

# Science Diplomacy and Systems Analysis

## Highlights of current science diplomacy activities at IIASA

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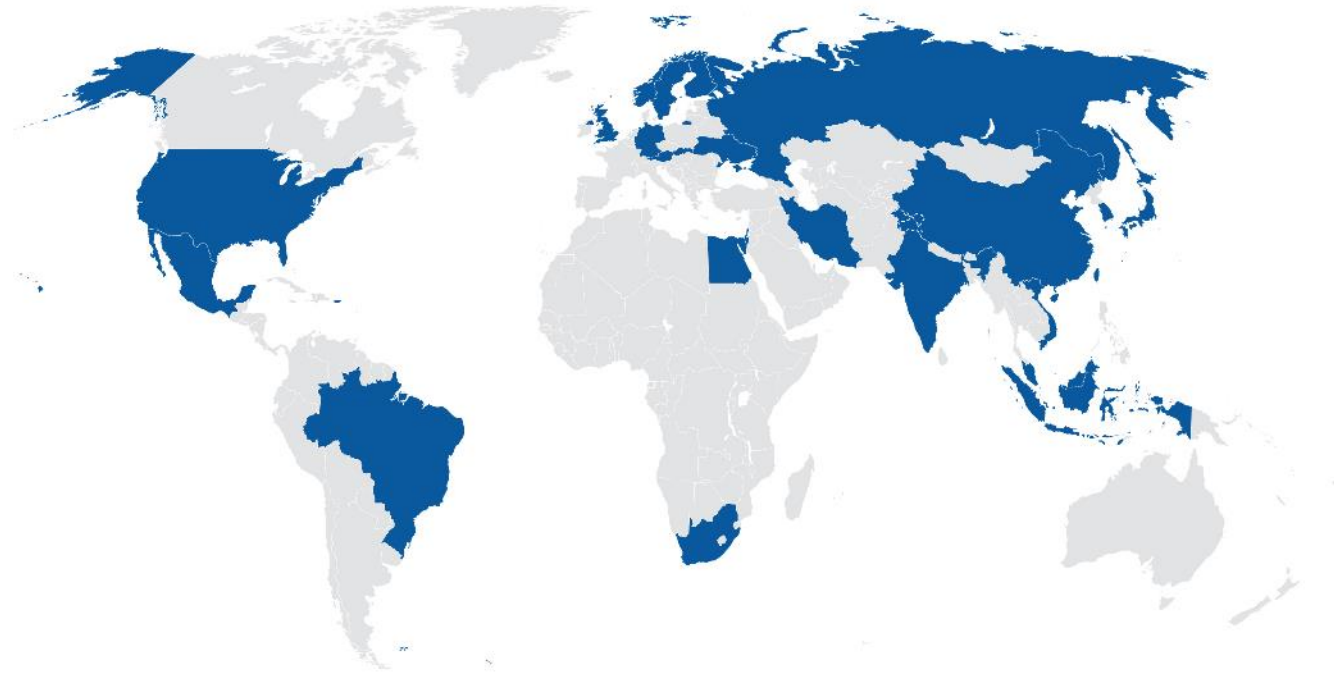


## Science Diplomacy: Royal Society/AAAS Definition

- **Diplomacy for Science**  
(= Nations supporting international science endeavors)
- **Science for Diplomacy**  
(= Science helping to build bridges between nations)
- **Science in Diplomacy**  
(= Science providing advice to foreign policy,  
this being a subset of “science for policy” more generally)

**IIASA is involved in all three!**

# Diplomacy for Science: IIASA Members 2021



- Austria
- Brazil
- China
- Egypt
- Finland
- Germany
- India
- Indonesia
- Iran
- Israel
- Japan
- Jordan (Prospective)
- Korea, Republic of
- Malaysia (Observer)
- Mexico (Observer)
- Norway
- Russia
- Slovak Republic
- South Africa
- Sweden
- UK
- Ukraine
- USA
- Vietnam



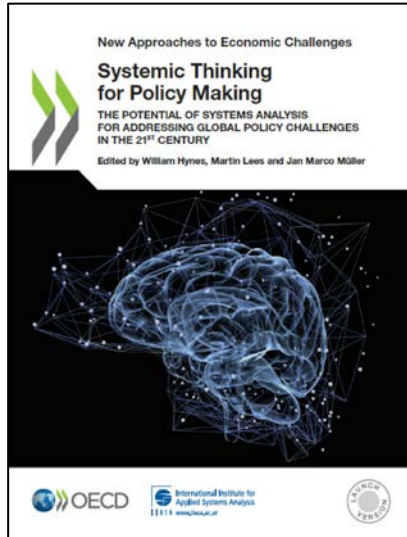
E.g. visits of Austrian FM (2017-19); Korean, Mexican, Vietnamese, and UK Ambassadors to IIASA

# Science for Diplomacy: IIASA as a bridge builder

- **IIASA as a convener and bridge builder:**  
Challenges and Opportunities of Economic Integration Within a Wider European and Eurasian Space
- **In times of the deepest crisis** of the political relations **between the EU and Russia**, IIASA provides a **neutral and depoliticized platform** to allow experts and policy makers in the area of **international trade** as well as representatives of businesses to meet and discuss opportunities and barriers associated with closer economic relations in the region.



# IIASA partners with OECD to provide systems thinking approaches and methods for international policy making



The value of including systems thinking as part of international decision making process in (among others):

- Developing new approaches to economic challenges to enhance understanding of the complexity of the global economy, society and environment.
- Analysis of risk and resilience, and the recognition of uncertainty in the management of complexity.
- Investigation of connections between climate, energy and international finance.

# Science in Diplomacy: IIASA research contributes to international climate change agreements

## IIASA Research

Significant research into how to achieve the **1.5°C target** along with 12 IIASA authors contributing to the IPCC Special Report on Global Warming of 1.5°C. The report continues to influence international climate change negotiations today.

IIASA research into **novel disaster and climate risk insurance instruments** have helped inform the development of the Loss and Damage Mechanism to support developing countries that are particularly vulnerable to the adverse effects of climate change.

## UN Climate Change Conferences



Paris Climate Change Agreement to limit temperature increase to 1.5°C



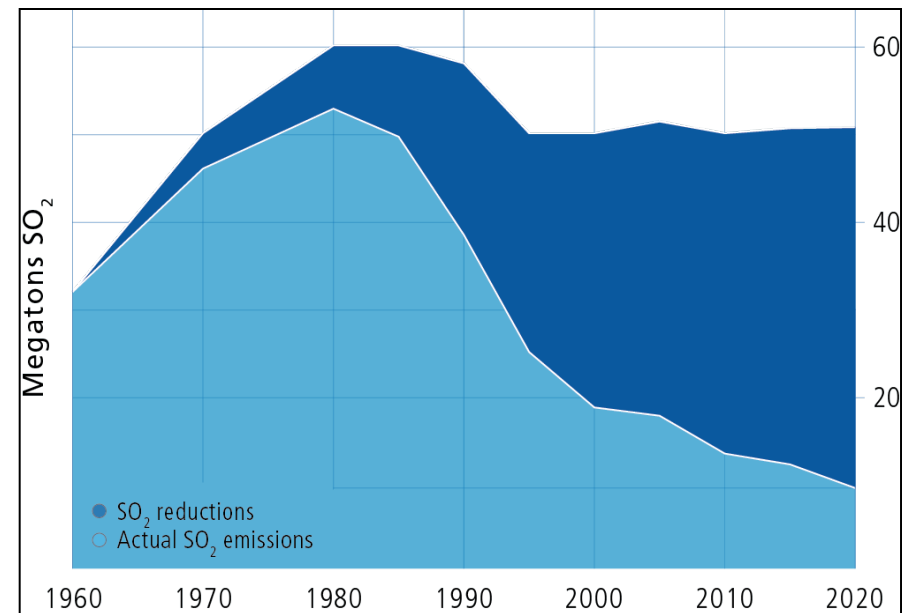
Warsaw International Mechanism for Loss and Damage

# Science in and for Diplomacy: IIASA as a provider of scientific options that help countries forge international agreements to tackle transboundary air pollution

IIASA provides evidence and policy options to decision makers and international negotiators in Europe to develop international environmental treaties that have greatly reduced multiple air pollutants (see graph for SO<sub>2</sub>)

- Convention on Long-range Transboundary Air Pollution of the United Nations Economic Commission for Europe (51 countries)
- EU National Emissions Ceiling Directive (28 countries)
- EU Thematic Clean Air Strategy (28 countries)

Recommended pollution reduction measures are based on the IIASA GAINS model and help minimize the negative health and environmental impacts to benefit all of Europe collectively.



# Science in and for Diplomacy: IIASA research shows international cooperation to tackle food, water, and energy issues in a transboundary river basin increases the availability of food, water and energy for all

The Integrated Solutions for Water, Energy, and Land project (ISWEL) combines **systems analysis** to explore integrated solutions for four sustainable development goals

with **extensive stakeholder engagement and dialogues** to identify how to meet water, energy and land demands in large transboundary basins such as the **Indus basin**





# Supporting Science Diplomacy: IIASA co-organized a global meeting of science advisors in ministries of foreign affairs (FMSTAN)



25-26 November 2019

# IIASA creates structures for science diplomacy: Big Research Infrastructures for Diplomacy and Global Engagement through Science (BRIDGES) network

- 12 major international research organizations;
- no fees or legal commitment of members;
- community of science diplomacy practitioners.

BRIDGES serves as a platform for:

- sharing ideas and best practices;
- development of common strategies, approaches, and activities;
- helping each other and benefiting from each one's strengths;
- speaking with a united voice on relevant topical issues.

Most recent – BRIDGES session at ESOF-2020 (September 2020) and virtual Third BRIDGES Meeting (November 2020)



# IIASA Research Strategy (2021-2030)



## Science Diplomacy is a key part of new strategy :

- “We build trust and help divergent views to jointly confront problems of global interest by engaging with decision makers, providing scientific insights for policy making, developing cooperative strategies and, thereby, **strengthening bilateral and multilateral relations** for sustainable development.
- **Strategic Objective:** Provide long-term **scientific support and infrastructure as a neutral scientific broker on emerging global challenges** that can only be addressed through cooperation and collaborative work.”

# Thank you

IIASA Charter (1972):

*“Convinced that science and technology, if wisely directed, can benefit all mankind,*

*Believing that international co-operation between national institutions promotes co-operation between nations and so the economic and social progress of peoples;*

*HEREBY RESOLVE TO ESTABLISH AN INTERNATIONAL INSTITUTE FOR APPLIED SYSTEMS ANALYSIS”*