

# Islands on the Climate Front Line: Risk and Resilience

*April 20–21, 2022*

## ABOUT PERRY WORLD HOUSE

Perry World House is a center for scholarly inquiry, teaching, research, international exchange, policy engagement, and public outreach on pressing global issues.

Perry World House's mission is to bring the academic knowledge of the University of Pennsylvania to bear on the world's most pressing global policy challenges and to foster international policy engagement within and beyond the Penn community.

Located in the heart of campus at 38th Street and Locust Walk, Perry World House draws on the expertise of Penn's 12 schools and numerous globally oriented research centers to educate the Penn community and prepare students to be well-informed, contributing global citizens. At the same time, Perry World House connects Penn with leading policy experts from around the world to develop and advance innovative policy proposals.

Through its rich programming, Perry World House facilitates critical conversations about global policy challenges and fosters interdisciplinary research on these topics. It presents workshops and colloquia, welcomes distinguished visitors, and produces content for global audiences and policy leaders, so that the knowledge developed at Penn can make an immediate impact around the world.

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## > EXECUTIVE SUMMARY

On April 20 and 21, Perry World House hosted its 2022 Global Shifts Colloquium, “Islands on the Climate Front Line: Risk and Resilience.” The colloquium brought academics, practitioners, policymakers, and other stakeholders together to discuss policymaking at the intersections of environmental justice, colonialism, and climate change; preparations for the worst impacts of global warming; and how to build urban and sectoral resilience in Small Island Developing States (SIDS). The first day of the colloquium, which took the format of a workshop, featured opening

remarks from Anote Tong, the former president of the Republic of Kiribati, and a recorded address by Vice President of the Dominican Republic Raquel Peña de Antuña. President Tong described the vulnerabilities shared by SIDS across the world, while Vice President Peña de Antuña recounted her country’s struggle with the COVID-19 pandemic, highlighting the sensitivity of SIDS to external shocks, and calling on participants to address the climate threat to small island countries.<sup>1</sup>

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<sup>1</sup> Address from Vice President Raquel Peña de Antuña: <https://www.youtube.com/watch?v=At6lADcGFE4&t=5s>.



Photo by Eddy Marengo.

**FOUR PRIORITIES EMERGED FROM THE COLLOQUIUM'S WORKSHOP, BECOMING ANCHORS FOR POLICY ACTION.**

1. **Restorative Justice:** Many country representatives and stakeholders from SIDS emphasized restorative justice as an integral element of climate policymaking, noting that it must be informed by those affected by climate change and historical injustice.
2. **Finance:** Panelists repeatedly referenced the need for more resources—especially increased, higher-quality, and more accessible finance—to fund impactful climate action across all levels of governance.
3. **Inclusive Governance and Participatory Action:** Discussants underscored the importance of engaging climate-affected communities and peoples in the decision-making process. They highlighted the critical role that youth play: raising awareness at the community level, pressuring policymakers at the global level, and growing into the next generation of climate policymakers.
4. **Enhanced, Inclusive, and SIDS-Specific Data:** Country representatives and stakeholders emphasized the need for data that can support informed decision-making, planning, and advocacy, as well as strengthen the interface between science and policy.

**THROUGHOUT THE COLLOQUIUM'S TWO DAYS OF DELIBERATIONS, PANELISTS PROPOSED KEY POLICY RECOMMENDATIONS TO HELP MEET THESE PRIORITIES:**

- Recognize the contributions of colonial exploitation to SIDS' climate vulnerability and redress historical wrongs through restorative justice frameworks;
- Drastically increase the quantity and quality of finance and other resources for climate action in SIDS;
- Employ forecast-based systems (pre-positioned finance) to reduce human suffering and improve disaster response;
- Integrate people living in informal settlements and working in the informal economy into formal decision-making processes;
- Improve SIDS-specific data to conserve biodiversity;
- Increase renewable energy generation; and
- Climate-proof the value chains of local small-, medium-, and micro-enterprises (SMMEs), often referred to as local green-blue enterprises (LGEs), which depend on natural resources.

The colloquium hosted representatives from SIDS, including Antigua and Barbuda, the Dominican Republic, Fiji, Haiti, Jamaica, Kiribati, Maldives, the Marshall Islands, and Trinidad and Tobago; as well as stakeholders from the UN Framework Convention on Climate Change (UNFCCC), the UN Office for the Coordination of Humanitarian Affairs (OCHA), the Caribbean Natural Resources Institute, and the Alliance of Small Island States (AOSIS).



## > INTRODUCTION

Climate change is a defining global challenge of this century. The Intergovernmental Panel on Climate Change (IPCC) *2022 Assessment Report* warns of the dire consequences all regions will face if global warming progresses.<sup>2</sup> Climate change will impact sectors such as migration (where people can live), livelihoods (where and how people can work), infrastructure (how people can travel and where they can settle), and food security (what and how much people can eat). The world's current greenhouse gas (GHG) emissions pathway, which is on track to cause dangerous levels of warming, means that climate change is not just an environmental threat, but a universal and collective socioeconomic crisis.

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<sup>2</sup> The Working Group II contribution to the IPCC Sixth Assessment Report assesses the impacts of climate change, looking at ecosystems, biodiversity, and human communities at global and regional levels. It also reviews the vulnerabilities, capacities, and limits of the natural world and human societies to adapt to climate change. See: IPCC, *Sixth Assessment Report*, accessed May 2022: <https://www.ipcc.ch/report/ar6/wg2/>.

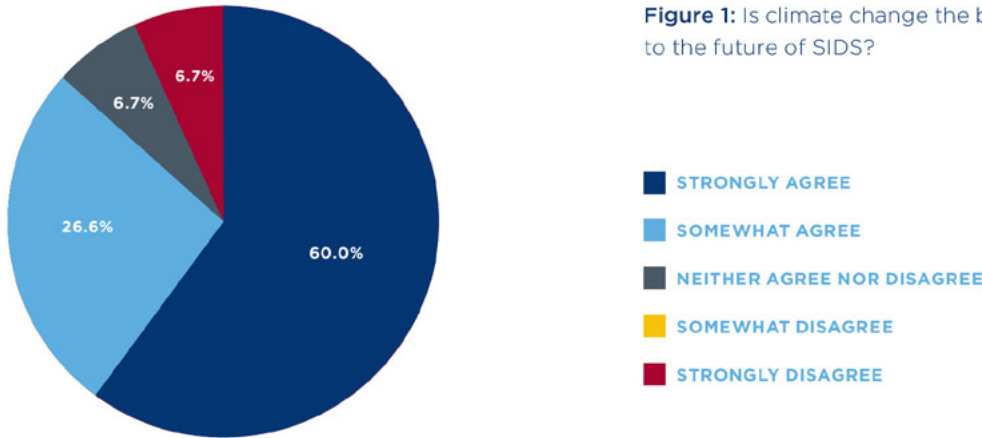
SIDS are among those countries most vulnerable to the first and worst impacts of the climate emergency. Many SIDS are remote, with the majorities of their populations inhabiting low-lying and coastal areas exposed to storm surges and sea-level rise. Their economies are characteristically narrow and dependent on natural resources, meaning they too are excessively vulnerable to climate change impacts. SIDS are a harbinger of what will happen in other coastal areas, and their early and obligatory adaptation to changing conditions can inform policy approaches elsewhere. SIDS have been forced into a position of leadership on a problem they did not cause, and the international community must both learn from their efforts and better understand how to support them.

In an effort to identify how policymakers, practitioners, and academics perceive the climate emergency in SIDS, Perry World House surveyed colloquium participants. Sixty percent of respondents indicated that they strongly agreed that climate change is the biggest threat to the future of small islands. Just over 25 percent somewhat agreed with this assessment. Approximately 13 percent felt neutral about the risks of global warming to island futures.

SIDS offer an opportunity to understand and assess climate vulnerability through a historical lens—an approach that can also inform and advance

policy-making. In a paper written for the colloquium, the University of the West Indies’ Heather Cateau describes how colonial and neo-colonial systems have denuded many islands’ natural, social, and economic landscapes, leaving them more susceptible to exogenous shocks. The paper explains how global warming represents a second assault on environments and peoples still recovering from their colonial histories. SIDS’ experiences show that addressing climate change globally will require righting past injustices and restoring the socioeconomic and eco-systemic fabric of affected countries.<sup>3</sup>

To advance solutions to these policy questions, Perry World House convened the 2022 Global Shifts Colloquium, “Islands on the Climate Front Line: Risk and Resilience.” Stakeholders representing a diversity of academic and policy institutions—as well as the three island regions of the Caribbean, the Pacific, and the Indian Ocean and South China Sea—exchanged views, experiences, and research findings. Colloquium participants investigated the rudiments of SIDS’ climate vulnerability and discussed how small island nations might prepare for this environmental and socioeconomic emergency. Throughout the two days of discussions, they explored a variety of policy pathways that could foster local, regional, and global climate action as well as build adaptation across critical spaces and sectors.



**Figure 1:** Is climate change the biggest threat to the future of SIDS?


<sup>3</sup> Heather Cateau, “Towards Environmental Justice in an Era of Climate Change: The Nexus between History and Impactful Policy Formation in the Caribbean,” Perry World House (2022).

The colloquium put SIDS representatives and stakeholders at the center of a serious academic platform from which their perspectives were articulated and amplified, and new paths for cooperation and learning were forged. In workshop panels, discussants gave a comprehensive focus to the challenges facing small islands and the options available for overcoming them. In public keynotes, political, cultural, and scientific leaders brought attention to the plight of SIDS, the depth of their resilience, and actions world leaders should take to stop the climate crisis.

Going forward, Perry World House will leverage outcomes from these proceedings to foster further collaboration between SIDS policymakers, the University of Pennsylvania, and other stakeholders

working to address climate vulnerability globally. For instance, in response to repeated calls in this colloquium for increased and more accessible resources, Perry World House partnered with the Wharton School to further discuss global climate finance. This workshop, which took place in fall 2022, examined policy options to channel more finance toward adaptation globally, assure that such resources are impactful, and finance a just transition to a post-carbon world. This follow-on workshop advanced solutions to the challenges initially discussed at the colloquium, further bridged the gap between policymaking and academia, and developed more nuanced prescriptions that could be taken forward by policymakers nationally as well as in multilateral fora like the UNFCCC.





“War is killing people, displacing people, destroying everything around them. This is exactly what is happening in our islands. The genocide that could happen on island communities would be a genocide of choice. The world chooses.”

—Colloquium Participant, describing the impacts of the climate crisis in SIDS



## KEYNOTE ADDRESS

## > THE LANDSCAPE OF THE CLIMATE CHALLENGE IN SIDS

Anote Tong, the former president of the Republic of Kiribati, opened the workshop portion of the colloquium by describing many of the unique vulnerabilities SIDS share and potential policy options for addressing them. The first major challenge he outlined was purely geographical: Pacific SIDS are remote and low-lying, at an average of just two meters above sea level. This geography, he explained, combined with small size and limited resources, leaves SIDS extremely vulnerable to the impacts of climate change, especially sea-level rise and powerful storm systems.



*Former President of Kiribati, Anote Tong delivered the colloquium's keynote address, providing an overview of how SIDS are impacted by climate change.*



*Colloquium participants listen to President Tong's address.*



*Colloquium participants, including Ambassador Thilmeeza Hussain, Permanent Representative of Maldives to the United Nations, discuss President Tong's address.*

The former president noted that the slow-onset nature of the changes in tides and storm surges coincided with a gradual recognition of the dangers of global warming. He underscored the need for swift global and local policy action, while highlighting how youth activism could galvanize change at home and abroad both now and in the future.

Tong also discussed how SIDS might respond to climate change, pointing out that island peoples were committed to remaining in their homes and on their lands, even though some discourse has turned to the prospect of international migration. His address stressed critical questions about how people will migrate if this becomes necessary and whether entire nations will be forced to become second-class citizens as climate refugees. The keynote set the tone and rationale for the colloquium: Responding to the impacts of climate change is not a choice for small islands, but a matter of survival. This harsh reality was the touchstone for discussions throughout the convening.



**PART ONE:**  
**UNDERSTANDING  
THE PAST AND  
PREPARING FOR  
THE FUTURE**





## ➤ THE LEGACIES OF COLONIALISM AND ENVIRONMENTAL JUSTICE IN THE ERA OF CLIMATE CHANGE

The colloquium’s first panel applied a historical lens to climate vulnerability, providing context for the day’s conversations and highlighting the history behind present challenges. Participants agreed that any solutions to the climate crisis would also have to address, if not redress, the lasting legacies of colonialism.

Panelists included Heather Cateau, dean of the Faculty of Humanities and Education at the University of the West Indies; Stacy-ann Robinson, professor of environmental studies at Colby College and then-incoming Lightning Scholar at Perry World House; Anote Tong, former president of Kiribati; and Ambassador Walton Webson, permanent representative of Antigua and Barbuda to the United Nations and chair of AOSIS.

### COLONIALISM AND THE ROOTS OF VULNERABILITY

For centuries, and in some part still today, the machinery of colonialism ingrained an “extraction ethos” and an outright disregard for human rights in SIDS. Whether it was settler colonialism engineering the disappearance of islands’ native inhabitants, planter colonialism introducing monocropping and industrial agriculture, or “Not in My Backyard” colonialism using distant lands as dumping or nuclear testing grounds, imperial practices caused environmental destruction, exploited labor, drove inequities, and stunted developmental capabilities in SIDS. Today, these systems

remain in place to various degrees, channeling resources from historically colonized lands and peoples to former colonizing nations. The results are the depletion and pollution of natural resources, reduced human capacity, low levels of economic development, and high levels of indebtedness in previously colonized countries—as opposed to advanced industrialization, development, and the accumulation of wealth in former colonial powers.<sup>4</sup>

This history has also influenced the dynamics of climate change. Countries that benefited from these resource flows often grew into highly developed and industrialized economies, becoming the largest emitters of GHGs and the most significant contributors to the climate crisis. Countries that were stripped of resources, including many SIDS, often remained underdeveloped, while contributing the least to global warming. Today, SIDS emit less than 1 percent of the world’s GHGs but bear the brunt of the costs of other countries’ development.<sup>5</sup> One panelist likened the injustice of the climate change crisis to that of colonialism in SIDS, noting that “without transformative change, climate change is just another plantation.”

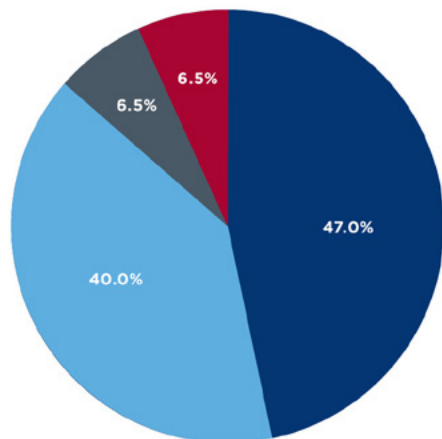
Panelists pointed out that SIDS have not recovered from the socioeconomic and environmental damages of the original colonial experiment. Resulting stressors like land degradation and poverty now magnify their exposure to climate change-driven catastrophe. Nearly 50 percent of colloquium survey respondents strongly agreed that the colonial and neocolonial experience of SIDS hampers their responses to climate change.<sup>6</sup> Another 40 percent of survey respondents somewhat agreed that historical experiences in the islands will impede mitigatory and adaptive climate action.

<sup>4</sup> Ibid.

<sup>5</sup> Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, “Small Island Developing States in Numbers: Climate Change Edition,” 2015: [2189SIDS-IN-NUMBERS-CLIMATE-CHANGE-EDITION\\_2015.pdf\(un.org\)](https://www.un.org/development/desa/pd/datastore/2189SIDS-IN-NUMBERS-CLIMATE-CHANGE-EDITION-2015.pdf).

<sup>6</sup> A pre-colloquium survey was given to all participants to gauge their views, opinions, and priorities on the topics that would be discussed during the workshop. The survey was designed to spark discussion and debate among participants throughout the convening.

*Opposite page: A collage looking back at the two days of the colloquium. Public event photos by Eddy Marengo.*



**Figure 2:** The colonial experience of SIDS impedes their ability to adapt to climate change.



## KEY TAKEAWAYS FOR POLICYMAKERS

Colloquium discussions underscored that the current environmental crisis in SIDS is largely rooted in colonialism and that recognition and redress of this history must factor into policy considerations addressing the climate emergency. Recommended policy responses sought to advance restorative justice; build activism through civic, especially youth, engagement; and increase finance and resources for climate action.

### Laying the Groundwork for Restorative Justice

Panelists noted that a first step toward environmental justice would be to recognize the contributions of colonial exploitation to SIDS' current climate vulnerability. Official apologies from colonizing countries would signal only the start of such recognition; in the long term, policymaking must address the historical context of current needs and prevent climate change policies and practices from sowing further injustice. To build trust, policy interventions must be rooted in SIDS' regional and local histories, perspectives, and challenges.

Stacy-ann Robinson drafted a brief for the colloquium that introduced the idea of using a restorative justice framework to focus policy responses. It explains that restorative justice is a bottom-up, community-oriented process that depends on the participation of all stakeholders in deciding appropriate action and policy. Through this approach, SIDS would be recognized as having been historically wronged, with the costs of climate change directly linked to colonialism. Justice

would take the form not only of direct compensation for those damages, but also as truth and reconciliation councils, technology transfers, and other actions that recognize SIDS as bearing the brunt of past, present, and future climate change impacts.<sup>7</sup>

### Advancing Civic Engagement

Panelists noted that local engagement and activism can spread to the wider global community and put pressure on developed nations to address current and historical global injustices. Several stakeholders highlighted the importance of youth engagement, noting that in SIDS, next-generation actors can help advance local understanding of the challenges and catalyze community-level, as well as global, action. Other discussants said that engaging with local and/or Indigenous experts, and giving them a voice in climate policy discussions, was a critical element of any policy response.

### Finance

Many participants emphasized the need for more financial resources to support both climate mitigation and adaptation in SIDS. Climate actions and the flows of resources, they argued, should align with the principle of common but differentiated responsibility, as defined by the Paris Agreement. This means, inter alia that developed countries must reach net-zero emissions first, and they must provide climate finance to SIDS and other developing countries to adapt to and deal with irreversible climate-driven damages. Mobilizing this finance, discussants highlighted, would be a key part of environmental justice.

<sup>7</sup> Stacy-ann Robinson, "Applying Restorative Justice to Climate-related Loss and Damage in Small Island Developing States," Perry World House, 2022.



The first panel was moderated by (left) Deborah Thomas, R. Jean Brownlee Professor of Anthropology at the University of Pennsylvania, and featured (center) Stacy-ann Robinson, Perry World House Lightning Scholar and Assistant Professor of Environmental Studies at Colby College; (right) Heather Cateau, Senior Lecturer and Dean of the Faculty of Humanities and Education at the University of the West Indies, St. Augustine; and (not pictured) Ambassador Walton A. Webson, Permanent Representative of Antigua and Barbuda to the United Nations.

They emphasized that resources provided to date have not matched the scale of the emergency. Panelists pointed out that a pot of US \$100 billion per year, which in 2009 developed country parties to the UNFCCC agreed to mobilize beginning in 2020,<sup>8</sup> would pit SIDS against one another in a competition for insufficient resources. Approximately half of colloquium survey respondents thought that SIDS received “far too little” support from international financial institutions (IFI), while the other half thought that the islands received “somewhat too little” support. No survey respondents believed that IFI support to SIDS was “about right,” “somewhat too much,” or “far too much.”

For meaningful impact, however, discussants said that the developed world must not only drastically increase the quantity, but also the quality of climate finance available to SIDS. This would mean making resources readily available in ways that do not increase SIDS’ debt or other burdens. Panelists noted that the development of the Multidimensional Vulnerability Index (MVI),

which would quantify structural vulnerability in SIDS, might be one way to increase SIDS’ access to quality concessional finance.<sup>9</sup> Participants did not agree on whether vulnerability can or should be quantified but did note the importance of leveraging both qualitative and quantitative data to increase access to resources.



#### QUESTIONS FOR FUTURE RESEARCH:

**How can environmental justice be formally brought into international mechanisms for climate policymaking?**

**How should the global financial architecture be reoriented to meet the goals of the Paris Agreement?**

**In what important ways has civic engagement impacted climate policymaking? How can it be harnessed for further impact?**

<sup>8</sup> “Paris Agreement,” United Nations Audiovisual Library of International Law, accessed April 2022: <https://legal.un.org/avl/ha/pa/pa.html>.

<sup>9</sup> There are numerous efforts currently being undertaken by various organizations and institutions, from within and outside the UN system, on developing a Multidimensional Vulnerability Index for SIDS. See: UN-DESA, “Multidimensional Vulnerability Index for SIDS,” accessed May 2022: <https://sdgs.un.org/topics/small-island-developing-states/mvi>.



*Participants in the colloquium's first panel listen to remarks from Ambassador Walton A. Webson, Permanent Representative of Antigua and Barbuda to the United Nations.*





## ➤ PREPARING FOR THE WORST IMPACTS OF CLIMATE CHANGE

The colloquium opened with a discussion of the past, which put forth policy prescriptions for coping with the future of climate change. The next panel built on this discourse by investigating how SIDS might prepare for the worst impacts of global warming, many of which are already unfolding and will continue to do so, even if the international community succeeds in keeping temperature rise to 1.5 degrees Celsius above preindustrial temperatures (a minimum goal of the Paris Agreement, which the world is not on track to meet).

The panel addressed the basic question of what nations, communities, and people should do when their businesses become untenable, their lands uninhabitable, and their societal bonds disrupted by the impacts of climate change. Participants considered what policies might be put in place now to prepare for observed and predicted losses of lands, livelihoods, and cultures. They also addressed the difficult policy issue of recompense for loss and damage from catastrophic climate impacts.

Panelists included Ambassador Thilmeeza Hussain, special envoy of the president of the General Assembly and permanent representative of the Maldives to the United Nations; Ambassador Satyendra Prasad, permanent representative of Fiji to the United Nations; Koko Warner, manager of the Climate Impacts, Vulnerability, and Risks Subprogram at the UNFCCC; and Zinta Zommers, humanitarian affairs officer at OCHA.

### CLIMATE IMPACTS NOW INDICATE A DIFFICULT FUTURE

Discussants made clear how intensely SIDS feel climate impacts, and they provided compelling examples of the urgent need for strong and rapid action. Panelists pointed out that in the Pacific SIDS, freshwater salinization, coral bleaching, ocean acidification, and coastal erosion were already acute. A brief written for the colloquium by Zinta Zommers noted that with warming exceeding 1.5 degrees Celsius, freshwater resources will dwindle and pose potential hard limits for small islands; while at a 2 degrees Celsius or higher temperature increase above preindustrial levels, food security issues could lead to malnutrition, while sea-level rise will pose an existential threat.<sup>10</sup> In 2021, the IPCC estimated that total human-caused global surface temperature increase from the preindustrial era is approximately 1.07 degrees Celsius.<sup>11</sup>

In both the Pacific and Caribbean islands, participants described governments as operating on a war footing as they continually responded to slow-onset events, extreme weather, and natural disasters.



*Ambassador Satyendra Prasad, Permanent Representative of Fiji to the United Nations, addresses the panel on the worst impacts of climate change.*

<sup>10</sup> Zinta Zommers, “Addressing Climate Risk in Small Island States—Opportunities for Action,” SDG Knowledge Hub, 2022: <https://sdg.iisd.org/commentary/guest-articles/addressing-climate-risks-in-small-island-states-opportunities-for-action/>.

<sup>11</sup> Working Group I, Climate Change 2021: The Physical Science Basis. IPCC, 2021: [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_SPM\\_final.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf).

“I hope and assume that we are all opposed to the war in Ukraine. I believe climate change is an act of war, and it is a war of choice. The way climate change impacts SIDS is the exact way a war takes place. Until we begin using that language, we are beating around the issue.”

—Colloquium Participant

They noted a continual cycle of deficit, where countries still recovering from one disaster are hit by another. Nearly 80 percent of SIDS’ debt resulted from climate change-related recovery. One country representative said that protecting the entirety of their coastline would require more than \$10 billion annually, before considering other adaptation costs. Many underscored that SIDS cannot adapt their way out of the situation without the rest of the world doing its part to mitigate climate change and finance island adaptation and resilience.

### PREPARING FOR MIGRATION

Panel discussions focused also on climate change–induced displacement and migration, describing migration as one of a variety of ways that people respond to risks. In a paper written for the colloquium and discussed in the workshop, Koko Warner described four scenarios under which people in SIDS may move,

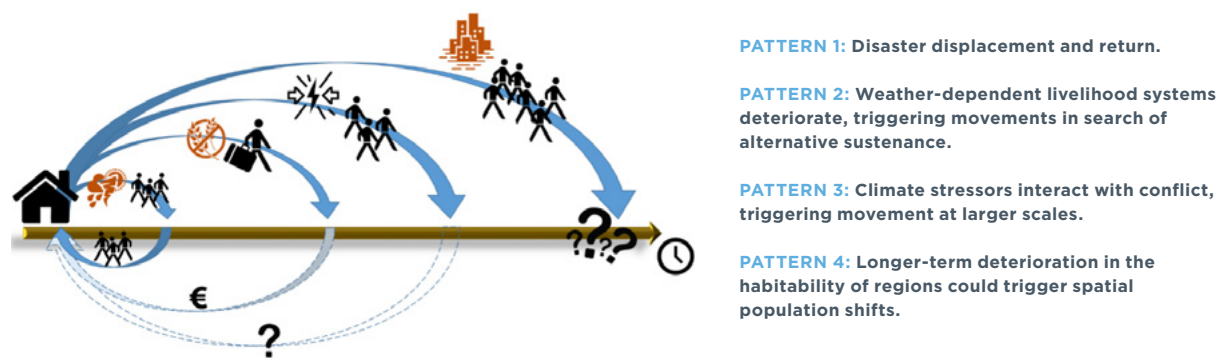
return, or permanently migrate (see figure at right).<sup>12</sup> Under the first circumstance, people can return if normalcy and basic services are re-established following a shock. In the second pattern, people may migrate away as slow-onset events affect living conditions, and they may return if alternative livelihoods can be pursued. The third scenario describes what happens when conflict over limited resources arises, as in the instance of severe drought, and return depends on establishing peaceful conditions. The fourth pattern occurs when life-sustaining ecosystems cannot support human populations, resulting in large-scale movements of people.<sup>13</sup> With regard to this fourth scenario, panelists emphasized the dangers of normalizing whole-nation exodus as a policy option for SIDS inhabitants and underscored that migration should be a last resort, because it means that communities or even entire countries are no longer habitable.

Warner’s brief and subsequent discussions highlighted the struggle that countries face planning for a future where the full impacts of anthropogenic climate change

<sup>12</sup> Koko Warner, “Human Mobility in the Context of SIDS and Climate Change: Pre-empting, Planning, and Contingency Arrangements for Adverse Climate Change Impacts,” SDG Knowledge Hub, 2022: <https://sdg.iisd.org/commentary/guest-articles/human-mobility-in-the-context-of-sids-and-climate-change-pre-empting-planning-and-contingency-arrangements-for-adverse-climate-change-impacts/>.

<sup>13</sup> Ibid.

**Figure 3:** Four patterns of human mobility with climate stressors relevant to SIDS



Source: Author, image created by Carolin-Anna Trieb for Munich Re Foundation Dialogforum 1.3.2017 (Warner 2017).

unfold. Though there is no international framework to address climate-related protection gaps for migrants, whether they are displaced within their home countries (as most currently are) or outside their national borders, the brief pointed out that the Paris Agreement could be “a touchstone against which the global community can assess, and therefore plan for, climate trajectories and possible scenarios that include the large movement of people over time.”<sup>14</sup>

## LOSS AND DAMAGE

Some panelists said that forced climate migration would amount to cultural genocide, raising the topic of “loss and damage.” This is defined as the scenario in which adaptation to climate change is not possible, either because its impacts are too severe to overcome (for instance, sea-level rise submerging a low-lying atoll), or because the resources to adapt—financial or otherwise—are not available.

The UNFCCC breaks down “loss and damage” into two categories: economic and noneconomic. Economic losses refer to the loss of resources, goods, and services that can be traded in markets. Examples include property, infrastructure, tourism, or agriculture products. These goods can be valued monetarily and are therefore easier to compensate and insure. Noneconomic losses refer to all other “goods” that are not (or cannot be) traded in markets, such as culture, language, indigenous knowledge, ecosystem services, health, and even life itself.<sup>15</sup>

In their deliberations, participants did not arrive at a consensus on how to value, account, or compensate for loss and damage in SIDS. Some participants, however, framed noneconomic losses and damages in SIDS as the loss of global public goods—such as ecosystems and biodiversity—that serve all of humanity. They argued that policies should go to the lengths necessary to protect global public goods from climate change impacts.

<sup>14</sup> Ibid.

<sup>15</sup> “Loss and Damage,” United Framework Convention on Climate Change, accessed May 2022: [https://unfccc.int/sites/default/files/resource/Online\\_guide\\_on\\_loss\\_and\\_damage-May\\_2018.pdf](https://unfccc.int/sites/default/files/resource/Online_guide_on_loss_and_damage-May_2018.pdf)



*Perry World House Visiting Fellows Koko Warner and Zinta Zommers take part in the conversation on preparing for impacts of climate change.*

## KEY TAKEAWAYS FOR POLICYMAKERS

### Addressing Climate Impacts

Finance emerged as a main policy avenue for both stemming and responding to the worst impacts of climate change. Participants noted that, in SIDS, the discussion often focuses on financing adaptation; however, resources for mitigation are crucial to keeping global warming below 1.5 degrees Celsius and giving SIDS a chance at survival. Discussants agreed that mitigation and adaptation finance must scale simultaneously, so that SIDS can undertake adaptation actions while the developed world works to reduce emissions and, therefore, warming.

Panelists expressed that providing realistic, sufficient, and acceptable climate finance would mean reassessing the current \$100 billion annual goal for climate finance as agreed under the UNFCCC. Many discussants noted the inadequacy of this funding goal, citing that it is not based on calculated need, serves only as an indication of

political will, and was not met by 2020, the agreed deadline. *The Climate Finance Delivery Plan*, a report led by the United Kingdom, estimates that the \$100 billion per year goal will be met by 2023.<sup>16</sup> Meanwhile, the UN Environment Programme estimates the costs of adaptation for developing countries will be approximately \$140–\$300 billion per year by 2030 and \$280–\$500 billion per year by 2050.<sup>17,18</sup> Citing global outlays of “\$6 trillion in fossil fuel subsidies and over \$2 trillion in military spending,” participants emphasized that climate finance should be in the trillions of dollars and on par with other critical global government expenditures.

The panel concluded that providing more generous and accessible climate finance is in the common interest, as it is cheaper and more effective to invest in climate solutions now than it will be to repair climate-driven destruction later. They underscored the need to increase innovative financing mechanisms, like the MVI, to access concessional financing, as well as the need for finance that would not require SIDS to be bankable or that would increase their current debt burdens.

16 “Climate Finance Delivery Plan: Meeting the US\$100 Billion Goal,” accessed May 2022: <https://ukcop26.org/wp-content/uploads/2021/10/Climate-Finance-Delivery-Plan-1.pdf>

17 United Nations Environment Programme, “Adaptation Gap Report 2021 Key Messages,” accessed May 2022: [AGR21\\_KMEN.pdf\(unep.org\)](https://www.unep.org/adaptation-gap-report-2021-key-messages)

18 United Nations Environment Programme, “Adaptation Report 2021, The Gathering Storm,” accessed May 2022 <https://wedocs.unep.org/handle/20.500.11822/37284>.



## Migration

Participants also discussed policies to address the various scenarios under which migration within and across borders would occur. Some noted IPCC findings that climate risks depend more strongly on changes in vulnerability and exposure than on differences in emissions scenarios in the near term. They recommended, therefore, focusing on reducing specific socioeconomic vulnerabilities in SIDS as a way to enhance adaptive capacity. Generally, discussants agreed that people could not return to dangerous places, and therefore contingency measures for various climate scenarios were needed, especially for people faced with decreasing options. They noted that strong development planning, especially investments in health, education, and social cohesion, could help counter the loss of culture if migration from homelands were required.

At the intersection of climate-driven impacts and migration, panelists discussed the possibility of employing forecast-based systems to reduce human suffering. A brief written for the workshop by Zinta Zommers detailed recent successes with this approach, which pre-positions and then releases funds in advance of severe climate events, so communities can take action to minimize anticipated shocks. According to the brief, approximately 2.2 million people across Somalia, Ethiopia, and Bangladesh have been reached through anticipatory action. OCHA has finalized anticipatory action frameworks for Bangladesh, Burkina Faso, Nepal, Niger, the Philippines, and Malawi, which will provide \$58.5 million of prearranged finance for humanitarian action. It was pointed out that this approach could be extended and scaled to support SIDS' adaptive capacity and response to climate-related disasters.<sup>19</sup>

Overall, panelists highlighted the need for climate-informed coordination and planning. At the national level, this would mean implementing policies that accounted for varying climate scenarios and brought climate science into national planning across ministries. Participants also recommended building resilience through development and mainstreaming climate action across all levels of governance.

## Loss and Damage

Panelists thought that it was crucial to acknowledge the value of “noneconomic losses and damages” from all cultures and places, but they did not agree that assigning monetary (or market) values to such goods was the way forward. Approximately half of respondents to the colloquium survey remained neutral about or disagreed with placing an economic value on intangibles like culture or ecosystem services that may be lost to climate change impacts, while the other half strongly agreed with this prescription.



### QUESTIONS FOR FUTURE RESEARCH:

**How can noneconomic loss and damage be further defined so as to support insurance and, to the degree possible, recompense?**

**What might a formal international mechanism to protect climate migrants look like?**

**What are the peace and security risks associated with climate change scenarios where migrants cannot return to their countries of origin?**



*Perry World House Senior Faculty Fellow and Director of Postgraduate Programs Michael Weisberg moderates the panel on preparing for the worst impacts of climate change.*

<sup>19</sup> Zinta Zommers, “Addressing Climate Risk in Small Island States—Opportunities for Action,” SDG Knowledge Hub, 2022: <https://sdg.iisd.org/commentary/guest-articles/addressing-climate-risks-in-small-island-states-opportunities-for-action/>.

**PART TWO:**  
**BUILDING RESILIENCE**  
**IN THE FACE OF**  
**CLIMATE CHANGE**



To further discourse on preparedness, the remaining two colloquium panels focused extensively on resilience building. They discussed how urban centers, where large numbers of people reside, could adapt to climate-driven challenges, and they investigated how island biodiversity, energy, and green livelihoods might be future-proofed.

Panelists discussing urbanization included Nikhil Anand, associate professor of anthropology, University of Pennsylvania; Michelle Mycoo, professor of urban and regional planning, University of the West Indies, St. Augustine; and Ambassador Brian Christopher Manley Wallace, ambassador and permanent representative of Jamaica to the United Nations. Meanwhile, the panel addressing natural resource sectoral resilience featured Shobha Maharaj, independent researcher and *IPCC Sixth Assessment Report* lead author on islands; Kalim Shah, assistant professor of energy and environmental policy and director of the Island Policy Lab at the Biden School of Public Policy, University of Delaware; Nicole Leotaud, executive director, Caribbean Natural Resources Institute; and Musonda Mumba, senior advisor, UN Decade on Ecosystem Restoration.

*Opposite page: A collage looking back at the two days of the colloquium.  
Public event photos by Eddy Marengo.*

## PANEL THREE

## > RESILIENT URBANIZATION IN THE CARIBBEAN

**Urbanization is a growing challenge for SIDS, especially in Latin America and the Caribbean, which is among the most urbanized regions in the developing world, on par with that of high-income countries.<sup>20</sup> Of the sixty-five million people living in SIDS today, thirty-eight million (59 percent) already live in urban settlements,<sup>21</sup> and five SIDS' cities host a population of over one million inhabitants: Port-au-Prince (Haiti), Santo Domingo (Dominican Republic), Havana (Cuba), Kingston (Jamaica), and Singapore.<sup>22</sup>**

Though urbanization is a current phenomenon, SIDS' colonial history featured heavily in participant discourse on the topic. Panelists recounted how, in the Caribbean, urban planning was an expression of colonial needs. Infrastructure design put colonial interests over community development and disregarded nature. With most Caribbean SIDS comprising narrow strips of coast with mountainous interiors, colonial powers built cities at the water's edge. As a result, most urban areas are now especially vulnerable to environmental shocks, such as extreme storms and sea-level rise. Urban centers are also the source of foul environmental impacts. For instance, streets originally constructed to provide harbor access become conduits for sewage and pollution, channeling them into waterways. Participants pointed out that the built systems do not meet local needs and encumber efforts toward more sustainable and equitable urban development. They also noted that redesign presents a huge challenge, especially in spaces where

there is no room to grow. The need for urban renewal that leverages new technologies and planning methodologies remains significant.

Colonialism also impacted land ownership and patterns of settlement in SIDS. In the Caribbean, large swaths of land set aside for imperial hegemony became government lands, and now they increasingly host informal and unregulated settlements. Approximately 20 percent of the populations of Jamaica and Trinidad have converged on these state or "crown" lands, resulting in squatter settlements spanning both urban and rural stretches. Participants noted that while these populations can and do build their own housing, they do not own the land and often build in ecologically sensitive areas prone to natural disasters like flooding, erosion, and landslides. Participants highlighted the need to bring such settlements into the decision-making process, engaging them in policymaking that decides zoning and building regulations.<sup>23</sup>

A brief written for the workshop by Michelle Mycoo further notes the links between citizen engagement and successful city planning. It states that "participation can improve the quality of urban policy and projects and provide support for shared visions; it is also a central element in monitoring the implementation of strategies, as it can ensure more sensitivity not just to the previously defined targets, but also to the evolution of what citizens expect from their shared space." The brief highlighted the "key ingredients of urban transformation," which many participants also touched on in their discussions. These include citizen activism, inclusivity, and good governance, as well as urban fiscal autonomy, effective climate change adaptation, and mitigation measures, among others.<sup>24</sup>

20 UN-Habitat, "Urbanization and Climate Change in Small Island Developing States," accessed May 2022: [https://sustainabledevelopment.un.org/content/documents/2169\(UN-Habitat.%202015\)%20SIDS\\_Urbanization.pdf](https://sustainabledevelopment.un.org/content/documents/2169(UN-Habitat.%202015)%20SIDS_Urbanization.pdf)

21 Ibid.

22 UN-Habitat, "Habitat-III: A High Level Event on Urban resilience and Sustainable urban development in Small Island Developing States," Accessed May 2022: <https://tinyurl.com/3uxhbsvj>.

23 Michelle Mycoo, "Building Urban Resilience in the Caribbean: Policies, Practices and Prospects," SDG Knowledge Hub, 2022: <http://sdg.iisd.org/commentary/guest-articles/the-terrestrial-island-biodiversity-conundrum/>.

24 Ibid.





*Colloquium participants listen to the panel on resilient urbanization.*



*Perry World House Senior Executive Director LaShawn R. Jefferson moderates the conversation between panelists and attendees.*

## KEY TAKEAWAYS FOR POLICYMAKERS

### Inclusive Design

Participants discussed how to address squatter settlements and informal housing. They noted that instead of evicting squatters, national and local governments are trying to integrate informal settlements into formal mechanisms that provide substantial infrastructure, services, and social facilities. They also highlighted that many SIDS' national adaptation plans increasingly include urban planning in efforts to deal with sea-level rise—for instance, revising building codes and providing government assistance to retrofit informal homes and structures. Participants underscored that governments are continuing to build subsidized housing away from hazard-prone areas and identifying lands where this can be done. National efforts are also taking place within the framework of the implementation of the New Urban Agenda in the Caribbean, which aims to improve urban growth and development in the region.

With regard to informal settlements the two basic policy recommendations included:

- Inclusive policymaking that engages marginalized communities and groups of people living in urban spaces; and
- Holistic approaches to bringing informal settlements and their economies into decision-making processes.

### Inclusive Frameworks, Expertise, and Data

As a policy caveat, panelists emphasized that urban planners need to rethink who counts as an expert and what counts as data. This concern surfaced in other colloquium discussions, with participants noting that Indigenous and local knowledge must be emphasized in urban and adaptation planning, and that Indigenous and local experts must be given a seat at the policymaking table. They further highlighted the importance of engaging with informal settlement communities as a critical part of building resilience and trust between policymakers and people living in those spaces.

Discussants noted, too, the importance of employing an integrated disaster risk management approach and having reliable information about vulnerabilities to use in hazard mapping, in order to enhance urban resilience to storms and other natural disasters. They noted that gaps in technology use and regulatory frameworks must be closed. Within government, they called for mainstreaming climate change mitigation and adaptation strategies into urban planning and including climate assessments in every new infrastructure project to assure an understanding of how climate change will affect the project, and vice versa. They highlighted specifically the need for improved data and human capacity to enhance the science-policy-practice interface.

### Fiscal Considerations

Participants cited access to finance as a barrier to resilient urban design and improvement in SIDS. They noted that urban centers needed greater autonomy from the state in deciding their fiscal priorities, and that this would underwrite longer-term urban planning, inclusive of climate challenges. Some pointed out that this would also help urban centers move away from reactive spending and toward strategic development planning.



### QUESTIONS FOR FUTURE RESEARCH

How can cities improve their access to the resources they need for adaptive and mitigatory climate action?

What are best practices for mainstreaming the use of climate data in decision-making processes across government ministries?

What is needed to support more community-based, inclusive urban design and climate planning?



*Nikhil Anand, Associate Professor of Anthropology at the University of Pennsylvania, speaking at the panel on urbanization in the Caribbean.*



*Stacy-ann Robinson asks a question during the panel.*

# > BIODIVERSITY, ENERGY, AND THE LOCAL GREEN ECONOMY

## BIODIVERSITY PROTECTION

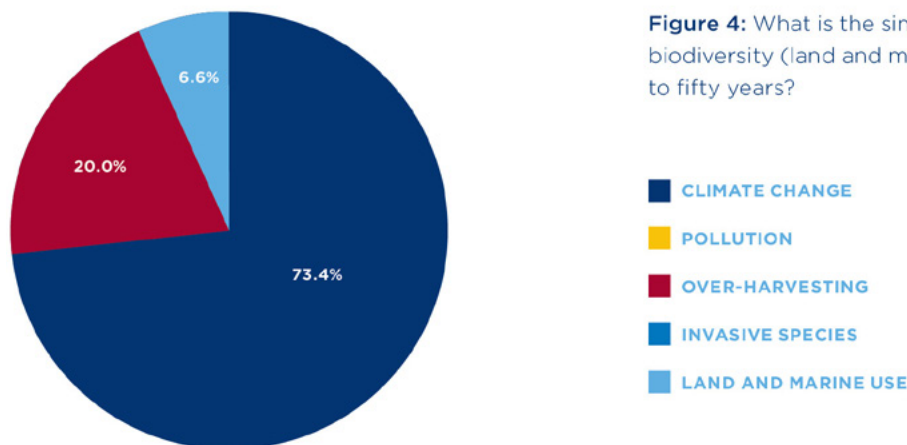
A brief written by Shobha Maharaj for the colloquium provided the backdrop for a discussion on terrestrial biodiversity conservation in the context of climate change. It notes that SIDS host 20 percent of global terrestrial species, which support medicine, livelihoods, food security, culture, and eco-security across the islands. Despite its importance, however, SIDS’ biodiversity remains under serious threat. Nearly 80 percent of global extinctions occur on islands, and almost 50 percent of island species are at risk of loss. The brief states that a key commonality, on islands especially, is that “limited resources imply that unconstrained habitat destruction and degradation cannot be sustained and will be to the detriment of both island communities and the local biodiversity upon which these communities depend.”<sup>25</sup>

According to the brief, climate change will soon surpass human interference as the biggest threat to SIDS’ species.<sup>26</sup> When surveyed, colloquium participants agreed. Nearly 75 percent of respondents indicated that

they believe climate change is the biggest threat to SIDS’ biodiversity over the next twenty to fifty years. Panelists pointed out that the future of global biodiversity is intrinsically linked to the adaptive and resilience capacities of island ecosystems, and they discussed what should be done to enhance protections for this critical resource.

## ENERGY

Energy is costly in SIDS, which pay on average forty to fifty cents per kilowatt hour (kWh) for electricity compared with, for instance, twelve cents per kWh for electricity in the United States. A brief drafted for the colloquium and discussed by Kalim Shah at the colloquium outlined the energy landscape in SIDS. It highlighted that fossil fuel importation composes a large part of SIDS’ national budgets, thereby decreasing state resources for social services, infrastructure, and climate adaptation overall. It noted also that the industries on which many SIDS rely for GDP growth—tourism, manufacturing, and agriculture—are themselves energy intensive.<sup>27</sup>



**Figure 4:** What is the single greatest threat to SIDS biodiversity (land and marine) over the next twenty to fifty years?

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

<sup>27</sup> Kalim Shah, “Renewables and Energy Transition in Small Island States,” SDG Knowledge Hub, 2022: <https://sdg.iisd.org/commentary/guest-articles/renewables-and-energy-transitions-in-small-island-states/>.



Nicole Leotaud, Executive Director of the Caribbean Natural Resources Institute, addresses the panel about “Local Green-blue Enterprises,” and the potential benefits they raise.



Colloquium participants listening to the panel discussion.

Against this backdrop, participants discussed the status of energy security in SIDS and what policies were needed to advance their energy independence. In his brief, Shah made the case that, in SIDS, renewable energy technologies combined with steadily improving energy efficiency could be transformational, but that the gap between fossil fuel dependency and more diversified, independent, and secure energy portfolios—or even full renewable transitions—remains significant. Participants considered how to close this gap while also building the energy sector’s resilience, which is its ability to recover from exogenous shocks like price fluctuations due to a pandemic or war, or from the natural disasters to which SIDS are prone.<sup>28</sup>

### LOCAL GREEN-BLUE ENTERPRISES

A brief drafted for the colloquium by Nicole Leotaud frames LGEs in SIDS as “a pathway to inclusive, sustainable and resilient economic development” in the Caribbean.<sup>29</sup> LGEs are formal and informal SMMEs

with business models relying on the use of terrestrial and marine natural resources. According to the brief, SMMEs, including many LGEs, comprise approximately 75 percent of businesses, contribute approximately 65 percent of GDP, and account for approximately 50 percent of employment in SIDS.<sup>30</sup> Many LGEs, the paper notes, are also stewards of the natural resources on which their business models depend. Leotaud’s brief contends that, because LGEs provide a “triple bottom line” of social inclusion and equity, environmental sustainability, and economic well-being, it is critically important to future-proof them to climate change and to engage them in climate and development policymaking.<sup>31</sup>

Discussants agreed that local people have a stake in what happens in their environment and that community-oriented micro-enterprises could drive climate adaptation and mitigation measures at the local level. They recommended giving a greater voice to the people most directly impacted by climate change and examined policies to support and engage LGEs.

28 Ibid.

29 Nicole Leotaud, “Local Green-blue Enterprises as a Pathway to Sustainable, Inclusive, Fair and Climate Resilient Economic Development in Caribbean SIDS,” SDG Knowledge Hub, 2022: [Guest Article: Local Green-blue Enterprises as a Pathway to Sustainable, Inclusive, Fair and Climate Resilient Economic Development in Caribbean SIDS | SDG Knowledge Hub | IISD](#)

30 Ibid. Statistics excludes informal small businesses, and therefore, the percentages are likely higher.

31 Ibid.



## KEY TAKEAWAYS FOR POLICYMAKERS

### Biodiversity

Participants emphasized the need to improve the integration of biodiversity work across marine and terrestrial ecosystems, as well as protected areas. They noted that conservation efforts must view island ecosystems holistically and work together to achieve common goals. Participants also highlighted the urgent need to improve the collection of, and access to, adequately downscaled data that could inform policymaking. In the context of climate change, they pointed out that current data did not project climate change impacts, thereby missing an opportunity to develop robust biodiversity conservation strategies.<sup>32</sup> As an example, they highlighted that the IPCC could not include SIDS in its diagrams of biodiversity threats because of the lack of baseline data, which in turn decreased SIDS' ability to leverage the findings for access to finance. To address this issue, panelists recommended a data stock take that would involve scientists on the ground as well as information gathering from local and Indigenous peoples. They concluded that such data is needed to effectively address adaptation in the biodiversity space, especially over the next decade.

### Energy

To achieve greater energy security (defined as energy availability, affordability, accessibility, and resilience), panelists recommended building out local renewable energy infrastructure. They highlighted several policy prescriptions to do so, including closing finance, technical, and regulatory gaps by building human capacity and addressing the “brain drain” phenomenon; building the capacity of local policymakers, utilities, private-sector, and financing institutions; increasing access to platforms to share information, knowledge, lessons learned, and best practices; and enhancing policy, regulatory, and advisory services for greater uptake of renewables.

To garner private-sector investment, panelists said that projects must be well structured and low risk, and islanders must know how to negotiate power purchase agreements. It was expressed that renewable projects in SIDS must be rapidly upscaled to make the islands truly energy resilient.



*Independent researcher Shobha Maharaj shares her insights on biodiversity and other topics discussed at this panel.*



*Simon Richter, Class of 1942 Endowed Term Professor of German at the University of Pennsylvania, moderates the conversation on biodiversity, energy, and the green economy.*

32 Ibid.

### Local Green/Blue Enterprises

Participants noted that government and nonprofit organizations should provide communities with sustainable, participatory, and empowering economic opportunities. To do so, it was suggested they be provided with enhanced business support and other services. Leotaud's brief calls for a coherent and strong policy framework to support LGEs, inclusive of a process for their formalization, which in turn could guarantee their certification, finance, and ability to adapt to climate change as well as other challenges. Toward this end, the paper and related discussion noted that climate-proofing works if it is implemented across the entire value chain of an enterprise. The brief cited concrete examples of how this has been implemented.<sup>33</sup>

Finance again emerged in discourse, with participants recommending strengthening partnerships with local organizations as a way to channel finance and resources to the local level of governance. They also recommended increasing the amount of financing available as well as improving the utilization of resources already available. Leotaud's brief calls for financial products tailored to LGEs' needs, as well as products like quasi-equity loans, credit guarantees, insurance, angel investing, and grants.



*The panel featured experts on SIDS and their relationship with climate change, including Perry World House Visiting Fellow Musonda Mumba.*



### QUESTIONS FOR FURTHER RESEARCH

**What steps can SIDS take to attract more investment in renewable energy projects?**

**What are the data and information gaps for small countries such as SIDS and how should they be addressed?**

**What mechanisms assure that LGEs' business services needs are met? What are best practices for bringing informal LGEs into the regular economy?**

<sup>33</sup> Ibid.

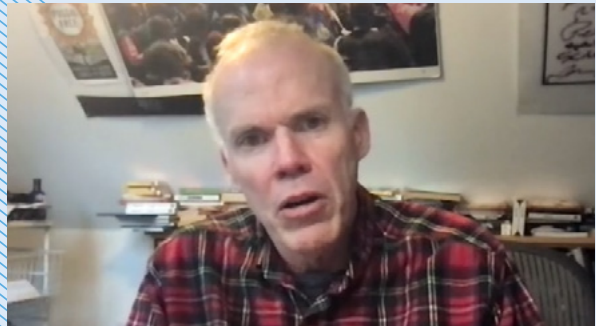
## ➤ AN ACTIVIST POET'S INSIGHTS

Following two other public keynotes featuring ambassadors from SIDS and ocean conservationist Fabien Cousteau, the colloquium closed with a virtual event featuring Kathy Jetñil-Kijiner, a Marshallese poet and climate envoy. Speaking with author and activist Bill McKibben, Jetñil-Kijiner discussed her perspectives and experiences as an Indigenous woman, artist, and climate negotiator in her home country and abroad. She described what it was like to see a king tide overtake her backyard, juxtaposing this against a UNFCCC process where she negotiated with the nations responsible for her country's precarious position.

The conversation returned almost always to the power of words: in poetry and the oral tradition of the Marshallese; in carefully constructed international agreements; as well as in those words meant to galvanize global action to stop climate change. Jetñil-Kijiner emphasized the language chosen to illustrate the depth of Pacific Islanders' steadfastness in the face of an existential threat:

“We’re not drowning;  
we’re fighting.”<sup>34</sup>

—Kathy Jetñil-Kijiner



*The colloquium concluded with a virtual conversation with Marshallese poet and climate envoy Kathy Jetñil-Kijiner, moderated by activist Bill McKibben and introduced by Perry World House Senior Executive Director LaShawn R. Jefferson.*

<sup>34</sup> Perry World House, “The Art of Climate Resilience with Kathy Jetñil-Kijiner,” filmed April 22, 2022: <https://www.youtube.com/watch?v=K16v0s8EZVo&t=1322s>.

# > CONCLUSIONS & POLICY HIGHLIGHTS

The 2022 Global Shifts Colloquium discussed a wide range of policy opportunities and obstacles confronting SIDS. Participants noted that many of the challenges SIDS face stem from their colonial past and their geographical constraints, and are now compounded by the recent and growing threat of climate change. Participants put forth an array of policy prescriptions for redressing SIDS' histories; preparing them for the worst of what global warming may bring; and supporting resilience-building in key sectors. Highlights from these policy-oriented discussions are summarized below.

## LAYING THE GROUNDWORK FOR RESTORATIVE JUSTICE

Given SIDS' varied colonial histories and the impacts of these histories on their current vulnerability to climate change, participants recommended a number of actions to lay the groundwork for restorative justice. Prescriptions included recognizing the contributions of colonial exploitation to SIDS' climate vulnerability, starting with formal and official apologies. They sought to ensconce climate policymaking in the historical context of current needs and to prevent climate change from furthering injustice. Policy recommendations also looked to employ a restorative justice framework—a bottom-up, community-oriented process that would depend on the participation of all stakeholders in deciding appropriate action and pathways forward.

## FINANCIAL RESOURCES

Colloquium participants repeatedly discussed the need for more financial resources to support mitigatory and adaptive climate action. Some of the policies they called for would drastically increase the flow of finances and resources to climate action in SIDS. They called for innovative financial mechanisms that would not grow SIDS' debt or other burdens. Some recommended scaling mitigation and adaptation finance simultaneously, so that SIDS can undertake adaptation actions while the developed world works to reduce emissions and, therefore, warming.

## BUILDING ADAPTIVE CAPACITY AND RESPONSE

Colloquium participants explored a number of topics related to building adaptive capacity and response that could stand up to the worst of climate impacts. They discussed how to anticipate and lessen the humanitarian burden of climate-driven disasters, especially as related to migration. Forward-looking policy recommendations could reduce socioeconomic vulnerabilities in SIDS and enhance adaptive capacity, with panelists noting that strong development planning could help prevent migration and loss and damage. Panelists also called for developing contingency measures to various climate scenarios—that is, for when the displaced can return home after disasters and when they cannot. The use of forecast-based systems (pre-positioned finance) was proposed as a way to reduce human suffering and improve disaster response. Some also noted the importance of policies to improve climate-informed coordination and planning at the national level, especially through the integration of climate science into national planning and across ministries. On the difficult subject of loss and damage, participants suggested as a first step, acknowledging the value, monetary or otherwise, of “noneconomic losses and damages” from all cultures and places.





### IMPROVING URBAN CLIMATE READINESS

A substantial discussion on the nexus of global warming and urbanization in SIDS elucidated a number of policy pathways for improving the climate readiness of cities. Key policy recommendations focused on improving the resilience of informal settlements. Panelists called for integrating informal settlements into formal decision-making processes; assuring their access to mechanisms that provide substantial infrastructure, services, and social facilities; and building subsidized housing away from hazard-prone areas. Other policy prescriptions focused on improving integrated disaster risk management, hazard mapping, and the mainstreaming of this data and climate change planning at all levels of government.

### BUILDING NATURAL RESOURCES RESILIENCE

Colloquium participants deliberated on how to build resilience across key natural resources sectors, specifically biodiversity and energy. They also discussed how the local green-blue economy could be climate-proofed so as to protect natural resources, as well as the livelihoods that sustain communities. A key policy recommendation was to improve the collection of and access to adequately downscaled data that could inform biodiversity and climate policymaking. Panelists called for a complete data stock take, involving scientists on the ground. To improve energy security in SIDS,

participants recommended enhancing policy, regulatory, and advisory services to encourage greater uptake of renewables. They cited roadmaps, resource assessments, grid stability analysis, and project planning as steps toward this goal. To support the LGEs, which steward natural resources and generate employment in SIDS, panelists suggested improving their access to business services and finance along with support for climate-proofing the entirety of their value chains.

### NEXT STEPS

SIDS are already bearing the brunt of severe climate change. Meanwhile, the industrialized countries responsible for this global predicament are not curbing their use of fossil fuels fast enough, and they are not sufficiently helping those most affected. What happens next is not at all up to SIDS. If the world warms beyond 1.5 degrees Celsius, as it is on track to do, some island countries will be wiped from the map while most others will be seriously impaired. The window for implementing the policy actions summarized in this report is quickly closing. If pledges are not kept and required actions further delayed, in a few years, climate change will have rendered the policy prescriptions put forth by this colloquium futile. Given the latest IPCC report, global policymakers should prepare for a conversation dedicated exclusively to “loss and damage,” because for some countries, there may be no “next steps.”

*Above: Ambassadors Thilmeeza Hussain, Satyendra Prasad, Brian Christopher Manley Wallace, and Walton A. Webson discuss the climate emergency with Perry World House's Michael Weisberg. Photo by Eddy Marengo.*

## > WHAT THE EXPERTS ARE READING

*Perry World House asked participants to name one book or article that scholars and policymakers should read on the topics discussed at the colloquium. Here is what they recommended.*

- Ali, Saleem H. *Earthly Order: How Natural Laws Define Human Life*. New York, NY: Oxford University Press, 2022.
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