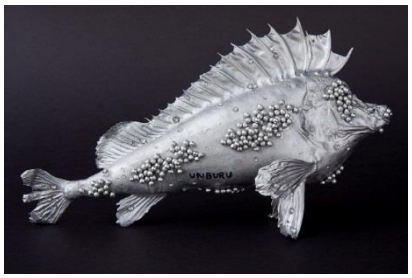
E-PARCC
COLLABORATIVE GOVERNANCE INITIATIVE
Syracuse University
Maxwell School of Citizenship and Public Affairs
Program for the Advancement of Research on Conflict and Collaboration

SILVER WORLD: THE ROLE OF SCIENCE IN INTERNATIONAL POLICY MAKING

TEACHING NOTE



Silver World is a teaching simulation on environmental policy that provides an enhanced and guided experience on interest-based negotiations and collaborative decision making. The simulation is modeled after the ongoing United Nations Environmental Program Intergovernmental Negotiations on Mercury. This simulation is designed as an international convention and features ten interesting parties, representing eight countries or groups of countries, and two non-governmental organizations. It has a built-in flexibility to accommodate participants from different backgrounds and educational levels.

This simulation was written by Svetoslava Todorova, Professor of Practice at the College of Engineering and Computer Science at Syracuse University, and was awarded Honorable Mention in E-PARCC's 2015-2016 Competition for Collaborative Public Management, Governance, and Problem-Solving Teaching Materials. E-PARCC is a project of the Collaborative Governance Initiative, Program for the Advancement of Research on Conflict and Collaboration- a research, teaching and practice center within Syracuse University's Maxwell School of Citizenship and Public Affairs. https://www.maxwell.syr.edu/parcc_eparcc.aspx.

QUICK FACTS ABOUT THE SIMULATION

Parties in the Convention: Representatives from eight (8) interested parties (The Parties) include: African Group, Canada, China, European Union, The Group of Latin American and Caribbean Countries (GRULAC), South Asian Countries, Middle Eastern Countries, United States, and two (2) non-governmental organizations (NGOs) - the Inuit Circumpolar Countries (ICC) and the International Council for Science (ICS) participate in the convention. The Parties have agreed that NGOs can attend as observers and as such may speak and present information at the meeting. However, only The Parties have the authority to vote and form the text.

Number of Participants: There are a total of eleven (11) roles and the participants can be multiples of 10 or 11. If the number of participants is 21, for instance, two (2) participants will represent each party and the group will be led by one Chair. If the number of the participants is 22, for instance, two separate negotiation groups can be formed.

The Chair: A person not assigned to any of the interested Parties or NGOs serves as a Chair of the Negotiations Committee. If the number of participants is limited, the Chair of the Negotiating Committee can be one of the participants, preferably a representative from one of the NGOs or an external person (a Teaching Assistant). Alternatively, The Chair can be selected from within the Parties of the Convention.[1]

Time for Different Delivery Modes: Each of the delivery modes listed below culminates in a 2-day simulation of Intergovernmental Negotiations. Allow for least 2 hours of debriefing at the end of the simulation.

- Long course with research component: The course is conducted over 5 weeks, during a regular semester. Allow 3 weeks for the research component and 2 weeks for participants to learn about interest-based negotiations and collaborative decision making processes.
- Short course with science-policy focus: The course is conducted over 5 days. During the first 3 days, participants learn about global mercury cycling and consequence of mercury contamination, and are given an introduction of interest-based negotiations.
- Short skill-learning course: The course is conducted over 5 days. During the first 2 and a half days, participants learn about interest-based negotiations and collaborative decision making processes. The instructor provides background materials on the global mercury issues allowing a half-day for participants to review the materials.

[1] Very often, without specifically assigning a person to the role of the Chair, a group leader emerges and takes the responsibilities of the Chair.

SIMULATION LOGISTICS

Background Preparation with a Research Component: The participants will undertake a self-guided learning about the mercury issue on a global scale as well as the mercury issues in their assigned country or region. The background information, which participants obtain from credible sources (UNEP reports, scientific reports and publications, statements from governmental and non-governmental organizations, etc.), will prepare them for the negotiations. After researching about the mercury contamination at local and global scales, the participants should have a general understanding of the distributing and cycling of mercury between water, sediments, and biota; products containing mercury; processes and technologies that are using mercury; the impact of mercury on the biotic environment; and the consequences of mercury exposure to human health. Each Party and NGO issues a report, which is made available to all participants in the convention.

Background Preparation without a Research Component: When *Silver World* is conducted without a research component and the participants have little knowledge about mercury contamination, the instructor should provide background materials for the participants. Prior to distributing the simulation materials. Allow sufficient time for participants to review the materials. Some suggested reading materials are provided below:

- United Nations Environmental Program (UNEP). 2013. Global Mercury Assessment: Sources, Emissions, Releases and Environmental Transport. UNEP Chemicals Branch, Geneva, Switzerland. http://www.unep.org/hazardoussubstances/Mercury/Informationmaterials/ReportsandPublications/tabid/3593/Default.aspx
- Chen, C.Y., C.T. Driscoll, K.F. Lambert, R.P. Mason, L.R. Rardin, C.V. Schmitt, N.S. Serrell, and E.M. Sunderland. 2012. Sources to Seafood: Mercury Pollution in the Marine Environment. Hanover, NH: Toxic Metals Superfund Research Program, Dartmouth College.
- Arctic Monitoring and Assessment Programme (AMAP). 2011. AMAP Assessment 2011: Mercury in the Arctic. Arctic Monitoring and Assessment Programme, Oslo, Norway. http://www.amap.no/documents/doc/amap-assessment-2011-mercury-in-the-arctic/90
- Takizawa, Y. Minamata disease in Japan. In Environmental Toxicology and Human Health, (Ed.), Vol. 1, 2009.

Background Preparation on Interest-Based Negotiating: Participants are introduced to interest-based negotiations and supplemental reading is assigned. Some suggested reading materials are provided below:

- Ansell, C. and Gash, A. 2008. Collaborative governance in theory and practice. Journal of Public Administration Research and Theory. 18 (4): 543-571.
- Susskind, L. and Islam, S. 2012. Water diplomacy: Creating value and building trust in transboundary water negotiations. Science & Diplomacy, vol. 1, No. 3. http://www.sciencediplomacy.org/perspective/2012/water-diplomacy.
- United Nations Environmental Program. 2007. Guide for Negotiators of Multilateral Environmental Agreements. UNEP Division of Environmental Law and Conventions, Nairobi, Kenya.

Simulation Flow: The first day of the negotiations starts with an official opening of the plenary session, adoption of the agenda, and opening statements from The Parties and the NGOs. One to 1.5 hours should be allowed for the plenary session. The groups move into the negotiation rooms and establish ground rules (limit the discussion of the ground rules to 30 minutes) and discussions of the main issues. On the second day, the Parties discuss the regulation of each of the products and processes they agreed on the first day and a text is drafted.

Participants should be encouraged to have coffee/snack breaks. Breaks can release tension in the negotiating room. They also allow for the unofficial discussion and formation of ally groups.

Signatures: As a binding treaty, the text should bare the signatures of the Parties of the Convention. Only the representatives of the countries or groups of countries that are satisfied with the outcome of the Convention should sign the treaty. The goal is to convince as many countries as possible to bind to the treaty and to sign it!

Instructor's Role: The goal of the *Silver World* simulation is to immerse students in the issue of mercury pollution. During the two-day simulation, some of the participants may become emotionally involved and the simulation may break from the planned "linear" progression. Contrarily, the participants may not take the simulation seriously and thus rush through the exercise. In this case, the participants will not be able to experience and practice negotiation skills. It is important that the instructor monitors the progress of the simulation and provides feedback and advice, if necessary, to keep the group(s) on task. The instructor may intervene by providing feedback to a particular Party in the convention or may stop the simulation to remind the participants about the purpose of the exercise. If needed, the instructor or the teaching assistant(s) may take the role of external mediator.

Handouts to the Participants: The evening before the negotiations or 30 minutes before the start of the simulation, participants receive a package, which contains the following materials:

Each Party or NGO is to receive:

- General Information to All Participants at the Intergovernmental Negotiations Committee
- Private Information (specific for each Party or NGO)
- A Template of the Treaty Text
- A Country Tab

The Chair of the Intergovernmental Negotiations Committee receives:

- General Information to All Participants at the Intergovernmental Negotiations Committee

- Private Information (specific for each Party or NGO)
- A Template of the Agenda
- A Template of the Treaty Text

Participants are exclusively asked not to share their confidential information with representatives from other Parties or NGOs. Prior to the negotiations, participants can meet and discuss strategies only with participants from their team.

Room Arrangement: The opening plenary session is held in an auditorium. In addition, negotiation room(s) must be provided. In order to allow for roundtable discussion, tables should be arranged together to create a single large table with participants seated around the table or in a hollow square with chairs along the outside facing the empty center. The room should be equipped with a computer, a display, and a large flip chart. Multiple small rooms should be made available in case the participants decide to break into small groups.

Deliverables: To maximize participants' learning experience and assure long-lasting knowledge, the following deliverables are suggested:

- Research Report (if a research component is selected): Each Party and NGO research the issue of global mercury pollution and prepare a minimum 5-page, single-spaced, size 12-font report concerning the global consequences of mercury with special focus on the region or country the group is representing. The Party reports on products and industries in which mercury is used and at minimum address the major local and global sources of mercury. The report of each participating Party and NGO is available upon request to the other Parties in the convention.
- Opening Statement: Each Party and NGO prepare an opening statement (one, single-spaced page, size 12 font), which provides the general understanding of the Party's stance. This statement may include their understanding of mercury science, whether the Party believes there is sufficient evidence that mercury is of global concern, its' opinion on the scope of the international efforts (what topics/sectors the treaty needs to address), and whether the Party is a significant contributor to the global mercury pool. The statement serves as a starting point of the negotiations and will be presented during the opening plenary session.
- Draft Treaty Text: Each simulation group submits a draft treaty text following the provided guidelines. The form and content of international treaty texts is very specific. The instructor provides a template to the participants.

Variation of the Simulation: *Silver World* can be implemented as a teaching module in a class or run as an immersive experience. The immersive option can also vary in time depending on the background of the participants. The simulation is written in a way to accommodate participants

without prior experience in negotiations or knowledge in environmental consequences of mercury pollution. The simulation can be modified and adapted for other international agreements, such as the Stockholm Convention for Persistent Organic Pollutants or the UN Framework Convention on Climate Change.

The 5-week module is suitable for introductory classes in biogeochemistry, environmental science, environmental engineering, classes that teach interest-based negotiation skills, environmental decision making, or international environmental policy; interdisciplinary classes and classes cross-listed between science and policy departments may also apply. The 5-week module allows participants to conduct in-depth research on the topic, usually working in groups. A final research report is submitted. Participants engage in a 2-day simulation of international mercury negotiations.

The immersive experience is suitable for short courses and courses which aim to provide experience and practice of negotiation skills. This exercise can be administered in several ways to fit the objectives of the short course.

- Short course with science-policy focus: *Silver World* is conducted over five days, allowing participants to learn about global mercury cycling and consequence of mercury contamination during the first three days. Participants are given a brief introduction of interest-based negotiations. The immersive experience culminates in a two-day simulation of international mercury negotiations.
- Short skill-learning course: *Silver World* is conducted over five days. During the first two and a half days, participants learn about interest-based negotiations and collaborative decision making processes. The instructor provides background materials on the global mercury issues allowing a half-day for participants to review the materials. The course concludes with a two-day simulation of international mercury negotiations.
- Two-day simulation: *Silver World* is conducted as a stand-alone, 2-day simulation for participants without prior knowledge in environmental issues. The instructor provides background materials on the science of mercury and consequences of global mercury contamination. Allow a half-day for participants to review the materials.
- The simulation can be adapted for other existing international environmental agreements (the UN Framework Convention on Climate Change or the Stockholm Convention for Persistent Organic Pollutants) or for any future environmental conventions. For instance, UNEP Chemicals Branch has been collecting and reviewing scientific information about lead (Pb) and cadmium (Cd) and the consequences of their long-range transport.

Debriefing: It is important to have a debriefing session at the end of the simulation exercise for participants to share the lessons they learned. The debriefing session starts as participants fill a debriefing form, followed by an open discussion. The instructor leads the debriefing discussion,

encouraging everyone to participate. The instructor synthesizes the results of the debriefing session (written answers and discussion) and circulates them among the participants.

Sample debriefing questions are provided below. The instructor may include additional questions, specific to the simulation type.

- Write your opinion about the negotiation process. How did you anticipate the negotiations would run? How do you see the negotiation process now?
- You had a very realistic role in the process. What do you think was the most difficult point of the negotiations? How did you achieve an agreement on the assigned topics? If you did not achieve an agreement, what do you think prevented you?
- You started the negotiations with the clear goal to protect human health and the environment. Do you think you achieved it? To what extent do you think money interfered with the idealistic goal? To what extent do you think politics interfered with the idealistic goal?
- Did you have enough time to accomplish your tasks and to have a thorough discussion on them? If you did not have enough time, did your group have to compromise and reach a quick decision, rather than engage in interest-based or collaborative discussion?
- If you were to have the opportunity to do this simulation again, could you have taken a different approach and how could you be more efficient?
- Two non-governmental organizations participated in the simulation. From your perspective, did they play an important role in the simulation and did they alter the outcome of the treaty? What helped them succeed? What prevented them from succeeding?