IAI Science Technology & Policy (STeP) Fellowship
Pilot Program
2020-2024

Professional Development Work Plan

Introduction:

Modeled after the highly successful [American Association for the Advancement of Science (AAAS) Science & Technology Policy Fellowship](#), an Associate of the IAI, STeP is the first Science, Technology, Policy Fellows program implemented at the national level in Latin America and the Caribbean. Core training activities are centered on three initial pillars of **Science Diplomacy, Communication, and Leadership** and creating an Inter-American Network for shared capacity building and science-policy experiences among the Fellows, host institutions, and IAI member country stakeholders. The IAI STeP Fellowship Pilot Program is working with the first two cohorts of Fellows in Argentina and Mexico while actively looking to expand and onboard new cohorts from the region in 2021-2024. The IAI is in discussions with several countries interested in the STeP program including Brazil, Colombia, Costa Rica, Jamaica, Panama, Paraguay, Peru, Uruguay and Trinidad and Tobago to expand cohorts in 2021. To ensure program implementation success, a number of strategic partnership agreements *are already in place or underway*, including: American Association for the Advancement of Science (AAAS), [Mitacs Canada](#), and the [International Network for Government Science Advice](#) (INGSA).

The STeP Pilot Program aims to create the initial platform for professional development activities and networking opportunities with international partners and public and private sector stakeholders. Policy institutions and decision-makers are not accustomed to working with scientists or seeking their advice. There is a need to create a common language, build relationships, and create mechanisms to bridge science and policy communities. At the same time, most academic programs do not prepare scientists to navigate and work in the world of policymaking nor are they provided with the soft skills that are increasingly necessary to apply and advance science in policy and in society.   Through a broad network of relationships, the IAI will bring expert material to STeP Fellows and Host Institutions with the challenge of **making content relevant and contextual to a large and diverse region like LAC**. The IAI will design training modules to be enriching and fit the workflow of Fellows and will find dynamic ways to integrate Fellow supervisors to support long-term institutional capacities. For these reasons, and to increase the impact and benefit of STeP, IAI and Training Partners will identify opportunities in each of the STeP pillars, Communication, Science Diplomacy and Leadership, to develop and implement a **Training of Trainers (ToT) model.**   Fellows and host institution supervisors will work with technical experts/master trainers to build a pool of competent trainers in LAC.

The IAI will integrate professional development best practices to ensure effective knowledge transfer. This means core training activities are built on principles of peer-collaboration, local/regional case studies, mentoring, and technical assistance. Strategic focus areas within each training pillar are based on real needs of LAC scientists and policymakers and aim at generating visible results.   Monitoring and evaluation of pilot program impact should continuously measure professional development outcomes or key performance indicators to bridge the gap between project activities and high-level development objectives. As an engagement strategy, stakeholder consultation is embedded in the professional development work plan as the IAI program team will work with key partners and trainers to establish evaluation questions and performance indicators. Results will be analyzed, interpreted, and shared with key stakeholders to inform strategies moving beyond the pilot phase. Networking events (see Networking Plan below) will be designed to provide follow-up support to strengthen the uptake and skill level of Fellows and supervisors resulting in communities of practice around shared regional challenges in global change and sustainable development.

Professional Development Specific Objective: Develop and provide a two-year professional development program of core training activities tailored for scientists and policy makers working in Latin America and the Caribbean in the pillar areas of Communication, Science Diplomacy, and Leadership.

Training Pillar Core Activities 2020-2024:

Goal A. Develop in collaboration with Key Partners or Trainers one training activity/2 years in each of the following strategic focus areas:

Pillar	Aim	Core Training Activity
Science Diplomacy	Learn the fundamentals of science policy, advisement, and diplomacy as well as how the three are inherently interconnected and applied in LAC.	Science Diplomacy in LAC Introduction
		Science Advisement & Policy in LAC Introduction
		Series: Application of Science Diplomacy in LAC
Communication	Learn the fundamental skills of professional, digital, and science communication and actively practice techniques for credible, clear, and consistent communication that is easily understood by targeted audiences of non-specialists.	Introduction to Science Communication for Scientists
		Science Communication Workshop: How to Write an Effective Policy Brief
		#SciComm Digital Communication
		Professional Communication
Leadership	Build skills using a transdisciplinary approach to work collaboratively with diverse stakeholders to inform policy makers and co-create strategic visions for problem-solving in global change and sustainable development.	Leadership for Sustainable Development/Global Change Introduction
		Discussion Series/Panel: Scientific Leadership in LAC

Goal B: Identify with Key Partners or Trainers specific learning objectives, evaluation questions and indicators (KPI) for core training activities in each STeP pillar.

I. Communication

Aim: STeP fellows (and Host organization supervisors) will learn the fundamental skills of professional, digital, and science communication and actively practice techniques for credible, clear, and consistent communication that is easily understood by a target audience of non-specialists.

Core Training Activity	Audience	Specific Learning Objectives	Evaluation Questions/KPI
Introduction to Science Communication for Scientists	virtual in 2020 for Fellows + Supervisors	1. How to read and engage with an audience (specifically non-academic) 2. Improve public speaking (storytelling): be more identifiable, create analogies and personal stories, lose the lingo, generate curiosity, lead with impact and value 3. Develop and practice your personal "elevator speech/pitch" and how to promote yourself and the value of your science.	1. Elevator pitch/introduction presentation after training will be recorded and compared to recorded presentation from STeP Launch Event. Build out a participatory activity where mentors/supervisors provide feedback or score pitches/intros. 2. Fellow and Supervisor will prepare and share a Bio and Work Plan appropriate for non-academic audiences which will serve for any future speaking events, conferences etc.
Science Communication Workshop: How to Write an Effective Policy Brief	virtual in 2020 for Fellows + Supervisors	1. Learn the basic components of a policy brief and techniques for effective writing, including regional specific examples. 2. Tips for distribution and engagement.	After completing training activity Fellows will draft a brief and distribution strategy to implement as part of their impact/work plan. Compare initial policy briefs of fellows with post-training briefs.
#SciComm Digital Communication	Fellows + Supervisors + Expanded Audience	1. Learn to curate digestible, real time content and build community. 2. How to become an influencer on Twitter, Instagram, Facebook, LinkedIn.	To be determined
Professional Communication	virtual in 2020 for Fellows + Supervisors	1. Build skills for communicating in the workplace or at professional events, meetings, conferences, etc. (i.e. conflict resolution, facilitation, negotiation). 2. How to run/chair a meeting. 3. How to coordinate/lead a team.	1. Capacity scorecard to measure abilities before and after training.

II. Science Diplomacy

Aim: STeP Fellows will learn the fundamentals of science policy, advisement, and diplomacy as well as how the three are inherently interconnected and applied in LAC.

Core Training Activity	Audience	Specific Learning Objectives	Evaluation Questions/KPI
Science Diplomacy in LAC Introduction	virtual in 2020 for Fellows + Supervisors	1. What are the different approaches to Science Diplomacy (national, regional, thematic)? 2. What are the skills needed for effective science diplomacy? 3. Understand the three uses of science diplomacy: a) Science is seen as a tool to inform foreign policy objectives with scientific advice. b) Science to facilitate international science cooperation, which involves the participation of international stakeholders to develop large-scale projects with larger infrastructure in cases where costs and risks go beyond any one country's abilities. Science that supports international, multilateral environmental agreements, conventions, and frameworks c) Science for diplomacy and describes the use of science cooperation to improve international relations between countries.	To be determined
Science Advisement & Policy in LAC Introduction	virtual in 2020 for Fellows + Supervisors	1. Develop a clear understanding of the definitions of science policy, advisement and diplomacy. 2. Understand who are the key stakeholders? What is the science-policy-society interface and why is it so important?	To be determined
Series: Application of Science Diplomacy in LAC	virtual in 2020 for Fellows + Supervisors + expanded audience (decision/policy makers)	1. Create awareness through a variety of case studies the practical application of Science Diplomacy in LAC. 2. Share lessons learned from each case study. 3. Understand the synergies between science policy/advisement/diplomacy.	To be determined

III. Leadership

Aim: STeP fellows (and Host organization supervisors) will build skills using a transdisciplinary (TD) approach to work collaboratively with diverse stakeholders *to inform* policy makers and co-create strategic visions for problem-solving in global change and sustainable development. TD is a novel approach to research and training that is problem driven and solutions oriented, integrating knowledge, tools, and ways of thinking from multiple disciplines and societal actors (including decision makers) to provide useful and actionable information for end users (policy makers, local communities, indigenous peoples, stakeholders, etc.). However, there is a marked lack of consensus, if not understanding, on what constitutes TD research, particularly in the context of Latin America and the Caribbean (LAC). The IAI aims to contribute to this body of knowledge and practice through TD training and collaborative development of training materials tailored for the region.

Core Training Activity	Audience	Specific Learning Objectives	Evaluation Questions/KPI
Leadership for Sustainable Development/ Global Change Introduction	Fellows + Supervisors	1. Understand the significance of the Transdisciplinary Approach including best practices and methods based on lessons learned from previous global change research and policy applications. 2. Learn how to strategize, empower, engage, manage teams, delegate work, motivate and inspire, and encourage collaboration for global change. 4. Learn the foundations of leadership for global change: Innovation and design thinking, Barriers and opportunities for social change.	To be determined
Discussion Series/Panel: Scientific Leadership in LAC	Fellows + Supervisors + Expanded Audience	Learn from a panel of scientists/policymakers in leadership positions in Latin America & Caribbean their candid experiences in both science and policy worlds.	To be determined

Goal C: Develop in collaboration with key partner(s)/trainers background/introductory materials, and potential activities to share with attendees before each training event. Maintain materials in a cloud-based platform for easy reference post training (necessary infrastructure for developing Training of Trainers modules). See Draft Reference Library

Networking Work Plan

Introduction

The IAI will create an inter-American network of Fellows, host institutions and countries and IAI alumni for several purposes as the power of the fellows' network cannot be overstated:

1. Encourage multinational collaborations among host organizations and countries through the work of the fellows and supervisors.
2. Fellows career development: From moral support to career pathways, having a network of peers to share experiences and lessons learned and to find mentors, enhances the longevity and impact of STeP. Most importantly, the network enhances the Fellows' and host institution's experience and endures long after their fellowship ends.
3. Create an Impact Database of STeP Alumni, supervisors, mentors, experts to sort by areas of expertise and track career development and work plan impacts and outcomes.

The STeP Fellowship Program will develop the tools and the human talent needed to promote best practices and inform policies for sustainability and global change based on scientific evidence. Joint training activities planned with strategic partners from North America looking to strengthen their connection with Latin America & Caribbean will forge additional personal and institutional network and capacity necessary to help address future transboundary, regional and global challenges.

Networking Specific Objective: Create an Inter-American networking platform for Fellows, host institutions and countries, international partners, and IAI alumni to exchange lessons learned and share experiences and best practices in science to policy and policy to science.

Aims:

- Foster opportunities for multinational collaboration among host organizations and countries to collaborate on transboundary and regional challenges and priorities with the support of the work of the Fellows.
- Broaden STeP Fellow career options with experience in diverse sectors beyond academia.
- Build opportunities to practice career/professional networking skills through formal training and informal activities for STeP Fellows cohorts to interact with each other and peer networks of key partner organizations (e.g. Inter-American Science Policy Network (peer network), AAAS, Mitacs and eventual STeP Alumni).
- Increase awareness of the value of science advice in the policy/decision making community through shared educational experiences that promote engagement, build trust, credibility, and relationships.

Goals:

A. Host and/ or attend at least 1 joint training event with international partners (Mitacs, Future Earth, AAAS)
B. Host at least formal activity every 3 months between fellowship cohorts or among all cohorts, with the participation of supervisors.
C. Co-host with Fellows at least 1 informal activity / 3 months between fellowship cohorts (e.g. Journal club, happy hour, Ask a Former Fellow) with the goal that this sort of activity would eventually be fellow-led.
D. Open participation, when applicable, for a portion of the core training activities in Science Diplomacy, Communication, and Leadership to include supervisors, mentors, and an expanded audience.
E. Build joint exercises and activities related to each training pillar that promote collaboration between fellows and supervisors.

See Professional Development & Networking Timeline (Draft)