

NORTHEAST ASIA REGIONAL ENVIRONMENTAL SECURITY FORUM



ULAANBAATAR, MONGOLIA
18-21 SEPTEMBER 2018

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NORTHEAST ASIA REGIONAL ENVIRONMENTAL SECURITY FORUM (RESF)
ULAANBAATAR, MONGOLIA 2018

Dear Forum Participant,

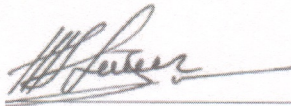
On behalf of the Ministry of Defense (MOD), Mongolia and the United States Indo-Pacific Command (USINDOPACOM), we welcome you to Ulaanbaatar, Mongolia and the 2018 Northeast Asia Regional Environmental Security Forum (RESF), which we are proud to be holding for the eighth consecutive year. Participants in the seven previous environmental security forums – in Honolulu, Jakarta, Sydney, Male, Bangkok, Nadi and Anchorage – were instrumental in developing environmental security projects across the region and have informed the evolution of USINDOPACOM's Environmental Security Program. The 2018 RESF will emphasize Establishing an Environmental Security Habit of Dialogue, the Food-Water-Energy Nexus, Environmental Security in Contingency Operations and Maintaining an Environmental Security Dialogue.

The RESF seeks to foster enduring relationships by assembling participants from Northeast Asia to address environmental security concerns through responsible civil and military action. It strives to address many concerns and to: 1) advance environmental management; 2) broaden civil-military environmental security cooperation in the Northeast Asia region; 3) strengthen environmental security coordination between and among USINDOPACOM and Northeast Asia partners; 4) increase awareness of environmental security issues, best practices and lessons-learned; and 5) enhance Mongolia's foundational environmental security capability. Importantly, the RESF also seeks to identify future environmental security initiatives which we can all put into practice.

We are honored that you have made your time available to attend and appreciate your participation over the next four days and beyond.

In our desire to conserve resources, the event agenda, information paper, speaker biographies, presentation summaries, workgroup exercise scenarios, and evaluation forms are all available electronically for download at <http://pesforum.org>. Please contact the event organizers if you have questions.

With our best wishes for a successful forum.

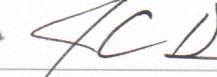


BADAMBAZAR Jambaa

Major General
Deputy Chief of the General Staff
of Mongolian Armed Forces

20 AUG 18

Date



J.C. DEVINEY

Captain, Civil Engineer Corps,
U.S. Navy
Chief, Engineering Division
U.S. Indo-Pacific Command

27 Aug 18

Date

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TABLE OF CONTENTS

INFORMATION PAPER.....	7
------------------------	---

DAY 1 – ESTABLISHING AN ENVIRONMENTAL SECURITY HABIT OF DIALOGUE

Agenda	11
Speaker Bios	13
Icebreaker	21

DAY 2 – FOOD WATER ENERGY NEXUS

Agenda	25
Speaker Bios and Abstracts	27
Site Visit	37

DAY 3 – ENVIRONMENTAL SECURITY IN CONTINGENCY OPERATIONS

Agenda	41
Speaker Bios and Abstracts	43
Exercise	49

DAY 4 – MAINTAINING AN ENVIRONMENTAL SECURITY HABIT OF DIALOGUE

Agenda	53
Speaker Bios and Abstracts	55

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INFORMATION PAPER

SUBJECT: 2018 Northeast Asia Regional Environmental Security Forum (RESF) in Ulaanbaatar, Mongolia

1. Purpose: To provide stakeholders with the concept, background, description and objectives of the 2018 NE Asia RESF.

2. Background: Environmental security can be broadly defined as countering vulnerabilities caused by the abundance or scarcity of environmental resources and/or degradation. 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 and regional meetings (RESFs) are the cornerstones of U.S. Indo-Pacific Command's (USINDOPACOM) Environmental Security Program, which seeks to 1) increase understanding environmental stewardship obligations among militaries in the Indo-Pacific region, and 2) design and fund civ-mil projects with partner nations that develop mutual capabilities, interoperability and resiliency to environmental security challenges. USINDOPACOM and its partners collaborate on multiple efforts to tackle and overcome environmental security threats. This includes holding an annual PESF, where civilian and military representatives gather to discuss and share environmental security best practices and lessons-learned. It also means being a community of action to conduct regular environmental security projects that couple unique military capability with civilian expertise, deliver tangible and efficient results, and advance security in the region. Environmental security projects and cooperation are platforms for relationship building, opening doors for dialogue on other subjects too.

Ultimately, USINDOPACOM is dedicated to promoting environmental security awareness and sustainable environmental operations, and will continue to partner with civilian and military agencies in order to achieve environmental security objectives.

3. Description:

a) WHO:

- The 2018 event will include regional participation from countries with a specific interest in Northeast Asia: China, Japan, Korea, Mongolia, Australia, United States, and others.
- New Zealand is scheduled to host the 2019 PESF, and therefore, will attend the 2018 regional event in Mongolia.

b) WHAT:

- The 2018 RESF will be the eighth annual Indo-Pacific environmental security event organized by USINDOPACOM and the Mongolia Ministry of Defense.
- The 2018 event themes are establishing an environmental security habit of dialogue, food-water-energy nexus, and environmental security in contingency operations. Each theme in the 2018 RESF will include briefs by subject matter experts, followed by a panel session. The event will also include work group activities, enforcing the RESF themes and foster cooperation. The event will also highlight identified and prioritized environmental security engagements planned for the future between the Government of Mongolia and USINDOPACOM.

c) WHEN:

- 18-21 September 2018

4. Objectives: The 2018 RESF objectives are:

- Advance environmental security dialogue among militaries in the Northeast Asia region;
- Broaden civil-military environmental security cooperation in the Northeast Asia region;
- Strengthen environmental security coordination between and among U.S. Indo-Pacific Command and Northeast Asia partners;
- Increase awareness of environmental security issues, best practices and lessons-learned; and
- Enhance Mongolia's fundamental environmental security capability.

5. Points of Contact:

Mr. Christopher Sholes
Environmental Program Manager
U.S. Indo-Pacific Command
christopher.sholes@pacom.mil
+1 (808) 477-9420

Col Mike Matheis
USAF Reservist
U.S. Indo-Pacific Command
michael.matheis.2@us.af.mil
+1 (609) 562-6366

Lt Col Dr. Oyuntsetseg
Senior Desk Officer
Department of Strategic Policy
and Planning
Mongolia Ministry of Defense
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Indo-Pacific Command

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DAY 1 - ESTABLISHING AN ENVIRONMENTAL SECURITY HABIT OF DIALOGUE

TUESDAY, 18 SEPTEMBER 2018

0 8 0 0 - 0 9 0 0	REGISTRATION					
0 9 0 0 - 0 9 3 0	Opening Ceremony Comments by: <i>Mr. Manuel P. Micaller, Charge d'Affaires, U.S. Embassy - Mongolia USA and</i> <i>Mr. Ts. Batbayar, Vice Minister, Ministry of Environment and Tourism, Mongolia and</i> <i>BG G. Saikhanbayar, Chief of Strategic Policy and Planning Department, Ministry of Defense, Mongolia</i>					
0 9 3 0 - 0 9 4 0	GROUP PHOTO					
0 9 4 0 - 0 9 5 0	Administrative Reminders <i>COL Lhunde Battengel, Vice Director, National Defense University, Mongolia</i>					
0 9 5 0 - 1 0 2 0	Environmental Security Opportunities through the State Partnership Program <i>Colonel Kimberly DeRouen Slaven, Chief of the Joint Staff, Alaska National Guard, USA</i>					
1 0 2 0 - 1 0 4 0	BREAK 1					
1 0 4 0 - 1 1 0 0	USINDOPACOM Environmental Security Overview <i>Mr. Christopher Sholes, Environmental Program Manager, U.S. Indo-Pacific Command, USA</i>					
1 1 0 0 - 1 1 2 0	Mongolia Environmental Security Overview <i>Ms. T. Bulgan, Director General, Department of Green Development Policy and Planning, Ministry of Environment & Tourism, Mongolia</i>					
1 1 2 0 - 1 1 4 0	China Environmental Security Overview <i>COL Xie Chaoxin, Professor, Army Logistics University, People's Liberation Army, China</i>					
1 1 4 0 - 1 2 0 0	Korea Environmental Security Overview <i>Mr. Sung Gil Soo, Director, Environmental Cooperation Team, Ministry of National Defense, Republic of Korea</i>					
1 2 0 0 - 1 3 0 0	WORKING LUNCH					
1 3 0 0 - 1 3 4 5	Northeast Asia Environmental Security Panel Session Moderated by <i>Mr. Christopher Sholes, Environmental Program Manager, U.S. Indo-Pacific Command, USA</i>					
1 3 4 5 - 1 4 0 0	"Habit of Environmental Security Dialogue" Activity Overview <i>Mr. Justin Pummell, Geographer, U.S. Army Corps of Engineers, USA</i>					
1 4 0 0 - 1 4 3 0	BREAK 2					
1 4 3 0 - 1 6 0 0	Habit of Dialogue - Initial Session					
	AUS - USA	CHN - USA	JPN - USA	KOR - USA	MNG -USA	NZL - USA
1 6 0 0 - 1 6 1 5	Administrative Summary <i>COL Lhunde Battengel, Vice Director, National Defense University, Mongolia</i>					
1 8 3 0 - 2 0 0 0	ICEBREAKER <i>Reception by Deputy Vice Minister</i> <i>"Soyombo" Hall, Officer Palace</i>					

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Northeast Asia Regional Environmental Security Forum Biographies

DAY
1

OPENING CEREMONY

Mr. Manuel P. Micaller, Charge d’Affaires, U.S. Embassy – Mongolia



Mr. Micaller is a career member of the U.S. Foreign Service, rank of Counselor. He assumed duties as the Deputy Chief of Mission at the U.S. Embassy in Ulaanbaatar, Mongolia, in August 2016. Since November 10, 2017, he has served as Chargé d’Affaires ad interim.

He was Deputy Director of the Office of India Affairs in the Bureau of South and Central Asian Affairs (SCA) from 2014 to 2016. Previously, he was Political-Economic Section Chief, then Acting Deputy Chief of Mission in Dushanbe; Senior Economic Officer in the SCA Office of Regional Affairs, and Deputy Chief of the Economic Section in Rabat. He has also served in the Department of State’s Operations Center and Executive Secretariat Staff (the “Line”), Moscow, and Ashgabat, and worked for Tyco International as an Executive Council on Diplomacy Lawrence S. Eagleburger Fellow. Mr. Micaller has a B.A. from the Johns Hopkins University, an MBA from George Washington University, and is a Distinguished Graduate of the National War College, with an MS in National Security Strategy. He speaks Russian and Tajik Farsi.

Ноён Микаллер нь АНУ-ын Гадаад харилцааны албаны мэргэшсэн дипломат ажилтан бөгөөд Элчин зөвлөхийн зэрэгтэй. Тэрбээр Улаанбаатар дахь АНУ-ын Элчин сайдын яамны Дэд тэргүүнээр 2016 оны 8 дугаар сараас эхлэн ажиллаж байна.

2014-2016 онд тэрээр Төрийн Департаментын Өмнөд ба Төв Азийн асуудал эрхэлсэн товчооны Энэтхэгийн асуудал хариуцсан албанд дэд захирлаар ажиллаж байв. Үүнээс өмнө тэрээр Тажикстаны Душанбе дахь АНУ-ын Элчин сайдын яаманд Улс төр, эдийн засгийн хэлтсийн дарга, улмаар дэд тэргүүний үүргийг түр орлон гүйцэтгэгч, Өмнөд ба Төв Азийн асуудал эрхэлсэн товчоонд эдийн засгийн ахлах ажилтан, Мароккогийн Рабат хотод Эдийн засгийн хэлтсийн орлогч даргаар тус тус ажиллаж байжээ.

Мөн тэрээр Төрийн Департаментын Шуурхай албаны төвд ажиллаж байхдаа Москва, Ашхабад зэрэг газрууд руу томилогдож байв.

Үүнээс гадна Дипломат албаны гүйцэтгэх зөвлөлөөс хэрэгжүүлдэг Лоренс С. Ийглбургер хөтөлбөрийн гишүүнийхээ хувьд Тайко Интернэшнл байгууллагад ажиллаж байсан туршлагатай.

Ноён Микаллер нь Жонс Хопкинсын их сургуулиас бакалавр, Жорж Вашингтоны их сургуулиас бизнесийн удирдлагын магистрын зэрэг хүртжээ. Мөн тэрээр Үндэсний цэргийн дайны коллежоос үндэсний аюулгүй байдлын стратеги судлалаар магистрын зэрэг хүртсэн бөгөөд сургуулийнхаа шилдэг төгсөгч болсон юм. Тэрээр орос болон перс хэлтэй



Northeast Asia Regional Environmental Security Forum Biographies

**DAY
1**

OPENING CEREMONY

Mr. Tserendorj BATBAYAR, Vice Minister, Ministry of Environment and Tourism, Mongolia



Mr. Ts. Batbayar was born in Khutag Undur soum of Bulgan aimag in 1964, and has 14 years of professional experience working in the public sector. Recently, he dedicated his career to preserve Mongolia's natural habitat, keeping the ecosystem in balance and protecting the environment.

The State Great Khural (parliament) of Mongolia appointed Tserendorj Batbayar as the Vice Minister of Environment and Tourism of Mongolia in August 2016.

EDUCATION

1982 Secondary school in Erdenet city

1984 Volgograd Technical Institute

1996 "Shikhikhutug" Law School, Ulaanbaatar

2018 Mongolian national university, master's degree in politics science

- Professional development and leadership courses in Russia, India, Korea and Singapore
- Speaks Russian

WORKING EXPERIENCE

1984-1985 Electrician at Erdene-Bulgan's power distribution network

1987-1992 Construction Committee Master at the Ministry of Public Security

1993-1996 Member of The Mongolian People's Revolutionary Party of Ulaanbaatar city

1996-1997 Vice director of "Youth development" center

1997-1999 Secretary General of the Mongolian Democratic Socialist Youth Union

1999-2000 Legal advisor at the City Property Ownership Department

2005-2007 Advisor to the Minister of Transport and Tourism

2007- Secretary General of the Mongolian Left Wing Association



Northeast Asia Regional Environmental Security Forum Biographies

DAY
1

OPENING CEREMONY

Brigadier General SAIKHANBAYAR Gursed, Director of Strategic Policy and Planning Directorate, Ministry of Defense, Mongolia



LAST NAME:	Gursed
GIVEN NAME(S):	SAIKHANBAYAR
DATE OF BIRTH:	1968
PLACE OF BIRTH:	Ulaanbaatar. Mongolia
MARITAL STATUS:	Married /with 2 children
RANK:	Brigadier General
ORGANIZATION:	Ministry of Defence, Ulaanbaatar, Mongolia

PRESENT POSITION: Director of Strategic Policy and Planning Directorate, Ministry of Defense, Mongolia

EDUCATION BACKGROUND:

- Defense Management Academy, Mongolia, 1989
- Institute of the Public Administration and Management Development, Mongolia, 1995
- Strategic Course, National Defense University, People's Republic of China, 2002
- The General Staff Academy, Russian Federation, 2012-2014

PROFESSIONAL EXPERIENCE:

- Director of Public Administration Directorate, Ministry of Defense, 2005-2010
- Deputy Director of the Public Administration Directorate, Ministry of Defense, 2000-2005
- Chief, Department of Information, Public Affairs and Education, General Staff HQ, MAF, 1997-2000
- Staff Officer, Training Department, General Staff HQ, MAF, 1994-1997
- Public Affairs Officer, Unit #318, MAF, 1993-1994
- Deputy Company Commander, Unit #318, MAF, 1990-1993
- Deputy Company Commander, Unit #121, MAF, 1989-1990



Northeast Asia Regional Environmental Security Forum Biographies

DAY
1

PRESENTER 1

Colonel Kimberly DeRouen Slaven, Chief of the Joint Staff, Alaska National Guard, USA



Colonel Kimberly DeRouen Slaven enlisted into the California National Guard, 649th Military Police Company in 1983, and served full time in various enlisted positions. Colonel DeRouen Slaven was commissioned in 1988 thru the California Military Academy. Colonel DeRouen Slaven was branched as a Transportation Officer and assigned as a Transportation Platoon Leader with the 2632nd Transportation Company and served their full time. Colonel DeRouen Slaven deployed to Operation DESERT STORM with the 2220th Transportation Company, Arizona National Guard. Upon her return, Colonel DeRouen Slaven transferred to the Louisiana National Guard. Colonel DeRouen Slaven

has served in staff officer assignments at the Brigade, Division and Army Service Component Command, Army Staff and Joint Staff levels. In 2015, Colonel DeRouen Slaven transferred to the Alaska Army National Guard, and is currently serving full time as the Chief of the Joint Staff.

Colonel DeRouen Slaven's previous assignments include: Executive Officer Forward Area Support Company South West Asia; Executive Officer, 1083rd Transportation Company, Louisiana National Guard; S3, 735th Corps Support Battalion and S1, 35th Engineer Brigade Missouri National Guard; S1, 192nd Support Battalion Puerto Rico National Guard; Operations Officer in the 2nd Infantry Division Rear Tactical Operations Center (United States Army Reserves); J1 Plans and Operations United States Forces Korea; 343rd Support Center, Reserve Advisor and Protocol Officer, Eighth United States Army Korea and Observer/Controller 2nd Battle Command Group. In 2006, Colonel DeRouen Slaven transferred to the Wyoming National Guard and served as the Equal Opportunity Advisor for The Adjutant General and the G1. She then transferred to the California National Guard where she served as the Family Program Manager, J4 Logistic Planner, and Commander 746th CSSB. In 2015 she transferred to the Alaska National Guard where she was assigned as the J1, Director of Manpower and Personnel and is currently assigned as the Chief of the Joint Staff.

Colonel DeRouen Slaven holds a Bachelors of Science Degree in Nursing from Inter-Americana Universidad Puerto Rico and a Master's Degree in Strategic Studies from the United States Army War College, Carlisle Pennsylvania. Colonel DeRouen Slaven military education includes: the Dual Status Commander's Course, United States Army War College, the United States Army Command and General Staff Officer Course, the Combined Arms and Services Staff School, the Reserve Component National Security Course, the Support Operations Course, the Equal Opportunity Advisor Course, the Reserve Component Theater Sustainment Course and 7th Infantry Division Noncommissioned Officer (NCO) Academy.

Colonel DeRouen Slaven awards include: the Meritorious Service Medal, Joint Service Commendation Medal, with one Bronze Oak Leaf Cluster; the Army Commendation Medal, with one



Northeast Asia Regional Environmental Security Forum Biographies

**DAY
1**

Bronze Oak Leaf Cluster; the Joint Service Achievement Medal; the Army Achievement Medal; Army Good Conduct Medal; the Army Reserve Component Achievement Medal, with one Silver and three Bronze Oak Leaf Clusters; the National Defense Service Medal, with one Bronze Service Star; the Southwest Asia Service Medal, with one Bronze Service Star; the Kuwait Liberation Medal; the Noncommissioned Officer Professional Development Ribbon; the Army Service Ribbon; the Overseas Service Ribbon; the Army Reserve Components Overseas Training Ribbon; the Armed Forces Reserve Medal, with "M" Device; the Global War on Terrorism Service Medal and the Korean Defense Service Medal.



Northeast Asia Regional Environmental Security Forum Biographies

DAY
1

PRESENTER 2

Mr. Christopher Sholes, Environmental Program Manager, U.S. Indo-Pacific Command



Chris Sholes is the Environmental Security Program Manager within the USINDOPACOM Engineering Division. His duties include overseeing environmental compliance for bilateral exercises (e.g. Talisman Saber), and planning the Pacific Environmental Security Forum and international environmental workshops. He also monitors environmental impact assessments developed by the service components and coordinates projects with State of Hawaii offices and others on environmental matters. His previous experience includes project management of various environmental remediation projects throughout Hawaii and the Pacific including soil and water remediation and UXO clearance in Saipan, Guam, Japan and Korea, Palmyra and other remote islands. He has five degrees including two from the London School of Economics in International Relations and Economics and an MS in Systems Engineering from the Naval Postgraduate School. He is a certified contracts manager (CPCM) and certified project manager (PMP) from the respective US national certifying organizations.



Northeast Asia Regional Environmental Security Forum Biographies

DAY
1

PRESENTER 3

**Ms. T. BULGAN, Director General, Department of Green Development Policy and Planning,
Ministry of Environment & Tourism, Mongolia**



Mrs. T. Bulgan has been working as Director General for the Department of Green Development Policy and Planning, Ministry of Environment and Tourism since 2013. Previously, she held positions as senior officer at the National Security Council of Mongolia, consultant at Standing Committee on Environment, Food and Agriculture, Secretariat of the State Great Khural (Parliament) of Mongolia, engineer, chief engineer at Central Laboratory of Environmental Monitoring. She graduated from the State Hydrometeorological University of Sankt-Petersburg, Russia and completed a master of the National University of Mongolia.

Т.Булган

Ногоон хөгжлийн бодлого, төлөвлөлтийн газрын дарга
Байгаль орчин, аялал жуулчлалын яам

Т.Булган нь 2013 оноос Байгаль орчин, аялал жуулчлалын яамны Ногоон хөгжлийн бодлого, төлөвлөлтийн газрын даргаар ажиллаж байна. Өмнө нь Ус цаг уурын албаныг удирдах ерөнхий газрын Орчны бохирдлыг хянах хэлтэст инженер, Байгаль орчны шинжилгээний төв лабораторид инженер, ерөнхий инженер, УИХ-ын Байгаль орчин, хүнс, хөдөө аж ахуйн байнгын хороонд референт, Байгаль орчны яаманд ахлах мэргэжилтэн, Үндэсний аюулгүй байдлын зөвлөлд референтээр тус тус ажиллаж байсан. Т.Булган ОХУ-ын Санкт Петербург хотын Ус цаг уурын их сургуулийг үсзүйч инженер мэргэжлээр төгсч, МУИС-ийн магистр болсон.



Northeast Asia Regional Environmental Security Forum Biographies

DAY
1

PRESENTER 4

COL XIE Chaoxin, Professor, Army Logistics University, People's Liberation Army, China



XIE Chaoxin, Army Logistical University of the PLA, Senior Colonel, is engaged in teaching and research of military environment protection.



Northeast Asia Regional Environmental Security Forum Biographies

DAY
1

PRESENTER 5

**Mr. Sung Gil Soo, Director, Environmental Cooperation Team, Ministry of National Defense,
Republic of Korea**

□ Date of Promotion to Secretary Official (C4) : '07.8.

- '94. 9 : M.A. Economic Development Policy Birmingham University U.K
- '82. 2. : B.A. Public Sociology, Jeonbuk University

□ Major Careers (MND)

- '00. 8. ~ '02. 6. : Assistant Director, American Policy Div. MND
- '02. 7. ~ '05.12. : Assistant Director, Investment & Evaluation Div. MND
- '06. 1. ~ '07. 8. : Assistant Director, Military Pension Div. MND
- '07. 8. ~ '10. 8. : Assistant Director, Audit & Inspection Div. MND
- '10. 9. ~ '13.12. : Assistant Director, Logistics Planning & Management Div. MND
- '14. 1. ~ '15. 1. : Director, Government Properties Division
- '15. 1. ~ '17. 1. : Director, National Icheon Cemetery
- '17. 1. ~ '18. 1. : Director, Reserve Mobilization Div. MND
- '18. 1. ~ : Director, Division Environmental Coordination Div. MND

□ Government Citation

- '01. 12. : Commendation for Merit by Minister of National Defense
- '95. 12. : Commendation for An Exemplary Official by Prime Minister
- '82. 12. : Commendation for Merit by Director of Board of Audit & Inspection





Northeast Asia Regional Environmental Security Forum Icebreaker

DAY
1

ICEBREAKER DETAILS

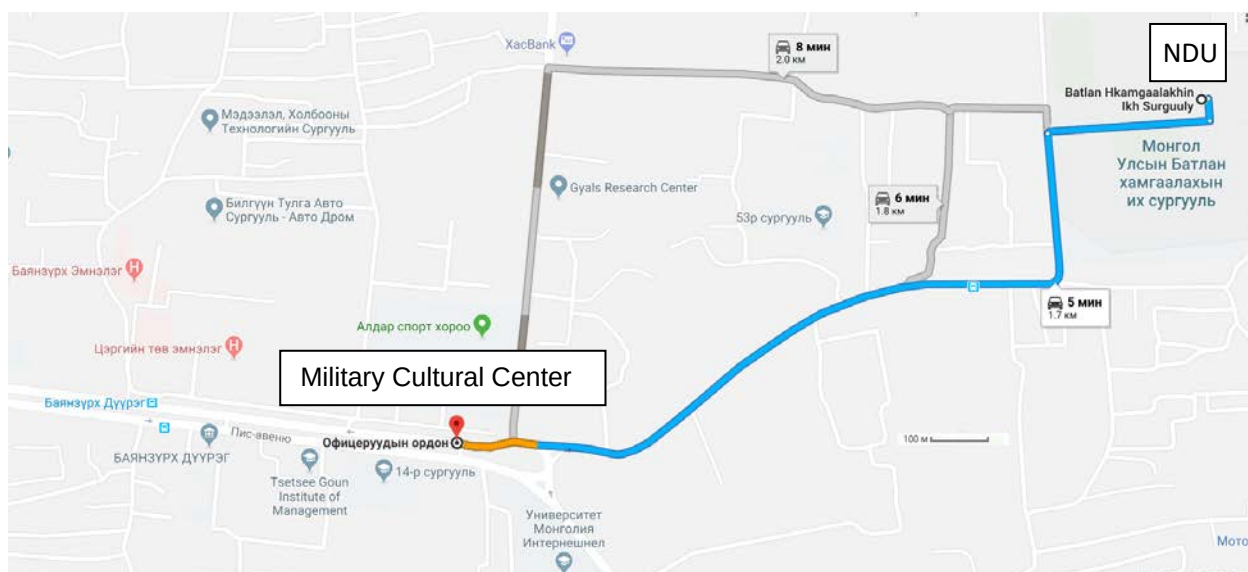
When: 18 September 2018, 18.00 – 20.00 hours

Where: Military Cultural Center (Офицеруудын ордон), Ulaanbaatar, Mongolia

Draft Program

- | | |
|-------------|---|
| 18.00-18.20 | National Song and Dance performance by the Military Song and Dance Ensemble (Concert Hall) |
| 18.20-20.00 | Buffet Dinner hosted by the Vice Defense Minister of Mongolia, Mr. T.Dulamdorj (Soyombo Hall) |

Bus transportation will be provided for RESF participants.





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Indo-Pacific Command

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DAY 2 - FOOD-WATER-ENERGY NEXUS

WEDNESDAY, 19 SEPTEMBER 2018

0 8 5 5 - 0 9 0 0	Administrative Remarks
0 9 0 0 - 0 9 1 0	Introduction to Food-Water-Energy Nexus Theme <i>BG Chimeddorj Sosorbaram, Chief of Security and Defense Policy Studies Center, Institute for Defense Studies, National Defense University, Mongolia</i>
0 9 1 0 - 0 9 4 0	Major Communicable Diseases in Livestock in Recent Years in Mongolia <i>Ms. J. Saule, Deputy Minister of Food, Agriculture and Light Industry, Mongolia</i>
0 9 4 0 - 1 0 1 0	Dietary Reference Intakes for Mongolians <i>Dr. J. Tuyatsetseg, Professor and Director of Industrial Technology School, Mongolian University of Science and Technology, Mongolia</i>
1 0 1 0 - 1 0 3 0	BREAK
1 0 3 0 - 1 1 0 0	Ecological Perspectives on Former Military Sites <i>Dr. Associate Professor and Lieutenant Colonel OYUNTSETSEG Luvsandash, Senior Specialist of Strategic Policy and Planning Department, Ministry of Defense, Mongolia</i>
1 1 0 0 - 1 1 3 0	State Policy on Energy Sector <i>Mr. Sh. Ganzorig, Specialist of Policy and Planning Department, Ministry of Energy, Mongolia</i>
1 1 3 0 - 1 2 0 0	Food-Water-Energy Nexus Panel Session <i>Moderated by BG Chimeddorj Sosorbaram, Chief of Security and Defense Policy Studies Center, Institute for Defense Studies, National Defense University, Mongolia</i>
1 2 0 0 - 1 3 0 0	WORKING LUNCH
1 3 0 0 - 1 3 1 5	Site Visit Summary <i>COL Lhundeov Battengel, Vice Director, National Defense University, Mongolia</i>
1 3 1 5 - 1 3 4 5	TRANSIT TO SITE VISIT
1 3 4 5 - 1 6 1 5	SITE VISIT - "SHAR KHAD" INSTITUTION 1. Soil contamination Caused by Waste 2. Soil and Environmental Pollution Caused by Household Wastewater 3. "Tsagaan Davaa" Dump Site, and Its' Impact on the Military
1 6 1 5 - 1 7 0 0	TRANSIT FROM SITE VISIT

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Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
2

THEME LEADER

BG Chimeddorj SOSORBARAM, Chief of Security and Defense Policy Studies Center, Institute for Defense Studies, National Defense University, Mongolia



Full Name: Chimeddorj SOSORBARAM

Date of Birth: June 4 1958

Marital status: Married with 3 children

Education

1965-1975	Secondary school # 21, Ulaanbaatar, Mongolia
1975-1979	Military academies, Ulaanbaatar Mongolia
1985-1989	Military staff college-signal, Leningrad, USSR
1995-1996	US Command General Staff College
2000-2001	US Army War college

MA degree in military equipment at the University of Defense, Mongolia

MA degree in security and strategic studies at the US Army War College

PhD -Doctor of history 2011 at the National University of Mongolia

Career

1979-1996	Platoon and Company commander, deputy chief of staff of the regiment, various positions at the Ministry of Defense and GS,
1996-1997	Head of Division and deputy of the Policy, planning Department of Ministry of Defense
1997-2000	Officer of the National Security Council, senior officer at the Presidential office
2001-2002	Counselor to the Chief of General Staff of the Mongolian Armed Forces
2002-2009	Head of Policy and Strategic planning Department of the Ministry of Defense
2009-2012	Head of information and Analyses Department of the GIA
2012-2015	Senior advisor to the Standing committee on Security and Foreign Policy. Parliament of Mongolia
2015-2018	Head of the Foreign Cooperation Department of the Ministry of Defense
2018-present	Head of Center of Defense and Security Studies, Institute for Defense Studies, National Defense University, Mongolia

Rank: Brigadier General

Office: Governmental Building 7, Bayanzurkh Street, Dandar Street,
Ulaanbaatar

Mobile: 976- 9971 9700

E-mail: sosorb58@yahoo.com



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
2

PRESENTER 1

Ms. SAULE Janimkhan, Deputy Minister of Food, Agriculture and Light Industry, Mongolia

BIO



SAULE Janimkhan started her career working as Referent at Cabinet Secretariat of Government of Mongolia. From 2008-2012, she worked as Vice Minister of Food, Agriculture and Light Industry, and in the year 2016 she was re-elected as Vice Minister of Food, Agriculture and Light Industry for the second time. She is well qualified and experienced leader.

From 2008-2012, while she was working as Vice Minister, she played an important role to approve and implement the 3rd campaign of Atar (National program of Mongolia Livestock); the state policy of herders; the international donor funded project known as, "Green Gold Pastureland ecosystem management Program"; national programs of Mongolian potato and Decreasing poverty in rural areas; "Strengthening the early warning system of infectious animal borne diseases that transmitted through borders" project; "Supporting the development on combination of livestock and crop farming project"; "Animal health and Livestock market" project; and "Improving the animal breeding" project.

Since 2016, she has been a work group leader focused on the law of Government funding, the law of Custom duty exemption, the law of Animal health, and the law of Animal genetic resources, which have all been approved by the State's Great Khural. She has also helped ratify the, "International treaty on genetic resources of Food, agriculture and plant UN- FAO," which has been submitted and approved by the State's Great Khural on May 10, 2018.

Жанимханы САУЛЕ.

Монгол Улсын Хүнс, Хөдөө аж ахуй, Хөнгөн үйлдвэрийн дэд сайд.

Ж.Сауле нь ажлын гараагаа төрийн байгууллагаас эхэлж Засгийн газрын Хэрэг эрхлэх газарт референт, 2008-2012 онд Хүнс, хөдөө аж ахуй, хөнгөн үйлдвэрийн дэд сайдаар ажиллаж байсан, 2016 онд дэд сайдын албанд хоёр дахь удаагаа томилогдон ажиллаж байгаа төрийн албаны мэргэшсэн, туршлагатай боловсон хүчин юм.

Тэрээр 2008-2012 онд ХХААХҮ-ийн дэд сайдаар ажиллаж байхдаа "Атрын III аян", "Монгол мал" хөтөлбөр, Төрөөс малчдын талаар баримтлах бодлогыг баталж хэрэгжүүлэхэд гол үүрэг гүйцэтгэсэн юм.

Мөн дээрх онуудад Хүнс, хөдөө аж ахуй, хөнгөн үйлдвэрийн салбарт хандивлагчид болон олон улсын байгууллагын "Бэлчээрийн экосистемийн удирдлагын ногоон алт" хөтөлбөр, "Монгол төмс", "Хөдөөгийн ядуурлыг бууруулах" хөтөлбөр, "Мал, амьтны хил дамжин халдварладаг өвчнийг урьдчилан мэдээлэх системийг бэхжүүлэх нь" төсөл, "Мал аж ахуй, газар тариалангийн хосолсон загвар аж ахуйн хөгжлийг дэмжих" төсөл, "Малын эрүүл мэнд, мал аж ахуйн зах зээл" төсөл, "Малын үржлийн ажлыг шинэчлэн сайжруулах" зэрэг олон төсөл, хөтөлбөрийг хэрэгжүүлэхэд гол үүрэг гүйцэтгэн ажиллалаа.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
2

2016 онд Хүнс, хөдөө аж ахуй, хөнгөн үйлдвэрийн дэд сайдаар дахин томилогдон Засгийн Газрын сангийн тухай, Гаалийн албан татвараас чөлөөлөх тухай, Мал, амьтны эрүүл мэндийн тухай, Малын генетик нөөцийн тухай хуулиудыг боловсруулах ажлын хэсгийг ахлах болон ажлын хэсэгт орж ажиллаж, эдгээр хуулиудыг УИХ-аар хэлэлцүүлэн батлуулсан.

“Нэгдсэн Үндэстний Байгууллагын хүнс, хөдөө аж ахуйн байгууллагын Хүнс, хөдөө аж ахуйн ургамлын генетик нөөцийн олон улсын гэрээ”-г соёрхон батлах тухай хуулийн төслийг 2018.05.10-ны УИХ-ын чуулганы нэгдсэн хуралдаанаар хэлэлцүүлэн батлуулав.

ABSTRACT

Major Communicable Diseases in Livestock in Recent Years in Mongolia

No abstract provided.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

**DAY
2**

PRESENTER 2

**Dr. TUYATSETSEG Jambal, Associate Professor and Director of School of Industrial Technology,
Mongolian University of Science and Technology, Mongolia**

BIO



Name:	Jambal Tuyatsetseg
Office address:	School of Industrial Technology, Mongolian University of Science and Technology, Baga toiruu- 42, Ulaanbaatar, Mongolia
Tel.:	+976-11-324590-ext.-2601, +976-11-311907
Mobile:	+976-91915451

Sample Education/Qualifications:

Name and city of institutions of study	Years of study		Field of study	Degrees/Certificate
	from	to		
Ministry of Food, Agriculture and Light Industry, Ulaanbaatar, Mongolia	January, 2009		Food Processing	Certificate of Consulting Engineer Mongolia
Mongolian University of Science and Technology, Ulaanbaatar, Mongolia	2005	2008	Technical Science	Doctor of Philosophy in Technical Science
The United Nations University Fellowship at National Food Research Institute, Tsukuba, Japan	April 2004	April 2005	Food Biochemistry	Certificate of Fellowship



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

**DAY
2**

Mongolian University of Science and Technology, Ulaanbaatar, Mongolia	1996	1998	Technical Science	Master of Food Engineering
Food Technology University, Moscow, Russia	1982	1988	Food Engineering	Bachelor Degree

Recent Employment

Name and address of work	Years of service		Title of your post	Type of organization
	from	to		
Mongolian University of Science and Technology, Baga toiruu-42, Ulaanbaatar, Mongolia	1997	2004	Lecture, Scientific secretary,	public
	2004	2009	Director School of Industrial Technology	
	2009	nowadays		

Present job Duties

Responsible for teaching students, conducting and supervising researches, organizing graduate and postgraduate courses in fields of Food Processing & Technology Equipment.

Teaching subjects

Teaching the following courses was taught to the Bachelor and M. Sc. student in Food Engineering:

- 1) L.FE204 Food Process and Apparatus
- 2) L.FM336 Food Equipment
- 3) L.FM523 Food Engineering
- 4) L.FM332 Food Processing Line & Operation Model

Publications

Author of 8 books, editor of 4 books, published more than 30 scientific articles in Mongolian and International journals, attended and gave presentation in 5 International Conferences and Meetings.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
2

ABSTRACT

Dietary Reference Intakes for Mongolians

Abstract

In order to improve the nutritional status and with reference to the recommendations of other countries, the first edition of Recommended Dietary Requirement (RDA) for Mongolian was established by Ministry of Health (MOH) in 1981. During that time, Russian experts leading the estimated the Daily Requirement of nutrients and it was covered the different age groups, such as infants, toddlers, teenagers, adults and elderly. In 1991, the Democratic Revolution had been started and our society changed, most of food factory closed and number of unemployment had increased. In light of the fast changing political, economic, environment and migration from countryside to city of Mongolia, a timely update of the nutrition situation in the country is needed in order to adjust policy and program strategies to address the unmet nutrition needs of the population.

To assess the nutrition status of Mongolian were conducted the National Nutrition Survey I (NNS I) in 1992, NNS II in 1999, NNS III in 2004, NNS IV in 2010 and NNS V in 2017 by MOH with support from international organization. Based on these findings, the government of Mongolia implemented various initiatives to reduce the burden of malnutrition including: breastfeeding promotion, child growth promotion, salt fortification with iodine for reduce iodine deficiency, moreover vitamin A, vitamin D and multi-micronutrient supplementation.

In the same time, RDA and dietary guidelines were revised concurrently as the results of national nutrition survey showed dietary and nutrient deficiency of Mongolian population. The results showed that the prevalence of chronic diseases, including overweight, obesity, diabetes mellitus, CVD etc. On the basis of these findings were required to update the RDA for Mongolian population for preventing the chronic diseases. Therefore, 1997, 2008 and 2017, the RDA for Mongolian had been revised and during the updating calories from daily food had decreased, average calories were 2800 kcal in 1997, it was decreased to be 2600 kcal in 2008 and now we used to recommend 2400 kcal in 2017. In 2000, the first edition of dietary guidelines for Mongolian was established and published "Ger" (traditional house) guidelines by MOH. The main purposes of the guidelines were to guide nutritional professionals and to plan diet for preventing population from nutrients deficiency and diseases. As the eating behavior and food related diseases may change, the governments and nutrition societies should keep revising and updating the dietary guidelines and recommended dietary allowances to prevent diseases and encourage public health.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
2

PRESENTER 3

Dr. Associate Professor and Lieutenant Colonel OYUNTSETSEG Luvsandash, Senior Specialist of Strategic Policy and Planning Department, Ministry of Defense, Mongolia

BIO



LAST NAME:	Luvsandash
GIVEN NAME:	OYUNTSETSEG
PLACE OF BIRTH:	Ulaanbaatar
RANK:	Lieutenant Colonel
ORGANIZATION:	Ministry of Defense, Ulaanbaatar, Mongolia

PRESENT POSITION: Senior Expert (Policy) of Strategic Policy & Planning Department and Coordinator, Science and Technology Council, Ministry of Defense, Mongolia

EDUCATIONAL BACKGROUND:

1985-1990	Mathematic & Physics Faculty, National University of Mongolia, Ulaanbaatar, Mongolia	Bachelor's degree. Diploma No 22688
1996-1998	Postgraduate School, Defense University of Mongolia, Ulaanbaatar, Mongolia	Master's degree. Diploma No 98023
2008-2010	Postgraduate School, National University of Mongolia, Ulaanbaatar, Mongolia	Doctor's Degree of the Computer Science (Ph.D.). Diploma No F20104073

CAREER APPOINTMENTS:

- 1990-1995, Math & Computer Science teacher, High School # 48, Ulaanbaatar;
- 1995-2004, Computer Science Instructor, Computer Training Center, Defense University of Mongolia;
- 2004-2011, Head, Computer Training Center, Defense University of Mongolia;
- 2011-Apr. 2015, Senior Expert (Policy) of Strategic Policy & Planning Department and Coordinator, Science and Technology Council, Ministry of Defense, Mongolia
- Oct., 2015-present, Senior Expert (Policy) of Strategic Policy & Planning Department and Coordinator, Science and Technology Council, Ministry of Defense, Mongolia



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
2

ABSTRACT

Ecological Perspectives on Previously Used Military Sites

Legislation and other legal acts regulate the prevention of soil pollution in Mongolia and the protection of soil from degradation and rehabilitation.

In Mongolia, the main source of soil pollution is caused by mining, processing factories, ger district sanitation, improper solid waste disposal, and the burning of coal. In urban areas, bacterial pollution associated with ger sanitation is high, whereas mining is more commonly a rural issue. The waste of municipalities, aimag, and soums are the main cause of soil pollution.

The amount of mercury, chromium, zinc and strontium in soil in most of Ulaanbaatar's soils is higher than in previous years.

There is soil pollution in Arkhangai, Bayankhongor, Bulgan, Gobi-Altai, Govi-Sumber, Darkhan-Uul, Zavkhan, Orkhon, Selenge, Tuv, Uvs, Khovd and Khovsgol aimags. For example, the maximum concentration of lead in the Bayan Nexuses point at Govisumber aimag exceeded 580.5 mg/kg, and the harmful levels of zinc content reached 7.8 times.

Research studies found that 10.9 thousand hectares of land, 30 of which were used for military purpose, were mostly destroyed by the collapse of the former military sites.

In collaboration with the Institute of Geography and Geo-Ecology of the Mongolian Academy of Sciences, the Mongolia Ministry of Defense conducted a survey of soil pollution in 18 military locations. The research discovered that most sites are contaminated with oil products, and in some areas, heavy metals and construction wastes are causing ecological vulnerability and population risk.

Therefore, it is necessary to prioritize long-term programs and projects to determine the extent of the rehabilitation of the land of abandoned military sites.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
2

PRESENTER 4

Mr. Shagdursuren GANZORIG, Specialist of Policy and Planning Department, Ministry of Energy, Mongolia

BIO

Education

- 2014-2016: Master's degree of Science in Engineering, Seoul National University, South Korea
- 2008-2010: Master's degree of Engineering in Power Electric System, Mongolian University of Science and Technology
- 2003-2007: Bachelor's degree of Engineering in Power Electrical System, Mongolian University of Science and Technology



Language & Degree of Proficiency

- Mongolian – Native
- English – good
- Germany – good
- Russian – good

Membership of Professional Societies

- Member of the board of Mongolian Civil Health Association

Employment Record

- (2012-2018) Senior Officer in charge for Policy and Planning at Policy and Planning Department, Ministry of Energy
- (2011-2012) Officer in charge for Energy policy and planning at Energy Policy Department, Ministry of Mineral resource and Energy
- (2009-2011) Officer in charge for Power flow Analysis Stability Analysis of electricity network at Electrical division, Government implementing Agency Energy Authority
- (2006-2009) Research engineer, Supervisor engineer at Contract- tender and technical monitoring division at Energy Research and Development Center under the Ministry of Fuel & Energy
- (2003-2006) as Researcher, as Technician of Power flow calculation in Erchim research center.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

**DAY
2**

ABSTRACT

State Policy on Energy Sector

The presentation will focus upon the current state policy of the energy sector in Mongolia. The presenter will provide national statistics on energy capability, as well the current challenges Mongolia faces with energy. The presentation will highlight Mongolia's legal environment framework as it relates to energy, and the speaker will explain the State Policy on Energy 2015-2013 for Mongolia. The presenter will emphasize that Mongolia is focused on renewable, environmentally-friendly technology development in the future to ensure a sustainable approach. The presentation will conclude with a short description of large planned power projects in Mongolia in the future.



Northeast Asia Regional Environmental Security Forum Site Visit

DAY
2



Each participant will be assigned a van that will take them to the following stops on the Site Visit Circuit. At each stop there will be a tour and a discussion about the location and its significance to environmental security.

All vans will visit each site, but not necessarily in the order below to evenly distribute the visitor numbers.

“Tsagaan Davaa” Waste Disposal Site

Tsagaan Davaa waste disposal site was established in 2012. Wastes from Bayangol, Sukhbaatar, and Bayanzurkh districts are disposed at this dump site making it the biggest dump site in Ulaanbaatar with over 50percent of all waste of city accumulated and disposed here.

Around 350-400 vehicle, approximately 1000tonne waste is delivered everyday making it total of 30000tonne waste in 1 month. Because there wasn't any planning done beforehand on waste disposal sites, dimension of the dump site is getting bigger and bigger every day.

Tsagaan Davaa waste disposal site is located 1.5km from the Shar Khad field training center and contamination and pollution caused by dump site in neighboring area is increasing drastically over the years which is effecting not only training center but also Uliastai river basin.

Soil and water pollution caused by the household waste water

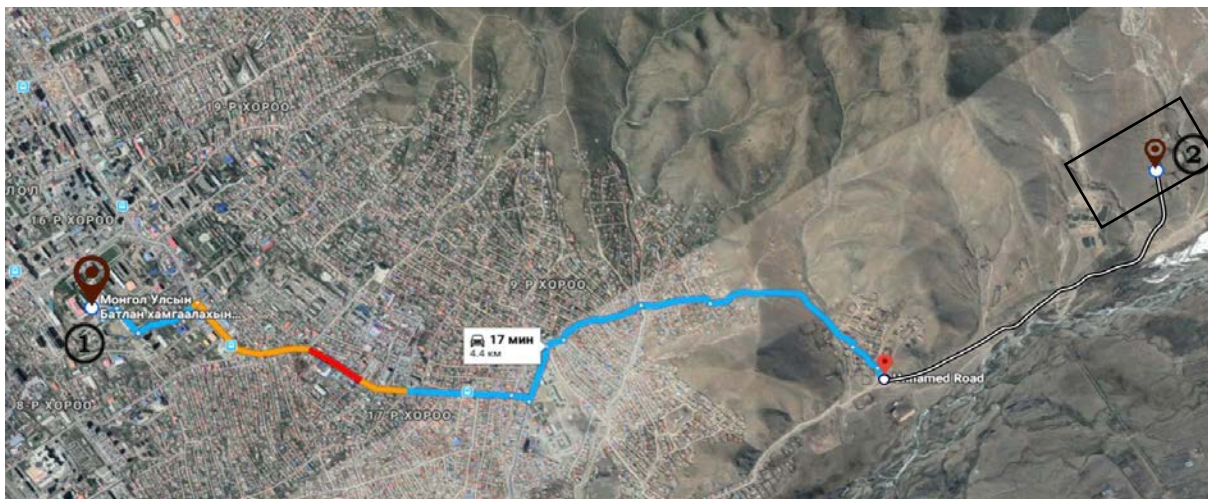
At one session, around 200-800 trainees conduct training at Shar Khad field training center of National Defense University of Mongolia. On average occupancy, around 4-5 tonne waste water is disposed on daily basis and since training center is not connected to central sewage system, it is causing huge pollution damages to the Uliastai river basin. As this situation is common in ger district of Ulaanbaatar, it is becoming one of the most crucial hygiene issue for not only military personnel but also residents of the city.



Northeast Asia Regional Environmental Security Forum Site Visit

DAY
2

SITE MAP



From NDU 7.3 km. paved road 4 km, dirt road 3.3 km. it will take 20-25 minutes by bus to reach the site.

1. NDU
2. 'Shar Khad' Training Center



1. Contaminated area affected by the city waste
2. Tsagaan Davaa city waste site
3. Sewage water contamination site



Co-Sponsored by: | Mongolia Ministry of Defense and the U.S.
Indo-Pacific Command

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DAY 3 - ENVIRONMENTAL SECURITY IN CONTINGENCY OPERATIONS

THURSDAY, 20 SEPTEMBER 2018

0 9 0 0 - 0 9 0 5	Administrative Remarks
0 9 0 5 - 0 9 1 5	Introduction to Contingency Operations Theme <i>Brigadier Craig Dobson, Director General Support (J1/J4), Headquarters Joint Operations Command (DGSPT HQJOC), Australia</i>
0 9 1 5 - 0 9 3 5	Environmental Security as a Cause / Threat to Instability <i>COL Mike Goodyer, Senior Environmental Planner, SPT Branch, Headquarters Joint Operations Command, Australia</i>
0 9 3 5 - 0 9 5 5	The United Nations and Environmental Peacebuilding <i>Dr. Lisa Guppy, Disaster and Conflict Regional Coordinator (Asia/Pacific, United Nations Environment Programme (UNEP))</i>
0 9 5 5 - 1 0 1 5	Heritage Under Fire: Preservation and Protection of Heritage <i>LCDR Andrea Argirides (Royal Australian Navy), PhD, Deputy Chief Joint Effects Headquarters Joint Operations Command, Australia</i>
1 0 1 5 - 1 0 4 5	BREAK
1 0 4 5 - 1 1 0 5	Benefits of Incorporating International Standards into Contingency Operations Planning <i>MAJ Travis Collins, Environmental Planner, Headquarters Joint Operations Command, Australia</i>
1 1 0 5 - 1 2 0 0	Environmental Security Contingency Operation Panel Session <i>Moderated by Brigadier Craig Dobson, Director General Support (J1/J4), Headquarters Joint Operations Command (DGSPT HQJOC), Australia</i>
1 2 0 0 - 1 3 0 0	WORKING LUNCH
1 3 0 0 - 1 3 1 5	Contingency Operations Exercise Summary <i>MAJ Travis Collins, Environmental Planner, Headquarters Joint Operations Command, Australia</i>
1 3 1 5 - 1 4 1 5	Contingency Operations Table-Top Exercise: Session 1
1 4 1 5 - 1 4 4 5	BREAK
1 4 4 5 - 1 5 4 5	Contingency Operations Table-Top Exercise: Session 2
1 5 4 5 - 1 6 0 0	Administrative Summary <i>COL Lhundev Battengel, Vice Director, National Defense University, Mongolia</i>

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Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
3

THEME LEADER

Brigadier Craig Dobson, Director General Support (J1/J4), Headquarters Joint Operations Command (DGSPT HQJOC), Australia



Brigadier Dobson was born in Shepparton, Victoria in 1970 and completed a Bachelor of Commerce at Deakin University before entering RMC Duntroon in January 1991. Brigadier Dobson was commissioned into the Royal Australian Army Ordnance Corps in June 1992.

Brigadier Dobson's career has been characterised by command and staff appointments in logistics and career management roles. His formative experiences included postings to 2nd Field Supply Battalion, 3rd Brigade Administrative Support Battalion and Army Logistic Training Centre. These experiences were further developed through posting to the 1st Battalion, The Royal Australian Regiment as the Second-in-Command of Administration Company, Aide-de-Camp to the Support Commander-Army and culminated in promotion to Major and appointment initially as the Battalion Operations Officer, and then Officer Commanding, 2nd Field Supply Company, 10th Force Support Battalion (10 FSB).

Brigadier Dobson attended Australian Command and Staff College in 2005 and was subsequently posted to the Directorate of Officer Career Management-Army (DOCM-A) as Career Advisor Ordnance. This posting marked a transition to more advanced command and staff appointments including the Senior Officer Manager – Army (2007-08) within DOCM-A, Commanding Officer 10 FSB (2009-10) and as the SO1 Domestic Commitments (2011) and Chief of Staff (2012) both within Military Strategic Commitments (MSC) Branch. Prior to attending the Defence and Strategic Studies Course in 2016, he was the Director of Officer Career Management – Army (November 2012 to October 2015). Brigadier Dobson was promoted to his current appointment as Director General Support (J1/J4), HQ Joint Operations Command in December 2016.

While Commanding Officer 10 FSB, Brigadier Dobson deployed to Op SLIPPER to command Force Support Unit – 2 (July 2009 to April 2010) and when a sub-unit commander, he deployed to Op ANODE as the Officer Commanding of the Force Support Squadron (November 2004 to March 05). Brigadier Dobson has also served as a Military Observer and Operations Officer within the Observer Group Golan - Damascus element of the United Nations Truce Supervision Organisation (June 2001 until July 2002).

Brigadier Dobson holds post-graduate qualifications in Management (Defence Studies) from the University of Canberra and in Engineering (Integrated Logistics Management) from the Royal Melbourne Institute of Technology. In the Queen's Birthday honours list of 2016, Brigadier Dobson was appointed a Member of the Order of Australia and in 2012 he was awarded a Conspicuous Service Cross. He has also been awarded a Chief of Army Commendation and a Commander Australian Theatre Commendation. He is married to Lisa and his leisure interests include travel, reading, snow skiing and bush-walking/trekking.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
3

PRESENTER 1

COL Mike Goodyer, Senior Environmental Planner, SPT Branch, Headquarters Joint Operations Command, Australia

BIO



Colonel Michael Goodyer was commissioned into the Royal Australian Infantry Corps in December 1976 and has had an extensive career in command, regimental and joint appointments before transferring to the Reserves in 2004. He has served on operations in SE Asia, the Middle East and Afghanistan. He has been an exchange officer with the US Army and UK Army. As a Reserve officer he has worked within Headquarters Joint Operations Command as the Director Operational Evaluation and the Senior Environmental Planner. In the latter role he has developed and fielded an environmental compliance framework for military operations overseas.

Colonel Goodyer is a graduate of the Royal Military College, Duntroon, Australian Army Command and Staff College and the Joint Services Staff College. His academic qualifications include a Bachelor of Arts Degree in Military Studies (UNSW); Masters Degree in Defence Studies (Deakin); Masters Degree in Management Studies (UNSW); and Master of Environmental Management and Restoration (Charles Sturt).

ABSTRACT

Environmental Security as a Cause / Threat to Instability

Over the last 60 years up to 40% of all intrastate conflict has arisen from environmental issues. This includes control of high value resources such as minerals, oil and timber, as well as scarce resources such as water and arable land. War has led to many impacts on the environment and loss of biodiversity. With global populations continuing to rise and with the added threat multiplier of climate change, the threat of conflict to control environmental resources is likely to increase. A fragile environment that is further stressed by factors such as internationally displaced people sourcing wood and contaminating water sources are two examples that provides a negative feedback loop to both people and the environment. To effectively manage the interrelationships between security and sustainable development the global community involved with the business of contingency operations needs to acknowledge more broadly the importance of environmental peacebuilding to better support national sovereignty.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
3

PRESENTER 2

Dr. Lisa Guppy, Disaster and Conflict Coordinator, Asia-Pacific Region, United Nations Environment Programme (UNEP)

BIO

Dr. Lisa Guppy joined UN Environment in August 2018, as the Disaster and Conflict Coordinator for the Asia Pacific Region. An Australian national, Lisa moved from Canada where she was working with the United Nations University Institute for Water, Environment and Health. Previous to that, Lisa worked in disaster risk reduction, early recovery and humanitarian response in Europe, Asia, Africa and the Middle East. Lisa has a PhD focusing on the management of chronic crises from the University of Western Australia and University College London.



ABSTRACT

Environmental Peacebuilding: Defining, Managing and Measuring It in Conflict Affected Areas for Resilience Building

Environmental peacebuilding aims to engage with natural resource management and ecosystem services as part of mitigation, recovery and resilience building in conflict-affected areas. It can and is contributing positively too many peacebuilding contexts around the world. This is relevant as over the last 60 years, nearly half of all armed conflicts have been fuelled or financed by natural resources.

Peacekeeping operations can contribute to state security by introducing environmental peacebuilding initiatives at a strategic level. It can also contribute initiatives that help to build community resilience. At a community level, insecurity can be related to complex interactions between inter-community, intra-household and gendered conflict concerns. At this level, peacekeepers must consider how they measure and manage environmental peacebuilding that is linked to at least three themes: first, human security; second, natural resources – for example, water security; and third, shocks and stresses related to the environment, which are in the main driven by hydro-meteorological hazards and can be addressed through the emerging umbrella of climate security. Questions that peacekeepers should address include: is natural resource exploitation contributing to conflict, and if so, how is it being addressed? Is the peacekeeping mission itself degrading environments and potentially undermining community health and wellbeing? And how can the impact of climate on conflict be predicted, managed and monitored? Answering these questions may not only contribute to environmental peacebuilding but more secure communities in the long term.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
3

PRESENTER 3

LCDR Andrea Argirides (Royal Australian Navy), PhD, Deputy Chief Joint Effects Headquarters Joint Operations Command, Australia

BIO

Dr. Andrea Argirides is a Lieutenant Commander (LCDR) with the Royal Australian Navy Reserve, and has been serving on full time service since 2003. She has held a variety of appointments and has deployed to the Middle East on several occasions. Dr. Argirides holds six degrees with 2 Masters [Program Evaluation (Education) and Defence Studies (with a major in North Asia)]. In July 2018, she graduated with a PhD in Archaeology and Cultural Heritage from the School of Historical and Philosophical Studies, Centre for Classics and Archaeology at the University of Melbourne, Australia. Dr. Argirides is currently posted at Headquarters Joint Operations Command, Canberra Australia as a LCDR in the Joint Effects Directorate.



ABSTRACT

Heritage Under Fire: Preservation and Protection of Heritage

Heritage used as a weapon of war is big business, as demonstrated by Daesh in the past three years, notwithstanding other forms of cultural heritage (CH) destruction in places like Iraq, Afghanistan, Syria, Timbuktu, Bosnia, Lebanon and Cyprus. Obligations are clear under the Hague Convention. Benefits of protecting cultural heritage will aid alignment of coalition goals with host nation goals. Desecration or targeting of these sites will have tangible deleterious primary, secondary or tertiary operational effects.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
3

PRESENTER 4

Maj Travis Collins, Environmental Planner, Headquarters Joint Operations Command, Australia

BIO



Major Travis Collins joined the Army through the Ready Reserve scheme in 1995 and was commissioned into the Royal Australian Infantry Corps. His military career has included regimental postings that have allowed for short periods of service in Malaysia, USA and also in support of the year 2000 Sydney Olympics. After a role in Defence Recruiting, he is now posted to the Headquarters Joint Operations Environmental Cell.

As an Environmental Scientist, his civilian career has primarily been with the Department of Defence. He has lead environmental management for Exercise Talisman Sabre from 2005 – 2011, developed ADF policy for environmental management deployed operations. This also includes directing the environmental aspects of closing Australian bases in East

Timor, Solomon Islands and Afghanistan. He now runs two environmental programs in Defence's Environment Branch.

He holds a Bachelor of Science with Honours, a Graduate Certificate in Environmental Studies and a Masters of Environmental Law. He has also been awarded a Chief of Joint Operations Commendation.

ABSTRACT

Benefits of Incorporating International Standards into Contingency Operations Planning

In armed conflict, there are direct and indirect environmental protection links within international human rights law, humanitarian law, and criminal law. History has shown the environmental requirements in the laws of armed conflict and the relevance of international environmental law requires greater consideration in contingency operations planning. In considering the ways, ends and means, focus on the resilience of both the environment and the population need to be more closely weighted to determine priority setting. Contingency operations planning will benefit from a holistic approach that incorporates environmental protection into planning and leverages environmental principles and standards into response options. A contingency operations planning environmental protection toolbox is needed to aid environmental and peacebuilding outcomes.

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Northeast Asia Regional Environmental Security Forum Contingency Operations Exercise

**DAY
3**

Scenario

Trinder Island is on the edge of civil war after years of unseasonal drought. A UN Security Council backed coalition is planning a military peacekeeping operation to restore order. The operation is expected to be in place for at least 12 months.

Operational, functional and environmental drivers require environmental risks to be identified and managed to promote mission success.

Group Tasks

The tabletop exercise will utilize facilitated small group discussion to consider environmental risk in planning and conduct of contingency operations. The following points will be addressed:



- Discuss environmental legislation or relevant international agreements.
- Discuss environmentally sensitive areas.
- Identify potential military environmental risk areas.
- Identify Potential Mitigation Actions.
- Rank importance.
- Suggest improvements to standardise principles and considerations.

Outcomes

The discussions and outline environmental risk assessment will probe the challenges of achieving mission success and meeting environment and heritage obligations.

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Indo-Pacific Command

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DAY 4 - MAINTAINING AN ENVIRONMENTAL SECURITY HABIT OF DIALOGUE

FRIDAY, 21 SEPTEMBER 2018

0 9 0 0 - 0 9 0 5	Administrative Remarks <i>COL Lhundev Battsengel, Vice Director, National Defense University, Mongolia</i>					
0 9 0 5 - 0 9 3 0	Identifying, Evaluating, and Selecting Environmental Security Projects <i>COL Jeffrey Bryan, Civil Affairs, J9, U.S. Indo-Pacific Command, USA</i>					
0 9 3 0 - 1 0 0 0	Proposed Future Environmental Security Project for Mongolia <i>COL Lhundev Battsengel, Vice Director, National Defense University and Dr. Associate Professor and Lieutenant Colonel OYUNTSETSEG Luvsandash, Senior Specialist of Strategic Policy and Planning Department, Ministry of Defense, Mongolia</i>					
1 0 0 0 - 1 0 1 5	Habit of Environmental Security Dialogue Review <i>Mr. Justin Pummell, Geographer, U.S. Army Corps of Engineers, USA</i>					
1 0 1 5 - 1 0 4 5	BREAK					
1 0 4 5 - 1 1 4 5	Habit of Dialogue - Review Session					
	AUS - USA	CHN-USA	JPN - USA	KOR - USA	MNG -USA	NZL - USA
1 1 4 5 - 1 1 5 0	Australia - USA Dialogue Summary					
1 1 5 0 - 1 1 5 5	China - USA Dialogue Summary					
1 1 5 5 - 1 2 0 0	Japan - USA Dialogue Summary					
1 2 0 0 - 1 2 0 5	Korea - USA Dialogue Summary					
1 2 0 5 - 1 2 1 0	Mongolia - USA Dialogue Summary					
1 2 1 0 - 1 2 1 5	New Zealand - USA Dialogue Summary					
1 2 1 5 - 1 3 1 5	WORKING LUNCH					
1 3 1 5 - 1 3 4 5	2019 Pacific Environmental Security Forum Proposal <i>Ms. Jane Neilson, Climate Change and Security Policy, Ministry of Defence, New Zealand</i>					
1 3 4 5 - 1 4 4 5	Environmental Security Forum After-Action Review by Country <i>Moderated by Col Mike Matheis, Civil Engineer, U.S. Indo-Pacific Command, USA</i>					
1 4 4 5 - 1 5 0 0	Participant Evaluation Forms					
1 5 0 0 - 1 5 3 0	BREAK					
1 5 3 0 - 1 5 4 5	Closing Ceremony Comments by: <i>Brigadier General Thomas J. Tickner, Commander, Pacific Ocean Division, U.S. Army Corps of Engineers, USA and Mr. T. Dulamdorj, Vice Minister of Defense, Mongolia</i>					
1 5 4 5 - 1 6 0 0	Certificate and Photo Distribution					

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Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

PRESENTER 1

COL Jeffrey Bryan, Civil Affairs, J9, U.S. Indo-Pacific Command

BIO



Colonel Jeff Bryan is currently serving as the Director, Theater Civil Affairs Planning Team at U.S. Pacific Command assuming those responsibilities on 25 July 2017. His previous assignments include over 31 years of service, 28 active and 3 years of Army National Guard service.

Colonel Bryan is a native of Osceola Nebraska. He enlisted in the Nebraska Army National Guard as an Aircraft Weapons System Technician in 1986. He earned a bachelor's degree in business management and commission through ROTC from the University of Nebraska-Lincoln in June 1989. He also attended the Armor Officer Basic Course and Scout Platoon Leaders Course; Quartermaster Transition and Advanced Course; US Army Recruiter course; the Combined Arms and Services Staff School; the Command and General Staff College; Joint Planners Course;

the Civil Affairs Qualification Course, the Africa Regional Studies and the Inspector General Qualification Course.

His previous assignments include platoon leader, company executive officer and support platoon leader in 3-67 Armor deploying in support Desert Shield and Desert Storm. He commanded the North Bay Army Recruiting Company, Santa Rosa California for 30 months. Following command he was assigned to the 21st TSC, Germany serving as a supply and service officer, a battalion operations officer, culminating with command of the 574th Supply Company. Following CGSC in 2002 COL Bryan attended the Civil Affairs Officers Course and was assigned to the 96th CA battalion where he served as a detachment commander and selected for a third company command deploying to Iraq on two occasions supporting Operation Iraqi Freedom (OIF). Colonel Bryan was then transferred to Joint Base Lewis McChord, Washington where he was assigned to the 42nd MP Brigade serving as the CMO officer during an OIF deployment and brigade XO after returning to home station. Colonel Bryan was then assigned to the 62nd Medical Brigade serving as the CMO officer during its 15 month OIF deployment. Upon returning from Iraq COL Bryan commanded the I Corp Special Troops Battalion rear detachment for 17 months. While in command COL Bryan was selected to command the Special Operations Recruiting Battalion, Ft Bragg North Carolina from July 2010 to Aug 2012. COL Bryan returned to JBLM in 2012 where he was assigned as the Command Inspector General for 7th Infantry Division. COL Bryan was promoted to his current rank on 1 Jan 2014; he then served as the Eighth Army's Deputy Chief of Staff G9 - Civil Military Operations from 7 June 2014 until 2 July 2017 when he transitioned to PACOM J9 to serve as the Theater Civil Affairs Team chief.

His Awards and decorations include the Legion of Merit, the Bronze Star medal (1 OLC), the Meritorious Service Medal (5 OLCs), the Army Commendation Medal (6 OLCs), and the Army Achievement Medal (3 OLCs) in addition to the Army Parachutist Badge, Army Recruiter Badge and Air Crewman Badge.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

**DAY
4**

ABSTRACT

Identifying, Evaluating, and Selecting Environmental Security Projects

The presentation will discuss the Overseas Humanitarian Disaster and Civic Aid (OHDACA) resourcing timeline and project lifecycle. The resourcing timeline will show how USINDOPACOM receives, prioritizes, and validates all OHDACA project submissions each fiscal year. The project lifecycle will show all the different coordination and approval gates that a project must pass through to be approved, funded, executed and completed in USINDOPACOM's Overseas Humanitarian Assistance Shared Information System (OHASIS).



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

PRESENTER 2

Colonel Lhundeв BATTSENGEL, Vice Director, National Defense University, Mongolia



Colonel Lhundeв Battengel assumed the position of Vice Director of Mongolian National Defense University in 2016.

Colonel L. Battengel's previous positions include Deputy Director and Director of Policy Implementation Directorate of MOD, Defense Attache at the Mongolian Embassy to the Russian Federation. Where he was responsible for implementation of defense reform policy and equipment procurement policy of Armed Forces.

He graduated former Soviet Military Academy in Kiev specialized on armored vehicle engineer in 1987, he earned Ph.D degree at the Military University of Mongolia and he successfully accomplished Science Doctor's (Sc.D) degree at the Army Military Education and Research Center, Russian Federation in 2016. Dr. Associate Professor and Lieutenant Colonel OYUNTSETSEG Luvsandash, Senior Specialist of Strategic Policy and Planning Department, Ministry of Defense, Mongolia

ABSTRACT

Proposed Future Environmental Security Projects for Mongolia

COL Battengel will present on future environmental security projects in Mongolia that the Ministry of Defense and Mongolian Armed Forces would like to complete to advance mitigation efforts. The primary project proposal will focus on the National Defense University Shar Khad contamination site located near Ulaanbaatar. Mongolia would like to work collaboratively with U.S. Indo-Pacific Command to start cleaning up the site, managing soil contamination, clearing unexploded ordinance, and identifying solutions related to solid waste management.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

PRESENTER 3

Dr. Associate Professor and Lieutenant Colonel OYUNTSETSEG Luvsandash, Senior Specialist of Strategic Policy and Planning Department, Ministry of Defense, Mongolia

BIO



LAST NAME:	Luvsandash
GIVEN NAME:	OYUNTSETSEG
PLACE OF BIRTH:	Ulaanbaatar
RANK:	Lieutenant Colonel
ORGANIZATION:	Ministry of Defense, Ulaanbaatar, Mongolia

PRESENT POSITION: Senior Expert (Policy) of Strategic Policy & Planning Department and Coordinator, Science and Technology Council, Ministry of Defense, Mongolia

EDUCATIONAL BACKGROUND:

1985-1990	Mathematic & Physics Faculty, National University of Mongolia, Ulaanbaatar, Mongolia	Bachelor's degree. Diploma No 22688
1996-1998	Postgraduate School, Defense University of Mongolia, Ulaanbaatar, Mongolia	Master's degree. Diploma No 98023
2008-2010	Postgraduate School, National University of Mongolia, Ulaanbaatar, Mongolia	Doctor's Degree of the Computer Science (Ph.D.). Diploma No F20104073

CAREER APPOINTMENTS:

- 1990-1995, Math & Computer Science teacher, High School # 48, Ulaanbaatar;
- 1995-2004, Computer Science Instructor, Computer Training Center, Defense University of Mongolia;
- 2004-2011, Head, Computer Training Center, Defense University of Mongolia;
- 2011-Apr. 2015, Senior Expert (Policy) of Strategic Policy & Planning Department and Coordinator, Science and Technology Council, Ministry of Defense, Mongolia
- Oct., 2015-present, Senior Expert (Policy) of Strategic Policy & Planning Department and Coordinator, Science and Technology Council, Ministry of Defense, Mongolia



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

ABSTRACT

Proposed Future Environmental Security Projects for Mongolia

Opportunities for expanding cooperation between military and civil organizations in the reduction and rehabilitation of soil and groundwater pollution in areas used for military purposes

One of the world's most pressing issues is environmental security.

In recent years, population and vehicle numbers in urban areas have grown rapidly, with increasing production and services have been increasing, with an increase in air, soil and water pollution levels. The main source of soil pollution in Mongolia is mining, processing factories, sanitation, waste and air pollution in ger areas. In urban areas, bacterial contamination with sanitation facilities (latrines and pit water) is high in cities and settlements, while in the rural areas, the waste of aimag and soum centers is the main cause of soil pollution.

Formerly military sites were 30 locations with including 10,9 thousand hectares in Mongolia. According to the study, soil pollution assessment was conducted at 18 locations and the main pollutants were oil products, lead, zinc and chromium.

Soil and groundwater pollution in the land used for forsaken military sites in Mongolia can adversely affect the security of our country and Northeast Asian environment.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

PRESENTER 4

Ms. Jane Neilson, Climate Change and Security Policy, Ministry of Defence, New Zealand

BIO



Jane Neilson is an Intermediate Analyst in the Policy Branch of the New Zealand Ministry of Defence, where her primary focus is on the security and defence implications of climate change, with particular applicability to the South Pacific. She began this role in October 2017 on secondment from the New Zealand Defence Force.

Before focusing on climate change, Jane was an Asia-Pacific strategic analyst with the New Zealand Defence Force, a role she started in February 2014. Prior to her appointments with defence, she was an intern at the European Parliament in Brussels, Belgium in 2012.

Jane holds a Master of Arts with First Class Honours in Political Studies and a Bachelor of Arts with First Class Honours in Political Studies and French from the University of Auckland, New Zealand. In her free time, Jane enjoys swimming and is an international Brevet judge for New Zealand in rhythmic gymnastics - she volunteers at a local gymnastics club in Wellington.

ABSTRACT

2019 Pacific Environmental Security Forum Proposal

New Zealand's 2018 Strategic Defence Policy Statement highlights the security challenges posed by the effects of climate change, notably in the Pacific region. New Zealand will co-host the 2019 Pacific Environmental Security Forum (PESF) with USINDOPACOM, emphasising climate change and resiliency. In the presentation, New Zealand's Ministry of Defence will outline its policy work on the security impacts of climate change, and introduce key concepts for the 2019 PESF including resiliency, transformation, and multilateral partnerships.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

PRESENTER 5

Col Mike Matheis, Joint Engineer (Reserves), U.S. Indo-Pacific Command, United States of America



Colonel Michael T. Matheis is the United States Indo-Pacific Command Environmental Security Engineer at Camp Smith, Hawaii. Colonel Matheis entered active duty in 1990 as a distinguished graduate of the Air Force ROTC program. He first served as a contract programmer and Chief of Readiness, which included preparing Edwards AFB for earthquakes and Space Shuttle landings. He was then assigned to the 554th RED HORSE Squadron, executing contingency projects and planning throughout the Pacific theater. Next he led the bed down of the E-8C Joint STARS aircraft at Robins AFB and the development of Eagle Flag at the USAF Expeditionary Center.

As a Reservist, he was the 514th Civil Engineer Squadron Commander and then on staff at the pentagon, Air Mobility Command, Air Force Space Command and the Air Force Installation and Mission Support Center prior to his current assignment. He has two deployments in support of Operation ENDURING FREEDOM to Seeb AB, Oman and Kabul, Afghanistan.

As a civilian, Colonel Matheis was a construction manager based in Philadelphia. His projects included the Philadelphia airport international terminal, a 45-story high-rise condominium, and several interior renovations. In 2009 he became a federal civilian at Joint Base McGuire-Dix-Lakehurst working as a Project Manager, then Chief of Programming and later as Chief of Operations Engineering. He is currently the Deputy Director of the 787th Civil Engineer Squadron.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

CLOSING CEREMONY

Brigadier General Thomas J. Tickner, Commander, Pacific Ocean Division, U.S. Army Corps of Engineers, United States of America



On July 27, 2017, Brigadier General Thomas J. Tickner became the 33rd Commander and Division Engineer for the Pacific Ocean Division, U.S. Army Corps of Engineers.

As the Division Engineer, he is responsible for a mission that includes engineering design, construction and real estate management for the Army in Hawaii, Army and Air Force in Alaska, and for all Department of Defense Services and Agencies in Japan, the Republic of Korea, and Kwajalein Atoll, Marshall Islands. Pacific Ocean Division administers the Corps' federal water resource development program and waters and wetlands regulatory programs in Alaska, Hawaii, American Samoa,

Guam, and the Commonwealth of the Northern Mariana Islands. The Division program includes the multi-year \$10.7 billion Korea Transformation Program and the \$15.8 billion U.S.-Japan Defense Policy Review Initiative. Pacific Ocean Division also supports U.S. Pacific Command's and U.S. Army Pacific's Theater Security Cooperation strategies, Humanitarian Assistance & Disaster Response Program, and Civil-Military Emergency Preparedness with projects throughout the Indo-Asia-Pacific region.

Brigadier General Tickner has served in a variety of tactical, operational, and strategic assignments spanning a period of 27 years. He most recently served as Chief, Army Budget Liaison, in the Office of the Assistant Secretary of the Army for Financial Management and Comptroller, following his return from a one-year tour in Afghanistan, where he served as the Engineer Director for the Combined Security Transition Command-Afghanistan (CSTC-A).

In 1989, Brigadier General Tickner was commissioned a Distinguished Military Graduate through the Army Reserve Officer Training Corps (ROTC). He began his military career as a platoon leader, executive officer and assistant operations officer in the 326th Engineer Battalion, 101st Airborne Division (Air Assault) followed by an assignment to the 84th Engineer Battalion (Combat Heavy), Schofield Barracks, Hawaii, where he held company command. He served in various assignments with the Sacramento District, U.S. Army Corps of Engineers, to include a deployment to lead the Los Alamos Fire Recovery Office. Brigadier General Tickner then served as the Operations Officer and Executive Officer for the 52nd Engineer Battalion (Combat Heavy), Fort Carson, Colo., where he deployed in support of Operation Iraqi Freedom. He then served as an Engineer Branch Assignment Officer at the Army's Human Resources Command, followed by command at the Philadelphia District, U.S. Army Corps of Engineers, from June 2008 to July 2010. Brigadier General Tickner worked as the Military Assistant for the ASA (Civil Works), followed by commanding the Savannah District, U.S. Army Corps of Engineers, from July 2013 to June 2015.

Brigadier General Tickner is a native of Wayne, Pa. He received his Bachelor of Science degree in Civil Engineering from Pennsylvania State University in 1990, his Masters of Civil Engineering Degree from University of Colorado at Boulder in 1999, and a Masters of Science in National Resource Strategy from the Eisenhower School, National Defense University in 2013. He is a graduate of the Engineer



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

**DAY
4**

Officer Basic and Advanced Courses, and the U.S. Army Command and General Staff College. Brigadier General Tickner is a graduate of the Airborne, Air Assault, and Ranger courses. He is a certified Project Management Professional.

Brigadier General Tickner's military awards and decorations include the Legion of Merit, Bronze Star Medal, Defense Meritorious Service Medal, Meritorious Service Medal, the Engineer Silver de Fleury Medal, Combat Action Badge, and Army Staff Identification Badge.



Northeast Asia Regional Environmental Security Forum Biographies & Presentation Abstracts

DAY
4

CLOSING CEREMONY

Mr. Dulamdorj Togooch, Deputy Minister, Ministry of Defense, Mongolia

Mr. Dulamdorj Togooch, Deputy Minister of Defense of Mongolia was born in Arvaikheer, Uvurkhangai aimag of Mongolia on 31 August 1977.

He is married with 3 children.

EDUCATION

1995: Graduated High school in Darkhan-Uul aimag

2001: Graduated from the Ulaanbaatar Institute as a lawyer

2005: Graduated from Academy of Management with Management and Public administration specialty



PROFESSIONAL CAREER

2016-Present: Deputy Minister of Defense

2015: Executive Director at Mongol Post (State owned company)

2012-2015: Chief of National Emergency Management Agency

2012: Councilor of Deputy Minister at Government of Mongolia

2009-2012: Councilor at Secretariat of Government

2007-2009: Councilor of Mayor at Bayangol District

2005-2007: Legal councilor at Secretariat of Bayangol district

2003-2005: Deputy Chief at secretariat of Bayangol district

2001-2002: Specialist at Citizen Public Hural of Bayangol district

FOREIGN LANGUAGES

English and Russian

