1. BG Muhammad Huzaimi
2. Mr Nazrul Zarifi Mohd Nazri

### MALDIVES

1. Col Mohamed Shahid
2. Lt Col Hussain Ali
3. Mr Mohamed Hamdhaan Zuhair

### MONGOLIA

1. Ms OYUNGEREL Gombo
2. LTC SODNOMTSOG Davaa

NAURU

1. Ms Letha Herman

NEPAL

1. Col Ram K.C.

NEW ZEALAND

A. Department of Conservation

1. Mr Stephen Horn
2. Ms Sarah Hucker
3. Ms Andrea Stewart

B. Department of the Prime Minister and Cabinet

1. Ms Emily McCarthy
2. Mr Finbar Kiddle

C. Ministry of Defence

1. H.E. Ron Mark
2. Ms Jane Neilson
3. Mr Justin Allan
4. Ms Alexandra Pierard
5. Ms Kristin Chambers
6. Mr Jonathan Brumley

7. Ms Lily Wooles
8. Ms Donelle Rota
9. Ms Mine Auelua
10. Mr Joe Mansell

D. Ministry for the Environment

1. Ms Melanie Mark-Shadbolt

E. Ministry of Foreign Affairs & Trade

1. H. E. Winston Peters
2. H. E. Kay Harrison
3. Ms Charlotte Darlow
4. Mr Nathan Ross
5. Mr John Anakotta
6. Mr Adam Linnell
7. Ms Kate Swan
8. Ms Nicolasa Fuller
9. Mr Ross Ardern
10. Ms Chris Day

F. Ministry of Primary Industries

1. Dr Eve Pleydell

G. New Zealand Defence Force

1. RADM David Proctor
2. CAPT Shaun Fogarty

3. WGCDR Mike Going
4. LTCOL Aaron Wright
5. LTCOL Magnus Latta
6. LTCDR Matt Ruglys
7. LTCDR Matt Williams
8. MAJ Robert Te Moana
9. LT RNZN Simon Aimer
10. FLTLT Matt Lemmens
11. LT Caitlin Wiseman
12. LT Maddy Winn
13. LT Col Jacob Murray
14. Ms Alyson Douglas
15. Mr Al Walker
16. Mr Liam Powell
17. Ms Kate Murphy
18. Mr Bill Webb, GNZ
19. Mr Adam Skrzynski
20. Mr James Leask
21. Dr Jamie Latornell

#### H. Others

1. RADM (R) John Martin
2. Dr Lance Beath
3. Dr James Renwick
4. Ms Hannah Prior
5. Ms Piata Hohaia
6. Mr Danny Kivi

PAPUA NEW GUINEA

1. Maj Bui Craig Mana
2. Mr Benny Sandeka
3. Mr Gary Kiki

PHILIPPINES

1. Mr Roberto Manalo
2. Col Noel Vestuir PA
3. CG/CDR Lazaro Ernesto C Valdez

SOLOMON ISLANDS

1. Mr Joe Horokou

SRI LANKA

1. CAPT Duminda Samarawickrama
2. MKD Priyankara
3. MPDUK Mapa Pathirana

THAILAND

1. Dr. Qwanruedee Chotichanathawewon
2. COL Borworn Wongsengchantra
3. COL Sombat Phongsri

TIMOR-LESTE

1. H.E. Cristiano da Costa
2. Mr Armindo Pedro Simones
3. Lt Col Domingos da Costa Soares

TOKELAU

1. Mr Mikaele Fatia

TONGA

1. Mr Leonaitasi KULUNI
2. Ms Mele Masi
3. Maj Soane ‘Aholelei

TUVALU

1. Mr Soseala Tinilau
2. Mr Luka Falefou

UNITED STATES

1. H.E. Scott Brown
2. H.E. Susan Niblock
3. RDML John Adametz
4. Dr John Wood
5. CAPT Jeff Deviney
6. Col Mike Matheis
7. CAPT Barry Choy



8. Mr Chris Sholes
9. Lt Col Mel Ibarreta
10. LTC Andrew Sinelli
11. Lt Col Chad Gemeinhardt
12. Maj Andrew Lake
13. Maj Jim Servi
14. Maj Kyle Slick
15. Capt Julie Mages
16. LT Jason McGee
17. YN1 Katherine Huston
18. Ms Ebony Tran
19. Dr Christopher W. Merritt
20. Mr Sanjeev Pandey
21. Ms Sarah Quinzio
22. Mr Ted Danowitz
23. Dr Kurt Preston
24. Mr Jared Batzel
25. Mr Justin Pummell

#### VANUATU

1. Mr Armstrong Sam

#### VIET NAM

1. Mr Le Ngoc Tuan
2. LT Linh Nam Dieu

## OTHERS

1. Ms Shiloh Fetzek, Center for Climate and Security
2. Mr Stephen Harris, Commonwealth Clean Oceans Alliance
3. Dr Uttam Sinha, Institute for Defence Studies and Analysis
4. Ms Sylvie Goyet, Pacific Community
5. Mr Terry Koronawa, Pacific Islands Forum
6. Mr Allan Rahari, Pacific Islands Forum Fisheries Agency
7. Mr Roger Cornforth, Secretariat of the Pacific Regional Environment Programme
8. Dr George Woodman, Teng Hoi Conservation Organization
9. Dr Lisa Guppy, United Nations Environment Programme

10. DAILY SUMMARY: The details found in the section below summarize the PESF's daily activities. They were recorded on the day, and reflect the current status at the time.

### 21 MAY 2019

The PESF opened with keynote speeches from New Zealand's Minister of Defence and the U.S. Ambassador to New Zealand. Minister Mark emphasized the importance of defense involvement to support climate change security. He also encouraged participants to learn from indigenous examples from the past and present to aid in future climate change adaptation decisions. Ambassador Brown highlighted multiple examples of how the U.S. is supporting environmental security around the globe, then shared local partnership examples between New Zealand and the United States.

Next, Victoria University introduced the *Climate Security Challenges in the Pacific* theme. Professor James Renwick highlighted the most recent climate science data and presented trends and forecasts for the Indo-Pacific region. Professor Renwick also highlighted what carbon dioxide levels could be if the world follows the Paris Accord Agreement, versus if the agreement is not followed. Next, other speakers presented plenary presentations on climate change adaptation and climate migration. First, Ms. Jane Neilson from New Zealand's Ministry of Defence explained her organization's December 2018 climate change and security Defence Assessment paper. She summarized the new document, which explores the implications of climate change on NZDF operations and explained that climate change is one of New Zealand's greatest security challenges, and New Zealand Defence is proactively working towards solutions, collaborating with civilian agencies, and learning from others.

The second plenary speaker was Major Soane 'Aholelei from the Tonga military. He presented on Tonga's response and recovery operations following Tropical Cyclone Gita and shared lessons learned from the category five event, as well as Tonga's disaster response capabilities and limitations.

The third plenary speaker was Mr. Nathan Ross from New Zealand's Ministry of Foreign Affairs & Trade. He shared his insight into climate migration concerns, including internal displacement and planned relocation. He also correlated risks associated with forced relocation in other settings, to those that may result from the impacts of climate change. Mr. Ross also

explained New Zealand's work program to investigate human mobility issues related to climate change, and offered some considerations for the future.

In the afternoon, the PESF shifted focus to the introduction of the *Pacific Environmental Security Partnership (PESP)* concept. First, Mr. Chris Sholes from USINDOPACOM provided an overview of the new PESP approach. He explained how the PESF has continually adapted each year since its origins in 2011, and now the program is ready for a differently organized and collaborative approach for the future. To accomplish this, USINDOPACOM, MFAT and the ADF prepared a draft PESP Terms of Reference to facilitate transformation. Col Mike Matheis (USINDOPACOM) followed Mr. Sholes, and explained the proposed PESP work group structure. Col Matheis said the new PESP initiative would include four work groups (Education, Mitigation, Networking and Policy) to support Partnership objectives.

To display possible topics under the new PESP work group structure, 16 briefs presented on Education, Mitigation, Networking and Policy themes. Under the Education sessions, the presentations were on environmental sensitivity indexing (Sri Lanka), maritime domain awareness (ASEAN), environmental intelligence (USA), and water security (Australia). In the Mitigation session, presentations related to oil spill response (Solomon Islands), wetlands management (Maldives), unexploded ordinance clearance (USA), and sustainable design were presented (USA). The Networking session featured presentations on information sharing (USA),

diversification (UK), security cooperation (Nepal), and enforcement (Indonesia). Finally, the Policy session discussed climate resiliency (USA), climate change (France), coastal management (New Zealand), and air pollution (Thailand).

The day concluded with New Zealand's MFAT hosting a reception at Parliament. The Deputy Prime Minister and Minister for Foreign Affairs, Honorable Winston Peters, delivered the primary remarks emphasizing the strength of the New Zealand-United States bilateral relationship and civilian-military partnership in the PESF.

#### 22 MAY 2019

Day 2 started with Mr. Justin Allan from New Zealand's National Maritime Coordination Centre introducing the *Environmental Security and Resource Sustainability* theme. Mr. Allan described New Zealand's expansive maritime responsibilities, how maritime responsibility is changing, and how New Zealand uses a multi-lateral approach to accomplish its mission.

Next, Rear Admiral David Proctor, Chief of the Royal Navy of New Zealand, presented on climate change, maritime security and resource protection. He stated that climate change requires action by all parties around the globe and emphasized that increases in extreme weather phenomena are likely the most obvious threat to the Pacific region, and militaries should be ready to support civilian authorities and work regionally to respond to humanitarian assistance requests.

Next Ms. Sylvie Goyet from the Pacific Community began her presentation by explaining maritime boundaries in the Pacific Ocean, and the complexities associated with shared boundaries. Ms. Goyet highlighted the Blue Pacific concept, and how member countries are working together to increase maritime domain awareness and resource protection in the Pacific region. Ms. Goyet used tuna and coral as examples of shared resources that are vulnerable to climate change and appropriate for collective protection.

Next, Dr. Eve Pleydell from New Zealand’s Ministry for Primary Industries spoke on biosecurity intelligence. She explained how biosecurity matters are managed within New Zealand, and shared information on a new strategic direction focused on “smart, free-flowing information,” and highlighted how this new biosecurity team will work to enhance New Zealand’s system with assessing and forecasting biosecurity threats to all sectors.

The final plenary speaker was Mr. Stephen Horn from New Zealand’s Department of Conservation who presented on the eradication of invasive species in New Zealand’s sub-Antarctic region. Mr. Horn explained how the Department of Conservation for over 30 years has worked to eradicate mammalian pests from Antipodes and Auckland islands as among others.

In the afternoon, Ms. Melanie Mark-Shadbolt from New Zealand’s Ministry of Environment delivered a presentation

entitled, “Lessons from the Past: What Can Traditional Environmental Knowledge Teach Us?,” She focused on indigenous environmental knowledge and showcased successful examples of environmental management from the Māori culture and stressed the importance of inclusion. She after her prepared comments took questions from the audience using the interactive Mentimeter tool.

To conclude Day 2, participants visited New Zealand’s national museum, *Te Papa Tongarewa*. Museum curators gave guided tours of environmental exhibits of New Zealand’s unique environment. Participants also learned more about the history of New Zealand’s defense forces.

### 23 MAY 2019

The PESF third day emphasized multilateral approaches to environmental security. Air Commodore Kurrily Dearing from Australia’s Joint Operations Command was the theme leader, and began. By highlighting the Boe Declaration. She then provided examples of how the Australia Defence Force is collaborating with various partners on environmental security projects.

After Air Commodore Dearing’s introduction, four speakers delivered presentations to the plenary. Mr. Terio Koronawa made the first from the Pacific Islands Forum Secretariat, who began by introducing the *Blue Pacific* narrative as the core driver for collective action in the Pacific Ocean region. He then emphasized the Boe Declaration, which focuses on the key

components of leadership and policy towards climate security. Finally, Mr. Koronawa shared the PIF perspective on environmental security multilateralism lessons-learned.

The second multilateral speaker was Mr. Roger Cornforth from the Secretariat of the Pacific Regional Environmental Programme (SPREP). He emphasized that the size of the Pacific region makes multilateral cooperation essential to migrating extant and potential environmental security threats. He shared ongoing environmental security initiatives related to marine pollution, WWII wreck monitoring, ocean observation, and resiliency.

Next, Dr. Uttam Sinha from India's Institute for Defence Studies and Analyses shared details about the Bangladesh-India Sundarban Regional Cooperation Initiative. Dr. Sinha explained the draft structure for the joint platform, and highlighted the initiative's focus on evidence-based advocacy, climate change awareness, and promoting mutual economic growth. Dr. Sinha concluded by listing some attributes of the joint ecological diplomacy resulting from the cooperative initiative.

The final plenary brief by Dr. Lisa addressed the UNEP's ongoing efforts to revolutionize environmental security preparedness in the Asia-Pacific region through synergized efforts to recognize risk, determine solutions, and work collaboratively to prevent escalating affects. Dr. Guppy is the United Nations Environmental Programme regional representative in Bangkok.



In the afternoon, all participants contributed to an interactive environmental security exercise. Using a web-based tool called “Mentimeter,” Mr. Justin Pummell from the U.S. Army Corps of Engineers led participants through an exercise designed to identify climate change effects, prioritize those effects regionally, and weigh impacted characteristics to identify regional similarities and differences. Participants first listed all global climate change effects they could. Next, participants divided into regional groups (ex. Oceania) to evaluate the climate-change effect list and prioritize. Following the prioritization process, countries within regions then responded to questions related to defense, environment, economy, social well-being, and politics. The results of this activity generated a weighted, multi-criteria analysis scorecard depicting commonality and differences between countries in the Indo-Pacific region. The results will be mapped in a Geographic Information System (GIS) tomorrow so participants can visualize the results. The PESP will use the results to understand better environmental security considerations of its collaborative partners.

#### 24 MAY 2019

Dr. John Wood (USINDOPACOM J9 Director) introduced The *Environmental Security Transformation* theme. Emphasizing the importance of transformation, and indicating that now was the time for the PESF to change to the PESP, Dr. Wood also spoke on how bringing broadband communications to the Pacific Island Nations would help assist with better maritime domain awareness and sharing information via fusion cells.

After Dr. Wood's introduction, Mr. Christopher Sholes took the stage to explain the draft PESP Terms of Reference document. Mr. Sholes explained how the Terms of Reference were prepared, starting with a Theory of Change exercise performed with the UNEP. Mr. Sholes then provided an overview of the basic format of the proposed non-binding partnership. He stated that the PESP would include four primary work groups focused on education, mitigation, networking and policy. Finally, he detailed how the future PESP communication and PESF operation is scheduled to work under the draft PESP concept.

Following Mr. Sholes, COL Mike Goodyer from Australia broke down the proposed PESP structure. COL Goodyer explained the differences between the PESP Administrative Body, Planning Team, and rotating Host Nation and provided insight into how countries can become partners, and the differences between partners and observers.

Next, participants divided into ten working groups to explore and provide feedback on the draft PESP Terms of Reference document. Participants used a common spreadsheet to track line-by-line edits, which the PESP Administrative Body will review in the future for potential inclusion in the document.

Upon conclusion of the PESP Terms of Reference review, participants reconvened briefly to discuss the next group activity. Mr. Christopher Sholes requested each country spend approximately 30 minutes with a French, New Zealand, Australia, or U.S. facilitator to share future environmental

security project ideas. Each country prioritized their project idealist, and prepared a standard slide to summarize proposals. Thirty-four (34) proposals were then briefed to the plenary. USINDOPACOM and others will utilize the list to submit for future security cooperation funding.

In the afternoon, Col Mike Matheis (USINDOPACOM) presented the results of the PESF After-Action Review survey. Col Matheis went through the final Mentimeter results. Participant feedback indicated that the 2019 PESF was successful in accomplishing its objectives. Participants liked the format and materials, and they are interested in endorsing the PESP and becoming partners in the future. PESF results also showed that event themes were relevant, and that this is strong interest in coming to collaborate and execute environmental security projects in the field.

Next, the Philippines presented on its plans to host the 2020 Southeast Asia Regional Environmental Security Forum (RESF). CDR Lazaro Ernesto Valdez Jr suggested the 2020 focus on the marine environment of Southeast Asia. CDR Valdez explained the current state of the marine environment, pollution sources, and opportunities for PESP engagement. CDR Valdez proposed daily RESF themes center on marine activism.

The PESF concluded with a formal closing ceremony. On behalf of USINDOPACOM, Rear Admiral John Adametz from Naval Facilities Engineering Command Pacific delivered the first statement. RADM Adametz thanked all participants for

attending. He emphasized the importance of environmental protection on military bases and beyond. Additionally, he encouraged all participants to go back to their home country and act on the opportunity to join the PESF.

Her Excellency Kay Harrison, New Zealand's Climate Change Ambassador, closed the PESF. She described New Zealand's actions already underway to work towards the Paris Agreement climate change goals. Ms. Harrison also called participants to action and encouraged participants to work for future generations and take environmental security into all actions worked.

# 2019 Pacific Environmental Security Forum After Action Report

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