

A Project on “Reducing the Risk of Nuclear Weapons Use in Northeast Asia (NU-NEA)”¹

2021-23 RECNA/PSNA/Nautilus Institute/APLN

Project Outline

September, 2021

Objective

The risk of nuclear war (that is, the risk of the attacks carried out by exploding nuclear weapons, hereafter “nuclear weapons use”) is now said to be at its highest since the end of Cold War. In particular, there is a growing concern in Northeast Asia that potential conflicts may trigger the use of nuclear weapons in the region. Both the Republic of Korea (ROK) and Japan depend heavily on the “extended nuclear deterrence” provided by the United States, but we have to be prepared for the unlikely situation where such deterrence may fail. In order to understand the risk of nuclear weapons use and to develop policies to lower that risk, we have initiated a project entitled the “Reducing the Risk of Nuclear Weapons Use in Northeast Asia (NU-NEA)”. The basic objectives of the project are to address the risk of nuclear use by answering the following questions; 1) Under what conditions might nuclear weapon be used (with or without intention), and by whom? How might such first use of nuclear weapons escalate to a larger scale of nuclear war, and in particular, which states might respond to a first nuclear use with nuclear weapons use of their own? 2) What are the possible consequences (fatalities, physical damages to key infrastructure, environmental damages, climate impacts, etc.) of potential nuclear weapon use in Northeast Asia? 3) What are the possible measures to reduce the possibility of use of nuclear weapons in the region, that is, what lessons do analyses of use cases offer for the development and deployment of policies that will help to avoid nuclear weapons use? This project is also intended to contribute to “Planetary Health” program at Nagasaki University.

Scope of Work

The project identifies three basic tasks to meet the above objectives, with each task being

¹ In order to clarify the purpose of our project for those assisting on the project and for the media and others who will review project outputs, we revised the title of the project as of August 28, 2021.

the primary focus of each of the three project years:

- 1) Development of possible nuclear use case: This first task, to be undertaken in year 1, is to develop multiple cases that involve possible nuclear weapon use in the region, including possible escalation to a larger scale of nuclear war through counterstrikes, with a focus on use cases involving the Korean Peninsula in a regional and global geo-strategic context, and thus possibly involving actual weapons use in places other than Korea.
- 2) Simulation of nuclear use cases: This second task, to be undertaken in year 2, will be to develop computer simulations and other analysis of the nuclear use cases assembled during Task 1, and to assess potential consequences of such nuclear use cases. Task 2 will address a wide range of possible consequences, providing quantitative and qualitative results of impacts including fatalities, environmental damages, and physical damages, and will prefigure possible climate impacts of nuclear use, which will be addressed in year 3.
- 3) Development of policy recommendations to reduce the risk of nuclear war in Northeast Asia: Based on the results of Task 1 and 2, Task 3 will focus on to assessing current nuclear policies in the region and developing policy measures to reduce the risks that nuclear weapons will be used in the region.

Organization

The Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA) and the Panel on Peace and Security of Northeast Asia (PSNA), with the cooperation of Nautilus Institute and the Asia Pacific Leadership Network for Nuclear non-proliferation and Disarmament (APLN), are hosting this project. RECNA, NI and APLN have set up a Steering Committee as a project management organization. PSNA will serve as an Advisory Group to the Project, and key members of PSNA will be involved in each task. A Consultative Group of experts in various disciplines related to the project has also been assembled to provide input to and review of use cases, with some Consultative Group members also commissioned to prepare background papers to inform the development and analysis of nuclear weapons use cases.

Key members of the project team include:

Peter Hayes (Director, Nautilus Institute)

Shata Shetty (Executive Director, APLN)

David von Hippel (Senior Associate, Nautilus Institute)

Steve Freedkin (Senior Staff, Nautilus Institute)

Tatsujiro Suzuki (RECNA), Fumihiko Yoshida (RECNA)

Project Schedule

NU-NEA is a three-year project spanning FY 2021 to FY 2023 (approximately April 2021-March 2023).

Year 1 (April 2021- March 2022)

- May 2021 Establishing project team, contracts signed
- June-August Development of use cases,
 Review of use cases.
- Late September Draft report of Task 1 (Nuclear Weapons Use Cases developed)
 circulated among team members
 Review of Draft Task 1 report
- October On-line PSNA Workshop, October 8(Fri), 9 (Sat) and 12 (Mon):
 Presentation of Revised Draft Task 1 Report
 Identify key parameters for simulation in Year 2, and begin to plan
 Year 2 activities
 Discuss initial and provisional potential policy implications of the
 use cases
- December Finalize Report of Task 1
- January Status report of Task 2 published
- March (or before) Publication of the papers in the Journal for Peace and Nuclear
 Disarmament (J-PAND)

Year 2: Task 2 Ongoing analysis and publication of Task 2 Final Report.

Year 3: Task 3 Ongoing analysis and publication of Task 3 Final Report.

Outputs

The project will publish status reports by the end of each FY (the end of March). In addition to these report by the project, about 12 working papers and input memoranda are to be published as appropriate during the course of the project. We plan to submit working papers and Project Reports for publication in J-PAND.