

Synergies of Planetary Health Research Initiative

2020 Annual Report

Dahdaleh Institute for Global Health Research

York University

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Introduction

The Synergies of Planetary Health Research Initiative is a collaborative partnership between researchers integrating critical perspectives and evidence-based research to create solutions to global environmental and social problems, and to maximize synergies between the 17 UN Sustainable Development Goals. We leverage our expertise in global climate governance, and our network of specialists and practitioners, to probe opportunities for broadening climate action toward stronger governance linkages between climate, biodiversity, and health targets on the 2030 horizon.

Since its launch in January 2020, the Synergies of Planetary Health Research Initiative built its foundations and produced its outputs while simultaneously learning to build adaptability and resilience against the disruptive effects of the COVID-19 pandemic. This report outlines a summary of our activities undertaken in 2020.



Background

Based at the Dahdaleh Institute for Global Health Research at York University, the Synergies of Planetary Health Research Initiative is a collaboration with researchers from the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE); the Global Center on Adaptation (GCA); the University of São Paulo, and the Climate Cooperatives Initiatives Database (C-CID). The Dahdaleh Institute houses the research initiative and supports the management, research coordination, and analysis of the data collected with the collaboration of participating partners. The research initiative receives funding support by the Dahdaleh Institute and the Faculty of Liberal Arts and Professional Studies, York University.

Projects under the initiative:

- **produce novel research to build synergies across multiple action areas** on climate, biodiversity, and adaptation to health impacts of environmental change, compatible with the UN Sustainable Development Goals.
- **integrate critical perspectives and empirically informed research** for a new relationship between people, planet and nature. Projects bridge theory and practice for strengthening local and non-state and subnational actions to address global challenges.
- **provide expert support and knowledge mobilization at [UN Framework Convention on Climate Change](#), [UN Convention on Biological Diversity](#), [UN Convention for Combating Desertification](#), and [the 2030 Agenda for Sustainable Development](#).**
- **design global engagement projects** with actors based in the global south working on climate initiatives, with focus on nature-based solutions and adaptation. We develop a global outreach project for a pilot participatory and collaborative exercise for case studies through the participation of initiatives with a regional focus.
- **create international and intersectoral opportunities for student and postdoctoral researcher training.** Students and postdoctoral researchers benefit by joining our international research team, allowing unique opportunities building partnerships and career advancement. Research opportunities are also given to undergraduate students.

In 2020, in addition to setting up our team, we put in place a 5-step phased project management process (Fig. 1):

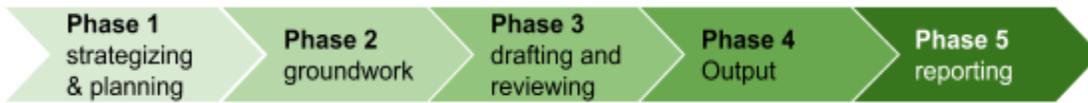


Fig. 1: 5-step phased project management process

Projects are underway on four tracks.

Project	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Nature-based solutions and sustainable development synergies	✓	✓	in progress		
Adaptation to slow onset health impacts of climate change	in progress				
Effective, equitable, and integrated: a critical problem-solving approach to health, climate, and social goals	in progress				
Student and postdoctoral training lab	✓	in progress			

Table 1: Synergies of Planetary Health projects

Synergies of planetary health
thematic areas and project clusters

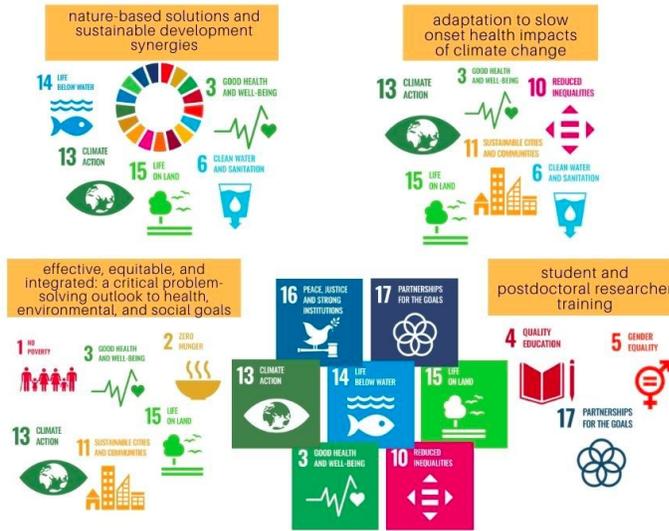


Fig 2: Project layout map - Synergies of Planetary Health thematic areas and project tracks

Our research projects respond to the 17 Sustainable Development Goals in various configurations. Some SDGs feature as substantive themes of the research initiative. These are: SDG 13: climate action; SDG 14: life under water; SDG 15: life on land; SDG 3: health and well-being; SDG 10: reduced inequalities; SDG 16: peace, justice, and strong institutions; SDG 17: partnerships for the goals. Additionally, through our student and postdoctoral research training lab, we are targeting specific targets that link our substantive SDG targets to SDG 4, 5, and 17. We aim to identify and advance synergies in the 2030 Agenda to address social, planetary, and environmental issues as interconnected.

Activities overview

Our work began before the official launch of the Synergies of Planetary Health Research Initiative. We started a dialogue on strengthening climate action with an official side event panel at the [UNFCCC COP25](#) in Madrid on December 3, 2019.





Nature-based solutions & Global Climate Action: Strengthening synergies beyond 2020

Nature-based solutions play a key role in *Global Climate Action* beyond 2020. This event highlights synergies across nonstate, local, and regional actors and between the UNFCCC and Convention on Biological Diversity (UNCBD). Panelists will share best practices in nature-based climate action and discuss opportunities to strengthen them within the UNFCCC.

When: **Tuesday, 3 December 2019, 16:45 - 18:15**
Where: **Room 6, COP25**

Speakers

Idil Boran, York University, Canada
Sander Chan, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE)
Niclas Svenningsen, UNFCCC Secretariat (TBC)
Chantal Robichaud, UNCBD Secretariat
Edoardo Croci, GREEN Bocconi University
Miriam Garcia, University of São Paulo
Alexandra Deprez, Institute of Sustainable Development and International Relations (IDDRI)

Fig.3: Side-event: Nature-based solutions and Global Climate Action: Strengthening synergies beyond 2020 - UNFCCC COP25 Madrid 2019. Organized by Idil Boran with Sander Chan, and Miriam Garcia, in partnership with German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE); Boticario Foundation; SPVS; Università Bocconi.

In 2020, our work focused on building groundwork on key governance areas and conducting a comprehensive literature review (including peer-reviewed and grey literature) on One Health, nature-based solutions, preparations for the post-2020 biodiversity framework under the CBD.

The literature surveys are the basis of outputs, including:

- drafting a discussion paper (in progress): Working title: “Nature-based solutions for biodiversity, climate, and health: A review for a multi-actor conceptual framework”
- strategizing a draft for peer-reviewed publication (in progress). Working title: “Contextualizing Nature-based solutions for broadening climate action and maximizing sustainable development synergies”
- preparation of grant application for collaborative research initiatives (in progress)

2020 at a glance

January-March

- January-March: workshop organization on maximizing biodiversity-climate-health synergies planned for March 19 (cancelled due to COVID-19)
- February: [Statement for the preparation of the post-2020 global biodiversity framework](#)
- Drafting (phase 1) of the “nature-based solutions and broadening global climate action and maximizing sustainable development synergies” working paper.
- A planned consultation workshop on nature-based solutions for March was cancelled due to COVID-19 pandemic
- January-April: Rebecca Babcock, Research Assistant Support

Responsibilities:

- Support organizing workshop
- Support literature review for NBS project, with specific focus on One Health approach

April-June

- Statement to CBD for the International Day for Biological Diversity
- Application for LA&PS Minor Research Grant (successful) to conduct literature review of nature-based solutions working paper and prepare outputs
- [Human-Rights, The Sustainable Development Goals and the Law: International Legal Symposium](#)
- Online Expert Workshop Series: [It's the end of the COP as we know it!](#) Organized by Wuppertal Institute and German development Institute / Deutsches Institut für Entwicklungspolitik (DIE), [discussion panels](#).

July-September

- Submission made to [Marrakech Partnership for Global Climate Action](#)
- Drafting (phase 2) of the “nature-based solutions and broadening global climate action and maximizing sustainable development synergies” working paper.

October-December

- Graduate Seminar on Planetary Health seminar completed Guest speakers included: Dr. Courtney Howard, Dr. Sander Chan, SPVS Brazil, Dr. Byomkesh Talukder; and Dr. Allen Habib. The seminar provided a participatory learning environment for graduate students to develop research plans, with speakers series and graduate student engagement
- November 1st: Megan Whitney joined as Research Assistant
 - Responsibilities:
 - Work on data-collection with partner coding team under Sander Chan's supervision based in Bonn/Groningen
 - Support the NBS project working paper
 - Help with the launch of the *Synergies of Planetary Health Research Laboratory* in the winter term
- Acceptance of major peer-reviewed research paper in Global Policy, Chan et al. (forthcoming) with partners and broader research networks.
- Publication of the opinion article in Global Policy, van Asselt et al. 2020: [Realizing the Promise of Paris: Three Ways of Strengthening Non-State and Subnational Climate Action | Global Policy Journal](#)

2020 in close up

Literature reviews

Literature reviews were conducted on nature-based solutions, One Health, and grey literature on the preparations for the post-2020 global biodiversity framework under the Convention for Biological Diversity (CBD). These exercises were part of the groundwork for the project on nature-based solutions for maximizing synergies.

Database Searches and Bibliography on One Health

A literature search was conducted on One Health approach, using multiple databases, including Medline; Web of Science; Global Health Library (WHO); Environment Complete; Google Scholar; Proquest, and Scopus. Within each database, a search was completed using a combination of the term “One Health” with Adaptation, Biodiversity, Climate Change, or Nature-Based Solutions, and catalogued. This work was done from January to April 2020. The results of the literature search will be compiled into a resource document in 2021.

Review of CBD documents for the post-2020 global biodiversity framework

Summaries were written on Convention on Biological Diversity documents relating to the Post-2020 Global Biodiversity Framework. The summaries included:

1. the Zero Draft of the Post-2020 Global Biodiversity Framework, February 2020 version. the Open-Ended Working Group on the Post-2020 Global Biodiversity Framework on its First Meeting.
2. Second Meeting of the Open-Ended Working Group on the Post-2020 Global Biodiversity Framework.
3. A cluster of documents referred to as the Responses to the Zero-Draft of the Post-2020 Global Biodiversity Framework.

The summaries were designed to highlight concepts, such as: theory of Change, synergies, connections/connectivity; harmony with nature; nature-based solutions; ecosystem-based solutions / approach; interlinkage/interrelationship/relationships. This review will be updated in 2021 and its results compiled into a resource document.

Literature review on definitions, science, and governance of ‘nature-based solutions’

A selective scoping review was conducted to map the key conceptual clarifications and typologies underpinning research and practice on nature-based solutions, in order to identify salient features, strengths, and gaps. The review was conducted through March-July 2020 in three steps.

Step 1: The research questions were set as: *What are the typologies in the existing literature on nature-based solutions? What are the criteria used to differentiate types of nature-based solutions?*

Step 2: A keyword search was conducted for peer-reviewed publications and grey literature, comprising policy documents and reports in established networks and organizations, including international non-governmental organizations, e.g., International Union for the Conservation of Nature (IUCN); and international organizations, e.g., UN Framework Convention on Climate Change (UNFCCC); Convention for Biological Diversity (CBD); European Academies' Science Advisory Council (EASAC).

Step 3: primary readings deemed 'best fit' with the research question were selected. 'Best fit' for this literature review has been defined as readings offering concept clarification and typologies.

Step 4: findings were distilled into an overview of typologies of nature-based solutions to be assessed in order to identify salient features, strengths, and gaps of concept clarifications and typologies. This literature review set the basis for a discussion paper in progress that situates the findings of the literature review in the larger constellation of global governance on climate, biodiversity, and sustainable developments goals. The completion of the discussion paper is targeted for 2021.

This groundwork provides support for studying progress of actions linking climate, biodiversity, and health. Gaining an understanding of progress, imbalances, and gaps requires both an aggregate understanding and a more granulated understanding of the diverse experiences of designing and implementing nature-based initiatives that deliver outcomes that simultaneously support biodiversity, climate, and health goals. Comparative studies of a large number of initiatives are still sparse. This project's aim is therefore two-fold: (1) to gain an aggregate understanding of them drawing on data from the Climate Cooperatives Initiatives Database (C-CID) and generate critical perspectives on how to strengthen actions to maximize efficiency and equity; (2) to complement the aggregate picture with a granulated, regionally focused case-studies discussing opportunities and challenges for nature-based initiatives in the Global South.

Data collection

Data collection in partnership with C-CID database

For the purpose of gaining aggregate understanding, The Climate Cooperatives Initiatives Database (C-CID) gathers aggregate data on initiatives by non-state and subnational actors that address aspects of climate change, including mitigation and adaptation. Data from the C-CID is used to evaluate the performance of initiatives by applying a log-framing methodology to determine if an initiative is producing outputs that are aligned with its functions. The C-CID is an important tool to analyze the involvement of non-state and subnational actors in climate action and sustainability governance. Nature-based solutions hold a promise to deliver multi-faceted benefits and contribute to sustainable development synergies. However, the effectiveness of NBS is yet to be better understood. The C-CID develops a distinct methodology for tracking the performance of initiatives. This methodology, as

elaborated upon below, provides a valuable indicator. In 2020, the coding team collected data on a subset of cooperative initiatives classified as nature-based solutions (NbS) for analysis in our “Nature-based solutions: catalyzing action for biodiversity, climate, and health” working paper and follow up publications. The efforts are underway in early 2020 to deliver full data for 2021.

The work at the C-CID database is conducted by an interdisciplinary team of researchers, led by Dr. Sander Chan, Senior Researcher at the Global Center on Adaptation and German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE). The C-CID is coordinated by Andrew Deneault, a Researcher at DIE based in Bonn, Germany. In 2020, a team of coders collaborated in a remote format to expand and update the C-CID. The coding team members are: Johannes Brehm, Researcher at DIE; Mishel Mohan, Disaster Governance and Risk Reduction Fellow at Sphere India; Bianca de Souza Nagasawa, Research Intern at Global Centre on Adaptation; Aron Teunissen, Research Intern at Global Center on Adaptation; and Megan Whitney, Graduate Research Assistant at the Dahdaleh Institute for Global Health Research, York University.

To populate the C-CID, the coding team gathers multiple types of data, including on: actors, organizational characteristics, and targets; geographies of implementation; functions, outputs, and ‘output performance’; and COVID-19 responses since 2020. The effect of COVID-19 pandemic on climate action/NBS is yet to be known, but this data collection is one of the first to be able to give an early indication. Data collection aims to answer key questions in analyzing non-state actor engagement, including: who participates in climate actions; are cooperative initiatives open to engaging new partners; details on monitoring arrangements; stated or potential alignments with the 2030 Agenda for Sustainable Development; data on geographies of implementation; and details on the categories of output produced by initiatives. This data is entered into a shared database for further analysis and dissemination for policy documents, academic publications, and forums, to deepen understanding of the diverse roles of non-state and subnational actors. This understanding supports a two-pronged research interest on governance: (a) how non-state and subnational governments support government targets, notably the Nationally Determined Contributions (NDCs) to the goals of the Paris Agreement, and (b) broader understanding of the global environmental governance landscape and the orchestration arrangements at the intergovernmental level (e.g. UNFCCC; CBD; UNCCD; Agenda 2030 etc.) to facilitate and enable ambitious action for the globally agreed goals.

Outlook

In the second year, the Synergies of Planetary Health team will continue to produce original research and work on outputs, project planning and strategizing, outreach and knowledge dissemination activities, and the preparation of funding applications for collaborative partnerships. For the next phases, our strategy is two-fold: (1) peer reviewed publications, outlining the conceptual basis of the project and (2) to bring together our scientific and institutional resources to pilot a participatory deep-dive exercise with case-studies. We are building capacity for case study projects to be compiled

through a participatory process with the collaboration of initiatives based in the Global South for an inclusive, collaborative knowledge co-production and exchange of experiences. We will be working on reach out activities, which will primarily be online. The goal will be to understand how opportunities and challenges for cooperative initiatives focused on adaptation in the global south vary across types of initiatives, actor configurations, and geographic location, with the aim of developing with our partners a knowledge base to strengthen the initiatives' performance toward effective and equitable environmental and social impacts for sustainable development synergies.

Acknowledgements

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Image credits

Page 1: [“Resilience”](#) | [Roberto Saltori](#) | Flickr | UNFCCC

Page 5: UNFCCC COP25 Madrid 2019 | Side-event: Nature-based solutions | Idil Boran personal collection

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