



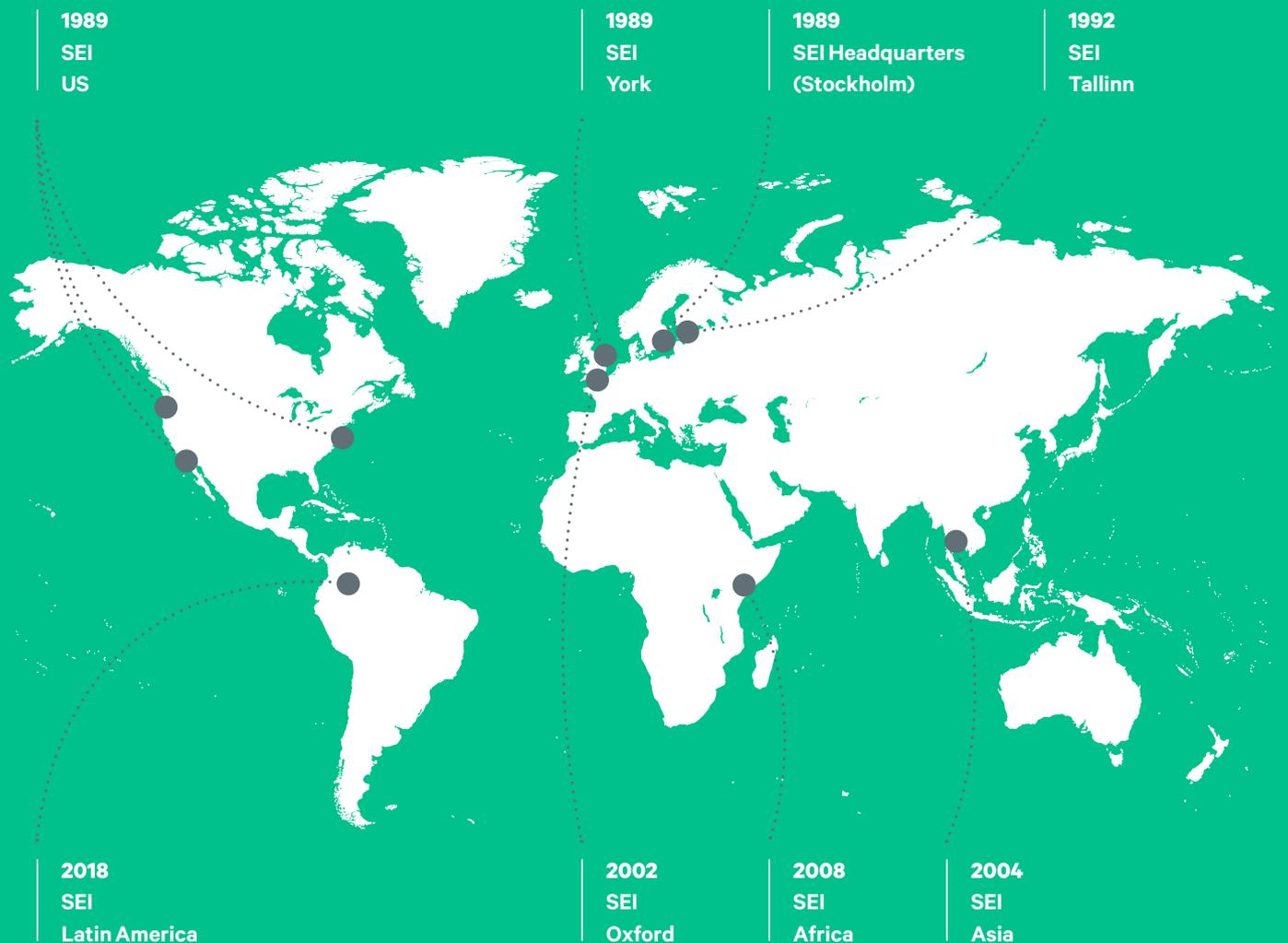
Stockholm
Environment
Institute

Leading a green recovery

Annual report 2020

Our centres: working and learning in partnership

SEI was an early mover in establishing regional centres around the world. Initially, SEI was located in Sweden, the UK and the US. Our centres ground us in local and regional realities and ensure we are responding to the right agendas and creating opportunities for long-term engagement. We build capacity by prioritizing local and regional staffing in all positions. Our aim is to add value to regional policy discourse and to be a trusted regional partner.



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The Stockholm Environment Institute is an international non-profit research and policy organization that tackles environment and development challenges.



Leadership perspective

An introduction from the Executive Director

At the beginning of 2020, we knew that we would operate in a challenging international political context, tackling trends of environmental degradation whose underlying drivers can seem so difficult to change. But, like everyone else, little did we expect that a global pandemic would hit and almost overnight alter so much of our work.

SEI's initial operational response – dealing with project planning, office logistics and staff issues – quickly extended into programmatic adjustments to ensure that the Institute was mobilized to assist in pandemic response and recovery around the world. SEI had many contributions to make on pandemic response and preparedness, in terms of exposure to the virus through water, sanitation and hygiene, and human vulnerability through air pollution, and on mitigating future outbreaks of disease via its origins in nature (see page 8). We also promoted effective public investment for recovery and “building back better”, for example by supporting low-carbon industry transitions in the LeadIT project.

During COVID-19 restrictions, SEI continued to function well operationally, delivering results across our programmes and centres. Under pandemic restrictions, our distributed centre structure, as well as our partnership approach, served us well: it meant we could continue our research and engagement around the world despite international travel being unfeasible (although most in-person engagements were still done remotely). Let me share a few examples.

SEI supported governments around the world in developing their Nationally Determined Contributions (their commitments under the Paris climate agreement) so that they can integrate action on air pollution with their climate change targets. In February, Mexico launched a national strategy which aims to reduce black carbon emissions by 51% by 2030. We also worked with Nigeria to produce a national 10-year plan that aims to reduce black carbon by 83%, methane by 61%, and CO₂ by 22%.

SEI worked with the East African Science and Technology Commission (EASTECO), the six East African Community (EAC) Member States (Burundi, Rwanda, Tanzania, Kenya, Uganda, and South Sudan), Ethiopia and other partners to develop a draft Eastern Africa Regional Innovation-Driven Bioeconomy Strategy, the first of its kind in Africa. This work, supported by the Bioinnovate Africa programme, is part of our expanding agenda on bioeconomy and bioresources strategy (see page 40).

In Southeast Asia, SEI worked with FAO to support the Lao PDR Ministry of Agriculture and Forestry in developing a Strategic Framework for Green and Sustainable Agriculture (see page 38). The strategic framework forms a cornerstone of the new revised Agricultural Development Strategy of Lao PDR, and has been incorporated into its upcoming five-year Socio-Economic Development Plan. Because of its key role in developing the framework, SEI Asia could directly influence the direction of policy in the agricultural sector towards more sustainable outcomes.

In Latin America, SEI was tapped as a knowledge partner for the implementation of Colombia's National Bioeconomy Strategy, based on a backcasting exercise on sustainable and equitable bioresource-based economic development in Colombia. Working with the Ministry of Science, Technology and Innovation, SEI will continue to implement regional political dialogues that seek to ground an aspirational national strategy in local realities. The end goal is to increase to 10% the contribution of the bioeconomy to Colombia's GDP.

In Eastern Europe, SEI led the first ever pan-Baltic research effort on post-consumer textile flows in Estonia, Latvia and Lithuania, aimed at generating

transparent data for the Baltics. The study led to a number of proposals for improving policy. The project also had a big impact in wider society – it was covered extensively in the media and featured in Baltic public discourse through interviews and discussion of the study and its data.

In our Carbon Inequality Era report (see page 34), issued jointly with Oxfam, SEI researchers showed that the carbon emissions of the richest 1% of the world's people produce more than double the emissions of the poorest 50%. The work drew widespread media coverage and was cited by many opinion leaders, including UN Secretary General Antonio Guterres, and helped to focus global attention on the importance of tackling both extreme inequality and the climate crisis.

Guterres also highlighted the findings in the second edition of the Production Gap Report, along with other key officials and opinion leaders such as Mary Robinson (former UN High Commissioner of Human Rights), Ricardo Lagos (former President of Chile) and Ayuba Wabba (President of the International Trade Union Confederation).

2020 was the first year of working with Think Sustainable Europe – a network of European think tanks that work in close partnership to engage more effectively with EU institutions. We established another formal partnership with UNEP via a Memorandum of Understanding, which outlines several areas of cooperation in the coming months and years, including starting up an assessment of the science-policy interface in preparation for UNEP at 50 in 2022.



Måns Nilsson
Executive Director

With a strong focus on impacts in specific areas, the strategy charts new routes forward while building on existing strengths.

2020 was also the first year of our new strategy – SEI Strategy 2020–24: Knowledge for Action. With a strong focus on impacts in specific areas, it charts new routes forward for SEI, while also building on existing strengths. The new strategy provides greater focus and clarity around where and how to invest core funds, and where to focus efforts in terms of grants and funding proposals.

Adding to our global leadership team, Dr Sarah West took on the role as Centre Director for SEI York, and Philip Osano was appointed Centre Director for SEI Africa, adding strong new skills, capacities and experiences to our global management team.

The ongoing stable growth of several of our programmes creates opportunities as well as challenges. So, in 2021, we will review and adapt the research organization at HQ in Stockholm, both to enable us to capture coming opportunities and to nurture our ability to innovate and help set new agendas in sustainable development policy and practice.

Leading for a green recovery

Last year at the end of February the world abruptly changed. How did SEI respond to COVID-19, and how is it contributing to a green recovery?

Alongside the profound feeling that the pandemic is a turning point in how we organize our societies and economies, it has injected further urgency into the need to tackle mounting environmental crises. It's also plain that COVID-19 has had a regressive impact all around the world on poverty, education and gender equality. The 2020 Goalkeepers Report, released by the Bill and Melinda Gates Foundation, finds that as a result of only the immediate government responses to contain COVID-19 the share of people in extreme poverty has increased drastically, vaccination rates in general have gone down, and development progress could be set back by a decade.

The upheaval of the pandemic also offers opportunities, because decisions made now on the ways in which the world builds back from the crisis can determine outcomes for decades to come. We can't afford to let these opportunities pass by, and we must not return to business as usual.

How did the tumultuous events of 2020 change our priorities as a research institute? Back in February we began an assessment of how the pandemic was affecting our work and how we could adapt our research and engagement to ensure we make an effective contribution to a sustainable and green recovery.

As we see it, the decision-making context can be divided into three phases. First, pandemic response: governments and development actors are still taking short-term, often drastic, measures to control the pandemic and tackle the economic and social consequences of these measures in the short term.

Second, recovery: governments and development actors must address the massive economic and social fallout from response measures at the same time as shifting focus onto pandemic preparedness.

And third, resilience: there is an urgent need to ensure that communities and societies are less vulnerable to future pandemics and environmental degradation (which are closely connected). To do so, robust plans must be laid for dealing with ongoing environmental crises in the medium and long term.

And it is clear that the phases are interconnected – measures taken in each will affect the success of efforts in the others. How did we recalibrate our work in 2020 to be relevant in these three interlocking phases?

Pandemic response

Water, sanitation and hygiene (WASH) services should be a first line of defence in the pandemic, and access to them is also critical for preparedness. But for many, existing challenges in gaining access to these services have increased vulnerability to COVID-19. Our SUMERNET team at SEI Asia swiftly engaged with regional decision-makers to make recommendations for ensuring clean drinking water and hand-washing facilities were available for vulnerable people in informal settlements during regional lockdowns.

Furthermore, inequalities in WASH access must be understood in order for measures to contain disease to be successful. In our project on gender and social equality in water sanitation and hygiene (WASH), SEI is using systematic review methodology to synthesize evidence on the gender and social equality outcomes of WASH interventions in low- and middle-income countries. The project outcomes will support practitioners to “build forward better”.

SEI's long experience of research on air quality is helping to improve understanding of how exposure to air pollution is likely connected to people's vulnerability to COVID-19, and what measures

can be taken to address this. And our history of research on household energy supports transitions away from biomass cooking fuels, with multiple benefits for human health and climate, as well as preparedness for future outbreaks of disease.

Green recovery

In terms of transitions away from fossil energy, we launched another issue of the influential Production Gap Report (see page 20) at the end of 2020. It speaks specifically to major changes underway in energy markets – and in government responses to shore up or expand oil, gas, and coal production – linked to a green recovery from the COVID-19 pandemic.

Our work on air pollution also feeds into a green recovery: last year SEI worked with the Scientific Advisory Panel of the Climate and Clean Air Coalition on clean-air responses to COVID-19.

Bioeconomy strategies and plans aimed at developing sustainable production methods for biological resources include using biological resources to develop pharmaceutical products to combat the pandemic. Last year we co-developed a Regional Bioeconomy Strategy for East Africa (see page 40) and the national Biomass Energy Strategy for Rwanda.

We also work to strengthen sustainable agriculture (see page 38) for example where it is important to grasp opportunities offered by the COVID-19 recovery to build more food-secure and resilient rural societies.

The SEI-hosted SIANI Programme last year led debate on how the COVID-19 experience could help create a food secure world through transformative structural change.

SEI stepped up its engagement in the steel, cement, mining and heavy road transport sectors, for example in the LeadIT initiative. In the wake of the pandemic there are clear opportunities for public recovery funds to target sustainable outcomes, and last year we worked actively on green recovery policies and finances by hosting forums on the European Green Deal and the recovery.

Resilience

Our work to improve unsafe sanitation systems helps to strengthen the resilience of communities, not least in a pandemic. We focus on inclusive WASH services, which reduce exposure to COVID-19 among marginalized groups and those especially at risk.

COVID-19 has also highlighted the importance of climate change adaptation and managing disaster risk and vulnerability. As our analysis made clear, extreme weather events have aggravated the impacts of the pandemic. As Cyclone Amphan hit India and Bangladesh, it forced people from their homes and left them flocking to safe areas – a situation in which it was nearly impossible to observe social distancing or basic hygiene measures.



In terms of sustainable lifestyles and consumption, SEI explored how, in richer countries, COVID-19 appears to have accelerated a movement toward more localized supply chains and changed patterns of travel, which can both help reduce the spread of viruses and strengthen communities' resilience. And the pandemic has affected perceptions and norms at the household level – a reset experience caused by the lockdown is opening a window for more sustainable local decision-making, preferences, lifestyles and behaviours.

Robust organization

What about our ability to work productively and continue to deliver? Our organizational priorities have been to ensure the well-being and safety of our employees and keep our operations running as smoothly as possible. As 2020 wore on many of our staff came under increasing strain, particularly in locations with stricter lockdowns. At the same time, we and our partners were able to adjust and cope remarkably well. A few features of SEI's approach and set up played into this. First, SEI's work is grounded in our distributed centre structure across Europe, North and South America, Africa and Asia. This has allowed us to be responsive to changing realities on the ground. Second, all our work is carried out in collaboration with partners, and through them we can continue to work in countries and regions that, for the moment, our staff are unable to reach. Third, we built on investments

made in 2019 in ICT to make creative use of technology, both internally and in our research and engagement, taking the opportunity to find new ways to use technology for training, seminars and workshops.

No doubt there are still major uncertainties ahead. But as we move into 2021 and glimpse hope that society will soon open up, we're confident that, with our driven and creative people and a resilient organization, we have a solid platform to make a meaningful contribution to a sustainable and green recovery.

SEI's work is grounded in our distributed centre structure across Europe, North and South America, Africa and Asia. This has allowed us to be responsive to changing realities on the ground.



Expert view: sanitation, COVID-19 and climate

Handwashing and hygiene have been thrust to the fore during the pandemic. But deeper, integrated thinking is needed for lasting solutions to the crisis in sanitation – and to prevent and prepare for disease in the future. Plus, we can no longer afford to overlook the links between climate action and sanitation. SEI experts Sarah Dickin, Kim Andersson, Linus Dagerskog, Carla Liera and George Njoroge reflect on a turbulent year for the sector.

Q. What were the main challenges and opportunities for the WASH sector in 2020?

Sarah Dickin: The COVID-19 pandemic has led to a growing focus on safe water, sanitation and hygiene (known as WASH services). The importance of WASH services in preventing transmission of disease was recognized in a World Leaders' Call to Action on WASH. But it must be noted that billions are still without access to these services, and the poorest and marginalized are the most affected. Progress towards SDG 6 (clean water and sanitation for all) is significantly off-track and slowed down by challenges such as climate change and lack of investment. COVID-19 adds another challenge, as the pandemic is projected to slow down investments in the water sector globally.

Kim Andersson: As Sarah says, the challenge is enormous, with at least 3 billion people that do not have access to basic handwashing facilities and 2.3 billion people who lack a basic sanitation service. However, a recent study shows that responses to COVID-19 have rarely included promoting sanitation, instead focusing on the urgent need to provide improved handwashing.

But this approach favours single-track investments in water supply, which can risk negative health impacts if wastewater is not adequately handled. Evidence shows that it is only when we improve on all the three dimensions – water, sanitation and hygiene – that we can efficiently block the spread of waterborne disease. COVID-19 has also highlighted how disruption in supply chains caused by things like transport bans or energy shortages can threaten our supply of basic necessities like food and water. Yet WASH waste flows are greatly undervalued and actually comprise a huge potential to strengthen local food and energy security. At SEI we are working on different WASH approaches and tools that can address these challenges.

Linus Dagerskog: One lesson from the COVID-19 pandemic is how novel zoonotic diseases can spread from close contact between humans and animals and cause emerging disease outbreaks with immense consequences. However, in the shadow of the more spectacular outbreaks, we tend to overlook the high ongoing burden of endemic zoonotic diseases that infect billions of people every year, mainly in low- and middle-income countries. In these regions

zoonotic diseases have been estimated to cause 26% of the total infectious disease burden, compared to less than 1% in high income countries. Over the past few years, several studies have questioned the effectiveness of conventional water, sanitation and hygiene interventions in reducing child diarrhoea and stunted growth in low- and middle-income countries. Some have suggested that zoonotic disease, especially from exposure to animal excreta, plays an overlooked role, and that there should be a conceptual shift in the WASH concept, so that the “A” in WASH should stand for “animals” (Water, Animals, Sanitation, and Hygiene) highlighting the need to include animals and their excreta in more integrated WASH interventions.

In our work we are applying a “One Health” approach, and examining this new ambition for WASH, because animals and their excreta can impact human, animal, and environmental health, and contributions from all these sectors are needed to find appropriate and sustainable solutions. A One Health approach to WASH would also highlight the links between WASH interventions and environmental health, and emphasize safe animal and human excreta recycling to maintain fertile soils and avoid pollution of ground and surface water.

Around half of all households in Africa and Southern Asia have domestic livestock, often kept in close proximity to where people live. As many of these households also have poor access to WASH services and engage in small scale farming, a One Health approach could unlock multiple benefits. What is needed are holistic frameworks and tools that can turn theory into practice, and we hope our

Clean and Green framework for rural sanitation, which we are currently piloting in Burkina Faso, can be a successful example.

Q. COVID-19 has been hugely regressive in terms of social equity and gender equality. How have you been tackling this in your work?

Carla Liera: Access to WASH is characterized by large inequalities, particularly gender inequalities and, yes, COVID-19 exacerbates these challenges. As we are all aware by now, good hygiene practices, including frequent handwashing with soap, are key to preventing the spread of COVID-19 and other diseases. However, this is only possible when water and soap are reliably available and affordable.

We are currently conducting case studies on vulnerable populations and COVID-19 in Uganda, Kenya, Ghana, Mexico and Brazil.

SEI is leading an assessment of how COVID-19 has created barriers to WASH access for people experiencing homelessness in Mexico City. We are working with El Caracol, a Mexican NGO that contributes to the visibility and social inclusion of homeless people, to try to understand the barriers that the homeless population faces when accessing WASH services. Because this population is already struggling to follow many WHO recommendations, they are also enduring the indirect impacts of COVID-19. The closure of public toilets, drinking fountains, restaurants, malls and street businesses has caused big problems in meeting water and hygiene needs, and current restrictions have forced





many to find alternative solutions, such as open defecation and consumption of unsafe water. While access to these services was already restricted for the homeless population, due to social stigma and economic barriers, the pandemic has reinforced and increased these constraints.

We aim to make sure that, as we move back into normal life, the needs and rights of the most vulnerable are addressed in both policy and decision-making. We hope that this will eventually help us build back stronger and more inclusive WASH services and policies that help advance the aim of leaving no one behind.

(Above) George Njoroge at a conference in Nairobi in 2019.

(Below) Carla Liera collecting information on barriers to menstrual hygiene management in Mexico City in 2019.



Q. In many cases, governments have taken rapid action on WASH in response to COVID-19. How has accountability in WASH services changed in the wake of the pandemic?

Sarah Dickin: Achieving the Sustainable Development Goals is underpinned by good governance, which includes transparency, accountability and participation. So, decision-making to ensure universal access to water and sanitation must be “fair and inclusive, honest and transparent, accountable and free of corruption” (The Delft Statement on Water Integrity). This is particularly important in light of COVID-19, where so many rapid decisions have been taken. Together with partners in Sanitation and Water for All (SWA – a global partnership of governments, donors, civil society organizations and other development partners working to coordinate high-level action) we assessed the extent of “mutual accountability”, that is the extent to which stakeholders are holding each other accountable for progress towards SDG 6. Six countries were involved in our study, including Kenya and Peru, where SEI took the lead on case studies. We examined the effectiveness of accountability mechanisms and multi-stakeholder partnerships at the national level, and the results will inform SWA’s strategy for strengthening partnerships to support governments in achieving their WASH targets.

George Njoroge: In our study in Kenya, we examined how the pandemic has awakened stakeholders to the reality of the underlying weaknesses in the WASH sector, including weak accountability. We also identified

various ways that stakeholders have increased their accountability to each other. Among these were forums, both online and in person, that enabled coalitions of stakeholders to hold the government and each other accountable. We also saw increased civic engagement on issues and challenges experienced during the pandemic. Delegates in various online forums made a strong case for vulnerable populations to be provided with safe water to survive COVID-19 and lockdown restrictions.

At the same time, it was reported that in some government departments involved in WASH interventions there have been contraventions of the Public Procurement and Disposal Act. This has led to heightened scrutiny of government decisions, actions, and expenditure. Civil Society Organizations in the sector readjusted their advocacy strategies to focus on emerging accountability challenges. KEWASNET and the Water Integrity Network in particular worked to hold the county governments accountable on the effective use of COVID-19 relief funds.

To help tackle accountability issues in the sector, our research pointed to the need for a cross-sectoral platform that can bring together different stakeholders, from government, civil society, the donor community, the private sector and academia to promote mutual accountability. Our findings will be taken forward by SWA, and will be part of a package to strengthen implementation of SWA's Mutual Accountability Mechanism tool in Kenya.

Q. What do you see as the key challenges for sanitation, post-pandemic and beyond?

Sarah Dickin: We need to ensure that safe, equitable and sustainable sanitation is part of the building back better narrative, because it is vital to resilience in the face of future pandemics and shocks. We see many opportunities in sanitation to build back better, in terms of contributing to climate action as well as preventing



Sarah Dickin at a workshop in Asutifi, Ghana, in 2019.

future disease outbreaks and promoting health and wellbeing. For instance, sanitation is an essential service critical to reducing vulnerability, whether to climate change impacts such as floods or pandemics and cholera outbreaks. However, as we make progress in addressing the substantial gap in safely managed access to sanitation, this progress must be climate resilient and equitable to ensure no one is left behind.

Kim Andersson: Sanitation is actually responsible for an important share of the greenhouse gases emissions, especially of nitrous oxide and methane. Wastewater management accounted for 7% of global methane emissions in 2010 and is estimated to reach 28% in 2030. Research shows that there are major mitigation opportunities in the sector, and we are working to reveal important gaps in awareness and knowledge about the emissions from sanitation systems. We reviewed climate policies around the world and the extent to which they included sanitation, using the NDC-SDG Connections tool developed by SEI and the German Development Institute. The study revealed that there is major neglect of the links between sanitation and climate action, because only 2% of activities listed in countries' climate commitments related to SDG 6 (Clean Water and Sanitation) covered sanitation (target 6.2), and only 3% covered wastewater management (target 6.3). Analysis of the project proposals approved by the Green Climate Fund (GCF) show a similar gap: less than 0.025% of GCF funding (up to 2019) supported sanitation-related work. It is urgent that ambition in the SDGs to close the access gap in sanitation also includes action on climate.

Kim Andersson, SEI HQ. Field work at the Naivasha Lake in Kenya.





SEI in 2020

Highlights in research, policy and engagement



2020

January

SEI named as world's top environment think tank

SEI began 2020 in strong fashion when it was ranked as the world's top environmental think tank in the University of Pennsylvania's 2019 Global Go To Think Tanks Index. This marked the ninth year in a row that SEI has been ranked as one of the top two think tanks in the world working on environment and sustainability policy.
www.sei.org/featured/sei-worlds-top-environment-policy-think-tank

February

Ground-breaking research calls for end to fossil fuel subsidies

SEI research, published in the journal *Nature*, illustrated the effects of fossil fuel subsidies and why their removal is vital to a low-carbon transition. Responding to a 2018 study, the authors argue that fossil fuel subsidies are delaying a low-carbon transition and eliminating them is even more important than previously thought in tackling the climate crisis.
www.sei.org/featured/fossil-fuel-subsidies-impede-paris-agreement

Knowledge sharing with the UN to improve food security policy

SEI experts joined Senior UN officials from UN agricultural organizations in dialogue at an IFAD-hosted event in Rome. The roundtable was held to discuss how agricultural sectors can adapt to climate change and manage to produce enough to feed the world's growing populations. Through presentations on various strands of research and initiatives, SEI experts equipped officials with key insights on how to take more effective action on this urgent problem.
www.sei.org/featured/un-food-and-agriculture-agencies-set-to-learn-from-sei-on-climate-adaptation-and-risk-management

Creating online spaces for dialogue on COVID-19

As the COVID-19 outbreak spread rapidly across the globe, causing significant disruption to everyday life, SEI quickly adapted to the unprecedented changes by moving its events online and hosting a series of webinars. SEI brought together experts from various fields and backgrounds to discuss the future of sustainable development in light of the COVID-19 pandemic. The panellists explored how to bring about a sustainable, just and resilient recovery from the disruption wrought by the pandemic. The webinars drew in hundreds of participants around the world and proved to be among the most viewed items on SEI's website.

www.sei.org/events/webinar-the-geopolitics-of-covid-19-and-climate-change

New SDG Synergies website helps bridge science and policy

SDG Synergies is an approach pioneered by SEI to help decision makers deliver on the 2030 Agenda's 17 Sustainable Development Goals. Designed by SEI researchers, the SDG Synergies website is a practical tool for understanding how groups of policy areas and targets interact. The website launch marked an important step in SEI's goal to develop new tools to address sustainable development challenges; namely, getting the SDGs back on track.

www.sei.org/featured/sei-launches-sdg-synergies-official-website

Memorandum of understanding signed with UNEP

SEI signed an MoU with UNEP's Science Division to deepen and formalize the long-standing collaboration at the science-policy interface. SEI currently contributes to several UNEP initiatives, including the annual Production Gap Report, a regional assessment of climate and clean air in Africa, a report on the science-policy interface ahead of UNEP@50, climate adaptation research and environmental diplomacy training.

April

LEAP2020 launched to help low emission development planning

SEI released a major new version of LEAP, its flagship software system for integrated planning of energy, climate change mitigation and air pollution abatement. LEAP has been adopted by thousands of organizations in more than 190 countries worldwide. Its users include government agencies, scientists, non-governmental organizations, consulting firms and utilities. The new version, LEAP2020, introduced several new features, making it more accessible than ever to planners working on sustainable energy solutions.

www.sei.org/events/webinar-leap2020-a-major-new-version-of-seis-platform-for-low-emission-development-planning

May

June



Trase Finance brings transparency to financing of deforestation

Since SEI and its partner, Global Canopy, launched Trase in 2016, it has brought a new level of transparency to the trade in agricultural commodities driving tropical deforestation. But the global financing of this billion-dollar trade has remained opaque. To resolve this, SEI, Global Canopy, and Neural Alpha developed a ground-breaking new data initiative, Trase Finance, which brings unprecedented transparency to the financing of tropical deforestation. The tool was used as part of an early-adopter programme by banks, asset managers and civil society organizations, and is already helping independent initiatives working on creating greater transparency on the financing of deforestation. www.sei.org/featured/trase-finance-preview/

Breaking paths for alternative energy in Rwanda

In Rwanda, SEI's LEAP platform helped bring together stakeholders from various sectors so that they could understand current trends of biomass demand and develop the country's Biomass Energy Strategy. Collaborating partners included Rwanda's Ministry of Infrastructure (MININFRA), Rwanda's Forestry Department, the UN Food and Agriculture Organization, the European Union and the Belgium Development Agency (ENABEL). SEI also built capacity by training local technical experts to maintain and add their own scenarios to the LEAP model, and to monitor and verify progress towards the achievement of the strategy. Commenting on the initiative, Stephen Bihinda, a Senior Renewable Energy Engineer with MININFRA said, "I am glad that we are all ... working towards developing the Rwanda Biomass Energy Strategy ... we would like our technical experts to be trained on LEAP for future use".

July

Energy policy tracker launched to assist post COVID-19 recovery efforts

SEI and 14 expert organizations from around the globe launched the Energy Policy Tracker, a unique database showcasing ongoing research into COVID-19 recovery packages from a climate and energy perspective. The massive stimulus spending in the wake of the pandemic offers a chance for governments to use their recovery packages to accelerate the clean energy transition. Updated weekly to reflect changes in the world, the Energy Policy Tracker offers a near real-time snapshot of international progress on this transition. www.sei.org/projects-and-tools/projects/energy-policy-tracker

August



“Addressing the disproportionate carbon emissions from the wealthiest in society must be a key priority as part of this collective commitment.”

Former UN Secretary-General, Ban Ki-moon comments on the Oxfam-SEI report on the Carbon Inequality Era

September

Reducing business air travel emissions in simple steps

Business travel, particularly by air, often makes up by far the largest part of the carbon footprint of organizations like SEI. SEI's report Prepare for Landing offered practical advice to organizations on how to reduce the emissions linked to their business travel, and introduces a new business travel decision-support and reporting tool for organizations aiming to reduce their business travel footprint. www.sei.org/publications/prepare-for-landing

Towards more circular management of textile waste in the Baltic region

SEI Tallinn, together with Baltic and Nordic partners, embarked on a research project on the used household textiles and textile waste situation in the Baltic region. The study mapped and measured post-consumer textile flows in the Baltics and made policy proposals for how to create a more circular textile system. The work was widely covered in regional media, and the findings will also feed into actioning EU targets: from 2025 onwards, EU member states are obligated to collect textile waste separately from other waste flows. www.sei.org/featured/watch-the-video-what-happens-to-used-textiles-in-estonia-latvia-lithuania

Shedding light on the era of carbon inequality

A hard-hitting report from Oxfam and SEI revealed that the richest 1% are responsible for twice as much carbon emissions as the poorest half of the world's population (see page 34). The findings gained widespread attention – from major media outlets, key policymakers, and prominent influencers – and have already inspired follow-up research, analysis, and tools. Commenting on the findings, former UN Secretary-General, Ban Ki-moon, said, “Addressing the disproportionate carbon emissions from the wealthiest in society must be a key priority as part of this collective commitment.” www.sei.org/publications/the-carbon-inequality-era

The first UN International Day of Clean Air for Blue Skies

The first UN International Day of Clean Air for Blue Skies took place against the backdrop of the pandemic. This meant the event took on added importance in raising awareness of the urgency of addressing air pollution at the global level. As the world looks at how to recover from COVID-19, a significant challenge is how to rebuild the global economy in the most resilient and environmentally sound way. Through a webinar attended by policymakers, and a detailed policy briefing, SEI provided policy advice and outlined steps for addressing air pollution, health and climate change in a post-COVID world. www.sei.org/about-sei/press-room/addressing-air-pollution-to-tackle-health-and-climate

Advising the UN on progress on Agenda 2030

The UN Secretary General António Guterres appointed SEI Research Director, Åsa Persson, to the scientific group to inform progress of the SDGs. Persson is one of fifteen scientists from around the world chosen to prepare the 2023 UN Global Sustainable Development Report (GSDR). The appointment represents a substantial milestone for SEI's impact goal to improve decision-making on climate change and sustainability at the highest level.

www.sei.org/featured/asa-persson-appointed-to-the-independent-group-of-scientists



October



Production Gap Report identifies pandemic as a potential turning point

Continuing the work from last year's groundbreaking report, the 2020 Special Issue of the annual Production Gap Report focused on the implications of COVID-19 on the production gap, a metric that measures the discrepancy between countries' planned production of coal, oil, and gas and the global levels consistent with Paris Agreement temperature goals. Despite there being a dip in fossil fuel production this year caused by the lockdown measures, pre-COVID plans and post-COVID stimulus measures all point to a widening of the production gap. The report outlined areas of action, giving policymakers feasible options to start winding down fossil fuels in COVID-19 recovery plans.

www.sei.org/publications/production-gap-report-2020

November

LeadIt Leadership Summit enables collaboration on industry transition to net zero carbon emissions

SEI hosts the Secretariat of LeadIt – the Leadership Group for Industry Transition. Ahead of the fifth anniversary the Paris Agreement, LeadIt's first Leadership Summit focused on how public and private sectors could work together to honour the pledges made in the Agreement. At the summit, the governments of Australia, Denmark, France, Germany, India, Luxembourg, the Netherlands, Sweden and the UK joined together with CEOs of major international companies to commit to making the business case for industry transition. www.sei.org/projects-and-tools/projects/leadership-group-for-industry-transition-leadit

The Production Gap Report outlined areas of action, giving policymakers feasible options to start winding down fossil fuels in COVID-19 recovery plans.

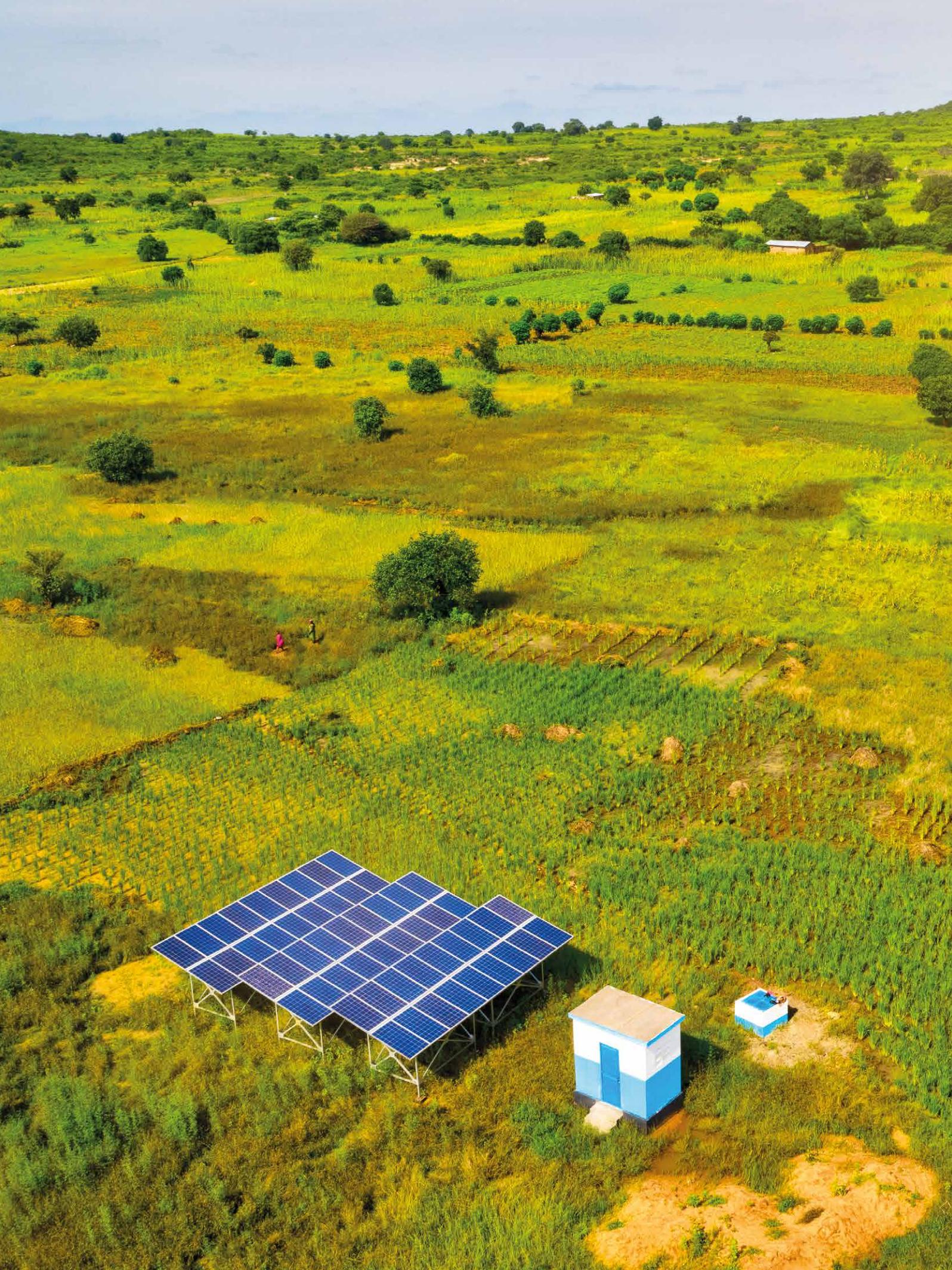
December

Sustainable Development Forum

Co-organized by SEI Tallinn, the 10th Sustainable Development Forum focused on cities and human settlements in a changing climate. Participating experts from Estonia and elsewhere shared knowledge on how to achieve climate neutrality in Estonia at the local level. The Forum provided an excellent way to combine the most important goals of the EU's climate policy with Estonia's local challenges and encouraged politicians to work towards meaningful election programmes ahead of the 2021 local elections. www.sei.org/events/sustainable-development-forum-2020

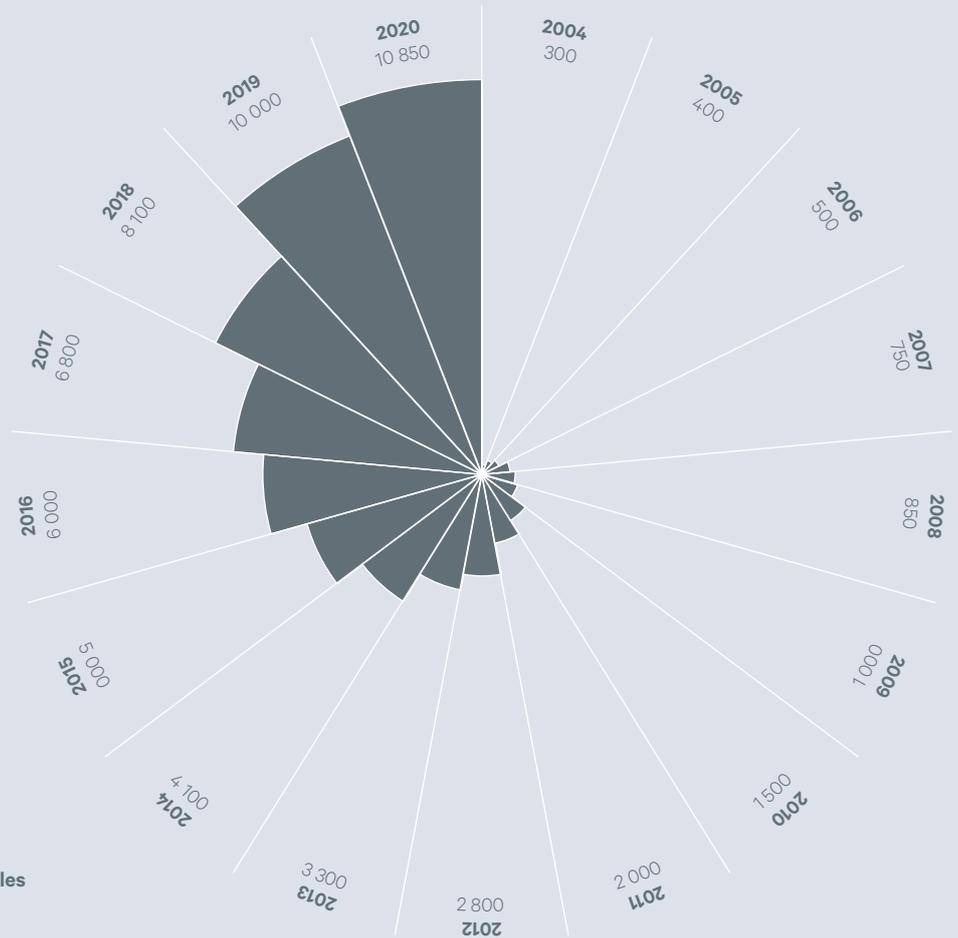
ASEAN harnesses SEI flagship tool to produce 6th Energy Outlook

The Association of Southeast Asian Nations' (ASEAN) sixth edition of its flagship Energy Outlook report was based on a bottom-up model developed within SEI's LEAP. The report examines how the ASEAN region can meet the energy needs of its growing economy from now until 2040, while also promoting a sustainable energy supply, encouraging greater innovation, and addressing key regional priorities. 2020 was the first year that report was developed entirely in-house by the modelling team at the ASEAN Centre for Energy (ACE), with SEI's LEAP team providing assistance and advice. www.sei.org/featured/asean-uses-sei-flagship-tool-to-produce-6th-energy-outlook



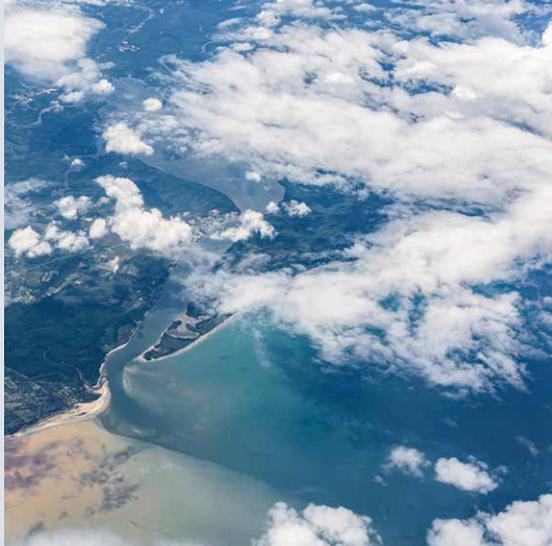
Scientific impact in 2020

Evidence is the bedrock of our engagement with decision-makers, and 2020 showed our performance in high quality scientific publishing again exceed the previous year, with more papers published in top tier journals. Last year our researchers published more than 160 peer-reviewed articles, and our citation rate also increased substantially compared with 2019, from 9652 to 10 850 (see graphic). Below is a selection of 10 of our most impactful and significant journal articles published in 2020. The selection was made based on a combination of how often the papers have been cited, their Altmetric attention score, and the impact factor of the journal they were published in.



Citations of peer-reviewed articles with SEI authors, 2004–2020.

Source: Web of Science.



On fossil fuel subsidies and the Paris Agreement

This article in *Nature* explains how subsidies affect fossil fuel investment and why they deserve greater attention in global modelling analyses. Fossil fuel subsidies are delaying a low-carbon transition and deserve greater attention in global modelling analyses, according to a new article in *Nature* from SEI scientists and fellow researchers. The article shows how the removal of subsidies can prevent new fossil fuel projects by rendering them uneconomic. The authors find that removing even a single type of subsidy could reduce global oil consumption by 440 million to 770 million barrels in 2030, and conclude that fossil fuel subsidies are an even bigger impediment to reaching the Paris Agreement goal than was previously thought.

Erickson, P., van Asselt, H., Koplow, D., Lazarus, M., Newell, P., Oreskes, N. and Supran, G. (2020). Why fossil fuel producer subsidies matter. *Nature*. online 5 February 2020. <https://doi-org.ezp.sub.su.se/10.1038/nature25467>

On improving the practice of evidence synthesis

Rigorous identification of evidence is essential for systematic reviews and meta-analyses (evidence syntheses) because the sample selection of relevant studies determines a review's outcome, validity and explanatory power. Yet the search systems allowing access to this evidence provide varying levels of precision, recall, and reproducibility and also demand different levels of effort. Based on an investigation of the systematic search qualities of 28 widely used academic search systems, including Google Scholar, PubMed and Web of Science, the authors call for database owners to recognize the requirements of evidence synthesis and for academic journals to reassess quality requirements for systematic reviews with the aim of helping researchers conduct better searches for more scientifically robust results.

Gusenbauer, M. and Haddaway, N.R. (2019). Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed and 26 other resources. *Research Synthesis Methods*. <https://dx.doi.org/10.1002/jrsm.1378>

On planetary boundaries

The planetary boundary framework presents a “planetary dashboard” of humanity's performance on a set of environmental issues that endanger the Earth system's capacity to support it. While this framework has been highly influential, in its current form it does not represent how impacts related to one planetary boundary affect the status of other planetary boundaries. In this article, the authors provisionally quantify the interactions between the Earth system processes represented by the planetary boundaries and investigate how these impact on sustainability governance. The authors identify a dense network of interactions between the planetary boundaries, and show that the resulting cascades and feedbacks mostly serve to amplify human impacts on the Earth system and thereby shrink the safe “operating space” for humanity.

Lade, S.J., Steffen, W., de Vries, W., Carpenter, S.R., Donges, J.F., Gerten, D., Hoff, H., Newbold, T., Richardson, K. and Rockström, J. (2019). Human impacts on planetary boundaries amplified by Earth system interactions. *Nature Sustainability*, 3, 119–128. <https://doi.org/10.1038/s41893-019-0454-4>

On options for reducing greenhouse gas emissions from consumption

Around two-thirds of global greenhouse gas emissions are directly and indirectly linked to household consumption, with a global average of about 6 tCO₂eq/cap. Changes in consumption patterns to low-carbon alternatives therefore present a great and urgently required potential for emission reductions. In this article the authors synthesized emission mitigation potentials across the domains of food, housing, transport and other consumption by systematically screening 6990 records in the Web of Science Core Collections and Scopus. The authors conclude that the top 10 consumption options together yield an average mitigation potential of 9.2 tCO₂eq/cap, indicating substantial contributions towards achieving the 1.5–2°C target.

Ivanova, D., Barrett, J., Wiedenhofer, D., Macura, B., Callaghan, M.W. and Creutzig, F. (2020). Quantifying the potential for climate change mitigation of consumption options. *Environmental Research Letters*. <https://dx.doi.org/10.1088/1748-9326/ab8589>



On socio-technical transitions

In this study the authors present and apply an interdisciplinary approach that systematically draws qualitative insights from socio-technical transition studies to develop new quantitative scenarios for integrated assessment modelling. The authors developed two contrasting transition narratives on the role of actors in meeting the European Unions' 80% greenhouse gas emission reduction objective for 2050. Although both transition pathways align with the European Union's low-carbon objective for 2050, the authors find that each pathway depicts a substantial departure from systems that are known to date. Future research could focus on further systematic (joint) development of operational links between the two analytical approaches, and on improved representation of demand-oriented solutions in techno-economic modelling.

van Sluisveld, M.A.E, Hof, A.F., Carrara, S., Geels, F.W., Nilsson, M., Rogge, K., Turnheim, B., van Vuuren, D.P. (2020). Aligning integrated assessment modelling with socio-technical transition insights: An application to low-carbon energy scenario analysis in Europe. *Technological Forecasting and Social Change*. 151. <https://doi.org/10.1016/j.techfore.2017.10.024>

On the “bad apples” of Brazil’s agribusiness

Rajão, R., Soares-Filho, B., Nunes, F., Börner, J., Machado, L., Assis, D., Oliveira, A., Pinto, L., Ribeiro, V., Rausch, L., Gibbs, H. and Figueira, D. (2020). The rotten apples of Brazil's agribusiness. *Science*, 369(6501). 246–48. <https://science.sciencemag.org/content/369/6501/246/tab-article-info>

On demographics and farming in Asia

Rigg, J., Phongsiri, M., Promphakping, B., Salamanca, A., and Sripun, M. (2020). Who will tend the farm? Interrogating the ageing Asian farmer. *The Journal of Peasant Studies*. 47, 2. <https://doi.org/doi:10.1080/03066150.2019.1572605>

On how to double conservation of tropical aquatica species

Leal, C.G., Lennox, G.D., Ferraz, S.F.B., Ferreira, J., Gardner, T.A., Thomson, J.R., Berenguer, E., Lees, A.C., Hughes, R.M., Mac Nally, R., Aragão, L.E.O.C., de Brito, J.G., Castello, L., Garrett, R.D., Hamada, N., Juen, L., Leitão, R.P., Louzada, J., Morello, T.F., ... Barlow, J. (2020). Integrated terrestrial-freshwater planning doubles conservation of tropical aquatic species. *Science*, 370(6512), 117. <https://doi.org/10.1126/science.aba7580>

On better climate change scenarios

O'Neill, B.C., Carter, T.R., Ebi, K. et al. Achievements and needs for the climate change scenario framework. (2020). *Nature Climate Change*. 10, 1074–1084. www-nature-com.ezp.sub.su.se/articles/s41558-020-00952-0

On partnering with locals to track air pollution in Kenya

West, S.E., Büker, P., Ashmore, M., Njoroge, G., Welden, N., Muhoza, C., Osano, P., Makau, J., Njoroge, P. and Apondo, W. (2020). Particulate matter pollution in an informal settlement in Nairobi: Using citizen science to make the invisible visible. *Applied Geography*, 114. 102133. <https://doi.org/10.1016/j.apgeog.2019.102133>



Funding sources

As an independent research and policy organization, SEI receives funding from a wide variety of sources, including government departments, development agencies, non-governmental organizations, businesses, academic and research groups and financial institutions. We are grateful to the following funding partners for their support in 2020.

305.0m

Total

104.9m

Sida

34m

Swedish Ministry of the Environment via Formas

20.3m

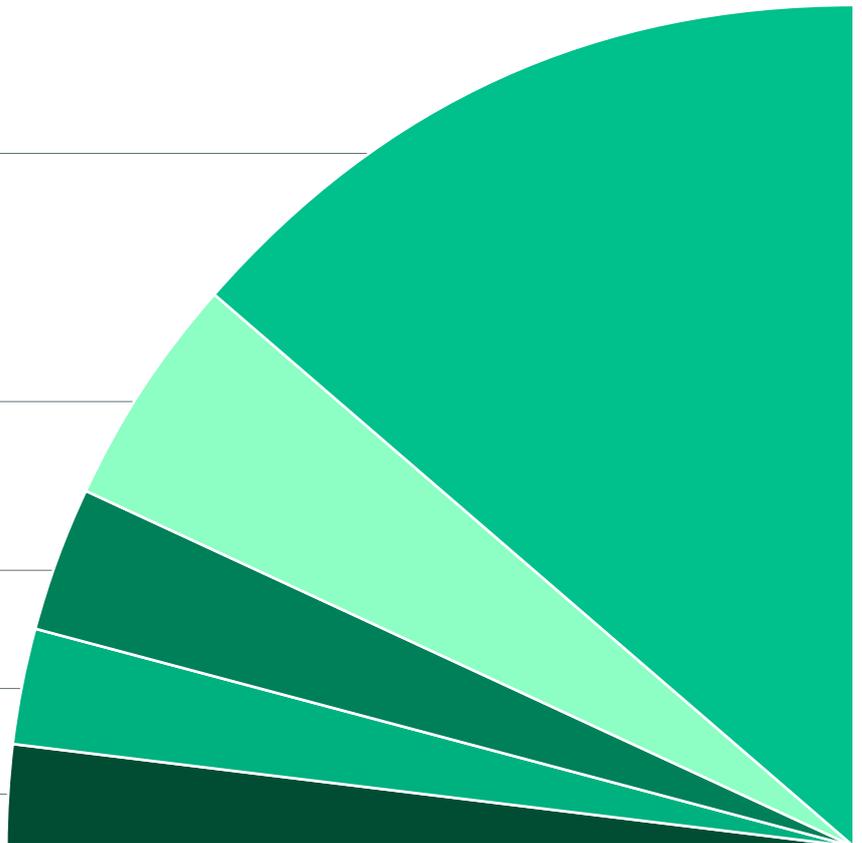
NICFI at the Norwegian Ministry of Climate and Environment

16.8m

Swedish Research Council Formas

12.3m

Swedish Foundation for Strategic Environmental Research (Mistra)



Total funding and top five funders. All figures are in SEK millions.

Funding sources above SEK 50 000

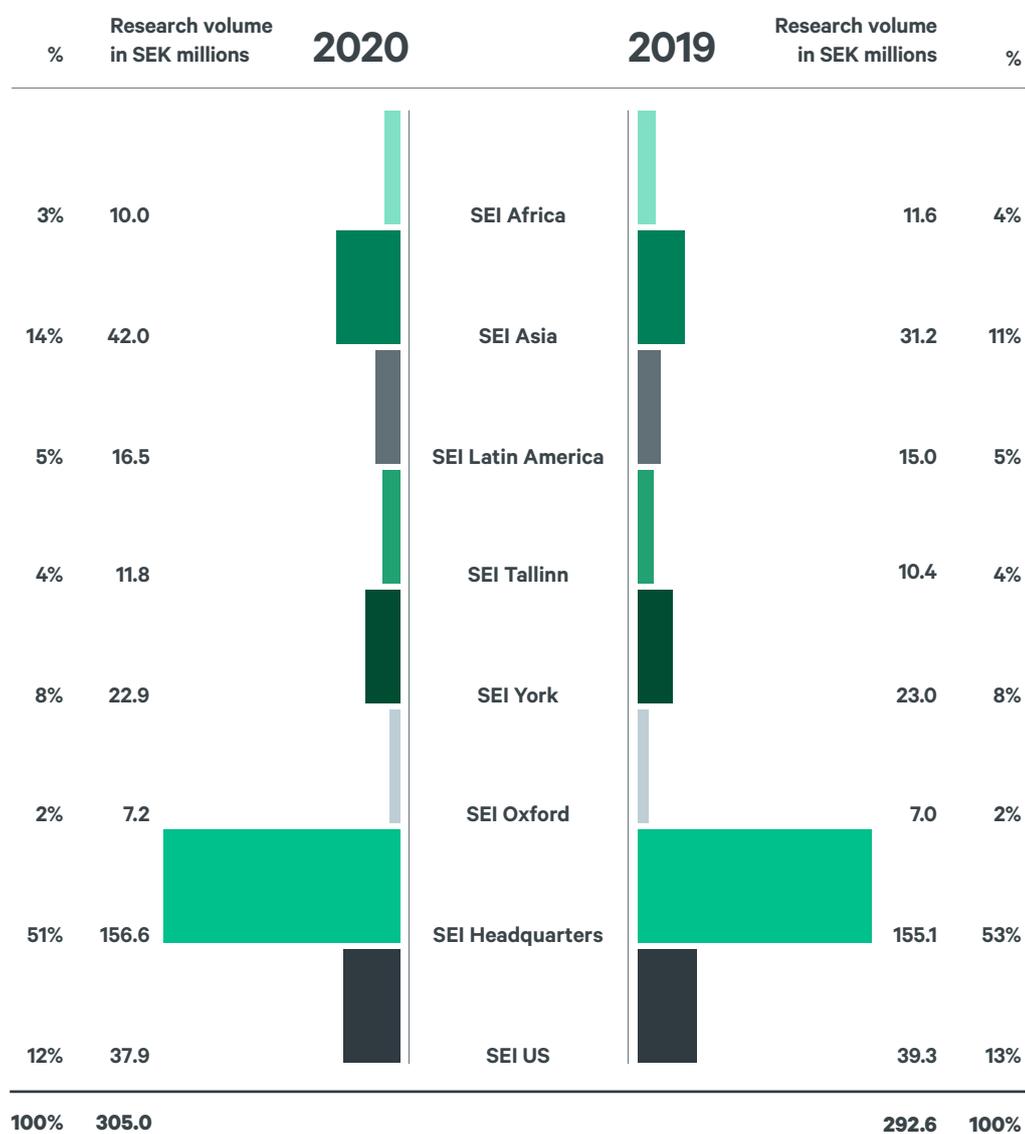
Abt Associates	749 707	Hospital of the University of Tartu	93 821
Africa Development Fund	768 115	Humanist Institute for Co-operation with Developing Countries (Hivos)	226 721
Africa Enterprise Challenge Fund	289 130	Informa UK Limited	275 000
Asian Development Bank	77 769	Institute for Governance and Sustainable Development (IGSD)	578 395
Asian Disaster Preparedness Centre (ADPC)	1 592 732	Inter American Development Bank	697 676
Asian Institute of Technology (AIT)	140 899	International Development Research Centre (IDRC)	119 274
Belmont Forum	457 695	International Institute for Sustainable Development (IISD)	244 079
Bill and Melinda Gates Foundation	1 911 426	International Organization for Migration (IOM)	190 680
BioInnovate Africa	368 369	IRDR	173 000
Bonus EEIG	2 136 679	Korea Environment Institute (KEI)	419 247
Brown University	409 430	KR Foundation	2 596 949
California Dept of Water Resources	1 254 887	Larry Walker Associates	537 827
California State Water Resources Control Board	2 941 894	Lincoln Institute	237 142
Ceres	383 268	LTS International	103 943
City of Tallinn	401 372	Marianne and Marcus Wallenberg Foundation	1 933 088
Clean Energy Transitions Institute	490 448	Minderoo Foundation	518 426
Climate Equity Reference Project	442 184	Ministry for an Ecological Transition	264 750
Climate KIC Holding BV	195 102	Ministry of Economic Affairs and Communications Estonia	192 659
Corpochivor	140 435	Ministry of Infrastructure and Water Management, The Netherlands	533 724
Department for International Development (DFID)	1 991 799	National Institutes of Health (NIH)	137 978
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	4 487 212	Natural Resources Defense Council (NRDC)	99 901
Enterprise Estonia	193 301	Net Positive	61 379
Estonian Association for Environmental Management (EKJA)	64 621	Network of African Science Academies	228 318
Estonian Ministry of the Environment	1 332 211	NordForsk	514 178
European Climate Foundation	361 240	Nordic Climate Facility (NCF)	85 545
European Commission	10 681 281	Nordic Council of Ministers	238 247
European Research Area for Climate Services (ERA4CS)	1 701 457	Norwegian Ministry of Climate and Environment (NICFI)	20 328 549
Fabege	76 500	NSF via University of Michigan	66 803
Food and Agriculture Organization of the United Nations (FAO)	2 725 687	Oxford Policy Management	946 392
FORTE Swedish Research Council for Health, Working Life and Welfare	92 096	Rochester People's Climate Coalition	214 001
GHG Management Institute	1 120 905	Royal Roads University	69 141
Global Challenges Research Fund (GCRF)	276 203	Santa Clara Valley Water District	1 451 675
Global Environment Facility (GEF)	1 529 639	Schmidt Family Foundation	1 637 720
Gordon and Betty Moore Foundation	7 524 840	Stand.Earth	245 658
Government of Nepal	120 860	Stockholm University	59 500
Green Technology Center	134 370	Sun24 Foundation	113 003
Hendrikson ja Ko OÜ	100 343	Sustainable Markets Foundation	900 746
High Tide Foundation	122 133		

Swedish International Development Cooperation Agency (Sida)	104 862 986	UK Central Government	594 202
Swiss Agency for Development and Cooperation	682 356	UK Charities	358 297
The African Academy of Sciences (AAS)	550 485	UK Research Councils	6 331 414
The Moorland Association	198 485	UN Environment Programme (UNEP)	6 007 736
The Nature Conservancy	64 068	UN Women	936 159
The Swedish Civil Contingencies Agency (MSB)	897 354	UNCTAD	595 873
The Swedish Energy Agency	2 125 895	UNICEF	171 000
The Swedish Environmental Protection Agency	2 171 724	UNIDO	287 911
The Swedish Foundation for Strategic Environmental Research (Mistra)	12 309 604	United Nations Development Programme (UNDP)	493 418
The Swedish Ministry for Foreign Affairs	4 629 499	United Utilities Water Ltd	357 776
The Swedish Ministry for the Environment	10 313 950	Universidad del Rosario	82 560
The Swedish Ministry for the Environment, via Formas	34 000 000	University of Oxford	169 851
The Swedish Research Council (Vetenskapsrådet)	696 769	University of York	160 478
The Swedish Research Council Formas	16 756 466	USAID	490 938
The Swedish Transport Administration	2 065 286	Vinnova (Sweden's innovation agency)	4 157 111
The Tenure Facility	62 475	World Bank Group	1 204 949
The University of Sydney	58 813	World Health Organization (WHO)	818 041
Trinomics B.V.	120 412	World Resources Institute (WRI)	207 990
		World Wide Fund for Nature (WWF)	300 408
		Yorkshire Water	422 138



SEI financial statistics

SEI global (pro forma) income, by centre



SEI's focus is on building trust, empowerment, and working with partners to co-create knowledge, resulting in ownership of results and sustained action.



Strategy for change



SEI's new strategy focuses on three broad impact areas where we believe we can make a real impact, and under each area we've set out priorities for change. We deliver on these priorities by working with partners and stakeholders to change agendas, improve decisions and enhance capacities.

Last year SEI launched its new five-year strategy – just before the outbreak of COVID-19. We’ve reviewed our work in 2020 in light of how we’re delivering on our strategic aims, and the following pages present stories about our work during a turbulent period; a year in which we’ve continued to create change for a more sustainable world.

Back in 2019 when SEI was developing its new five-year strategy, it was already clear that what humankind does – or does not do – over the coming five to ten years will define sustainable development for decades to come. Then, as 2020 began and we were about to embark on putting our strategy into practice, the pandemic struck, upending economic and social orthodoxies and thrusting the world into uncertainty.

We were, like most, profoundly concerned about the impact of the pandemic on people’s well-being, and on societies and economies. At the same time, we were forced to ask difficult questions about what the upheaval would mean for the sustainable development agenda and our work: would the organization remain resilient? Would our strategy remain relevant?

Has our strategy proved fit for purpose?

Our strategy focuses on three areas for action that are of ongoing and crucial importance for the wider sustainability agenda – climate risk, the sustainable use of resources and resilient ecosystems, and human health and well-being. These themes are not new: they have been articulated quite consistently for more than 30 years in the discourse on sustainable development – in the Stockholm Declaration of 1972, the Brundtland Report of 1987, and the 2030 Agenda of 2015. Drawing on these declarations and the work of many others, and on our key strengths as an institute, we selected specific priorities for action under each of these overarching themes.

What we found was that the priorities we’ve chosen to address in the coming years are still very much relevant; if anything, COVID-19 and its fallout have made action in these areas more urgent. At the same time, the ongoing uncertainty around how the pandemic and its consequences will develop presents challenges in *how* to take action. There are great opportunities to make progress, but also a risk of powerful interests drawing the world back into business as usual.

Delivering on our strategy

Now more than ever the world needs bold political decisions, as well as major shifts in business practice,

The priorities in our strategy are of crucial importance for sustainability, and the pandemic has made it even more urgent to act on them.

government action, resource management and consumer behaviour. None of these will come easy, and there are huge barriers – institutional, social, cultural, economic – as well as a lack of robust, relevant and applicable knowledge.

In the following pages we present seven stories from 2020 that show how our knowledge, engagement and tools have contributed to making these changes happen. Each story demonstrates how we are delivering on our strategic agenda by working with our partners to co-create solutions and help them take effective action for sustainable outcomes. We are proud that last year our new strategy proved resilient and flexible, and that our work continued to bear fruit and drive change during a time of international crisis.

The graphic on the facing page represents the core aims in our strategy – it shows our three overarching impact areas; the specific priorities for change that are connected to each; and our three main outcome areas (the ways that we achieve impact) – by improving decisions, changing agendas, and enhancing capacity. In the following pages we use this graphic to show how the impact we’ve had fulfils the aims of our strategy: how each story aligns with our priorities for change and the outcome areas. Our work with authorities in Colombia, for example, has helped build capacity to enable the government to raise its climate ambitions and tackle health issues together (see page 36); our research with Oxfam has driven the issue of carbon inequality high up on the climate change agenda (see page 34); while our work with the Government of Lao PDR will help guide decision-making on agriculture towards sustainability.

We finalized our new strategy before the world was turned upside down by COVID-19. But we believe the following stories demonstrate that it has been resilient in the face of unexpected turbulence, and that in the coming years it will provide a robust framework to help us lead a green recovery.

Strategy in action

Priority for change

Transitions from fossil energy that address inequality, poverty and politics

This work examined two timely and high-profile issues – growing carbon emissions and increasing income inequality – and connected them to provide clear support for the need of an equitable transition from fossil fuels.

Type of outcome

Changing agendas

The research put the issue of carbon inequality into easy-to-grasp, stark terms, resulting in more than 2000 online and print articles. It also armed policymakers and key actors with data to call on the privileged to pull their fair weight in the race to limit warming to well below 2°C.

Delivering on our priorities



SEI and Oxfam shine light on the “carbon inequality era”

A report from Oxfam and SEI revealed that the richest 1% are responsible for twice as much carbon emissions as the poorest half of the world’s population. The work gained widespread attention – from major media outlets, key policymakers, and prominent influencers – and has already spawned follow-up research, analysis and tools.

This research shifted attention to a critical but often overlooked aspect of climate policy: equity. Not only does climate change affect the vulnerable and poor the most, it’s also been shown to deepen inequality, both within and between countries. The research took a subject that can seem abstract and put it into easy-to-grasp, stark terms, resulting in more than 2000 online and print articles. It also armed policymakers and key actors with data to call on the privileged to pull their fair weight in the race to limit warming to well below 2°C. Among those calling for action were UN Secretary-General António Guterres, who used the report’s findings in a TED talk, and tweets from Greta Thunberg, Bill McKibben, the UN Climate Summit office, former UN Secretary General Ban Ki Moon, and the UK Climate Champion Nigel Topping.

Effective partnership amplifies impact

SEI worked with Oxfam International as its partner and funder. SEI took the lead on the nuts-and-bolts research, which required an exploration of complex real-world relationships and a difficult underlying data set, combining global and national income inequality data with national consumption emissions from 117 countries. The resulting tool – called the Emissions Inequality Dashboard – allows users to explore the inequalities in CO₂ emissions across the world, linking emissions to income levels.

This work fed into the Carbon Inequality Era report, led by SEI with contributions from Oxfam, as well as a summary media brief (also released in Arabic). Oxfam, as in previous collaborations, took the lead on outreach, working with SEI to come up with timely and politically relevant framing, and using their high profile and global network to publicize the work, including a launch event

with former UN Secretary General Ban Ki Moon and Chair of the International Trade Union Confederation Sharan Burrows.

SEI and Oxfam have collaborated several times in recent years, and this set the foundation for a targeted, impactful result. The roles and strengths of the organizations complement each other, combining SEI's reputation as a research institute with Oxfam's global network and leadership on global poverty initiatives.

Oxfam's focus on policy impact and outreach also ensured that the research didn't get lost amid a crowded field. Clear messages, and policy-relevant data, were priorities throughout.

Global attention

The result was widespread media coverage, with more than 2000 online and print articles, including in major outlets such as the New York Times, Forbes (twice), The Guardian, The Times of London, and the World Economic Forum. Key actors in the international sphere shared the report and its findings on social media, and a SEI and Oxfam provided a briefing to members of Swedish ministries. The report was the year's most-read content on SEI's website.

Building on momentum

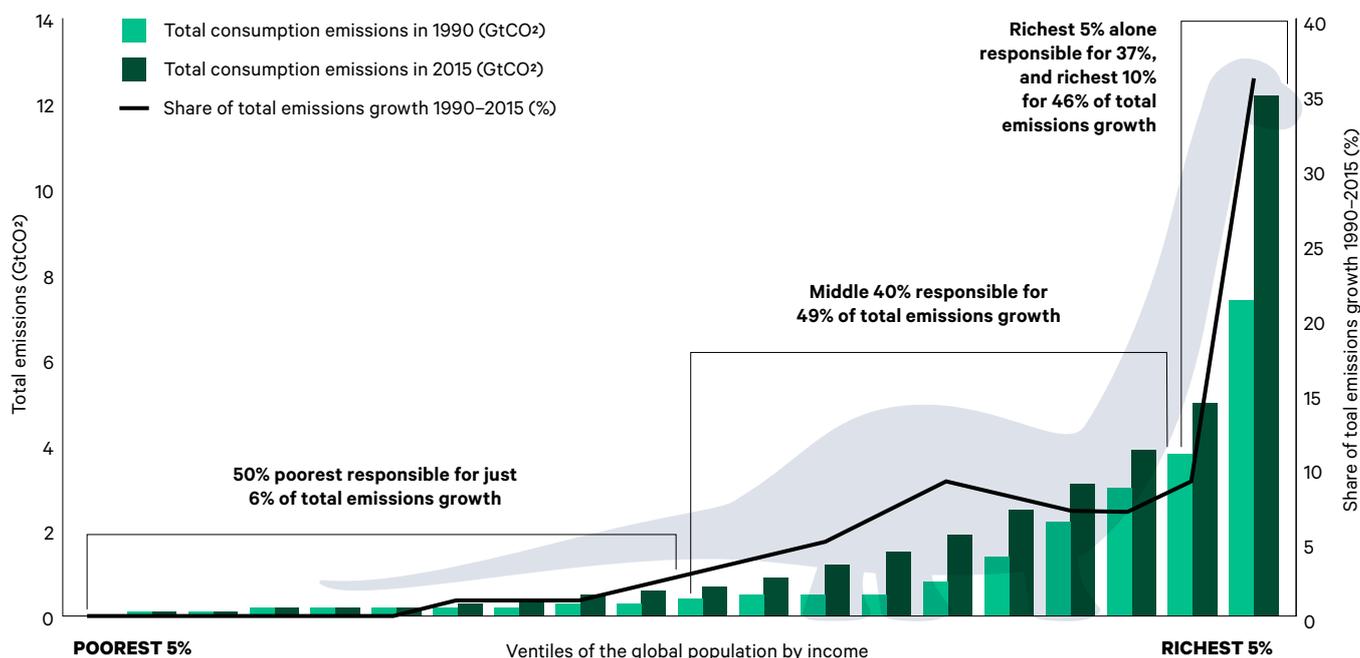
Spin-offs and follow-on work have already begun. SEI has already released the Emissions Inequality Dashboard, and is developing a country-level carbon inequality dashboard, as well as integrating this

Over the past 25 years, the richest 10% of the global population has been responsible for more than half of all carbon emissions, and the poorest 50% were responsible for just 7% of emissions. Rank injustice and inequality of this scale is a cancer. If we don't act now, this century may be one of humanity's last.

– UN Secretary General António Guterres, using research from the Carbon Inequality Report in his October 2020 TED talk *The Race to a Zero-emission World Starts Now*

data into the Climate Equity Reference Calculator. Oxfam released an EU report, and popularized a blog about carbon inequality in Sweden based on that report, which received attention from Greta Thunberg and others.

The research both acts as a spur to action and provides tools to support decision-makers in meeting the challenge of ensuring a more equitable distribution of the remaining, and rapidly diminishing, global carbon budget.



The carbon inequality “dinosaur” of emissions growth from 1990 to 2015.

Strategy in action

Priority for change

Government plans for low-carbon pathways with multiple benefits

The work in Colombia shows how long-term engagement with national partners can progress from developing capacity, to improving decision making, and ultimately to changing a policy agenda.

Types of outcomes

Changing agendas (1), Improving decisions (2), Enhancing capacities (3)

The inclusion of a specific and ambitious target to reduce black carbon in Colombia's climate target (NDC), alongside a commitment to reduce by 51% by 2030, consistent with full decarbonization by 2050, ensures that Colombia's climate change plans will achieve multiple, local benefits for the health of Colombians.

Delivering on our priorities



Better health through climate action in Colombia

SEI partnered with Colombia to raise the country's sights on climate change – and improve health – by setting an ambitious but achievable target to reduce black carbon.

SEI supported an integrated assessment of climate change and air pollution mitigation in Colombia, a process that resulted in the country expanding its climate commitment under the Paris Agreement with a significant black carbon emission reduction target. Setting this target, *alongside* a commitment to reduce greenhouse gases by 51% by 2030, means Colombia's climate change plans will substantially improve the health of its people.

Boosting climate change ambition in Colombia and improving air quality and health

To support Colombia in revising its nationally determined contribution (NDC) under the Paris Agreement, SEI helped the Colombian Ministry of Environment assess the air pollution benefits that would come from implementing national plans to reduce greenhouse gas emissions. The project evaluated additional mitigation options that specifically target major black carbon emission sources. Using SEI's LEAP (Long-range Energy Alternatives Planning) tool to quantify emissions of greenhouse gases and air pollutants, SEI held virtual workshops with the Ministry to demonstrate how LEAP could be applied to the analysis. The team held discussions with stakeholders in sectors that are heavy emitters of black carbon, which helped them evaluate and refine mitigation actions. These exchanges were facilitated by evidence from the modelling; in particular in estimating the health and environmental impacts of mitigation strategies.

The Ministry was encouraged by the findings, which showed important synergies between air quality and climate protection, and recommended the revised NDC include a black carbon target: cutting emissions 30% from 2014 levels. This advice was followed when President Iván Duque Márquez committed to reducing Colombia's greenhouse gas emissions by 51% and black carbon emissions by 40% by 2030 (compared to 2014).



The 51% goal more than doubles the greenhouse gas target in Colombia's first NDC (20%). Pairing it with the black carbon target will not only reduce black carbon, a component of particulate matter with impacts on respiratory and cardiovascular health, but will simultaneously reduce other pollutants when the measures to achieve the target (e.g. stringent vehicle emission standards and more efficient cookstoves) are put in place.

The value of long-term engagement with national stakeholders

SEI's work with Colombia underscores the importance of building long-term collaborations to promote effective decision-making. The black carbon target is the product of an eight-year partnership between the Ministry of Environment and SEI, which began with modelling of short-lived climate pollution in 2013. In 2016 and 2017, SEI supported the development of Colombia's first national black carbon emissions inventory. This output, and its review and endorsement by the Institute of Hydrology, Meteorology and Environmental Studies (IDEAM), provided a nationally recognized reference point against which a target could be set. In 2018, the Ministry published its first National Strategy on Short-Lived Climate Pollutants, a roadmap of steps and conditions needed to increase action on black carbon. These processes provided a foundation

The work in Colombia is a model for how countries can increase their climate change mitigation ambition by demonstrating synergies with sustainable development. Many countries, including Bangladesh, Costa Rica, Dominican Republic, Chile and Mexico, are now considering development benefits as they revise their Paris Agreement commitments.

of data, analysis, and expertise on the links between air pollution and climate change that made Colombia's announcement possible.

Next steps

A series of next steps are planned to realize the black carbon target. First, the team will conduct further LEAP modelling to identify further mitigation actions needed to achieve the enhanced goal (40% versus 30%) announced by President Duque. SEI will also work with the Ministry of Environment to develop materials, tools and approaches to help sub-national government authorities integrate the mitigation actions in their planning. This is a key activity as air quality is a devolved issue in Colombia, with responsibility for improvements delegated to sub-national agencies.

And In 2021, SEI will work with the Ministry of Environment and Ministry of Health, as well as the World Health Organization, to quantify the health and economic benefits that can be achieved from attaining the new NDC targets.

The experience in Colombia is a model for how countries can increase their climate change mitigation ambition by demonstrating synergies with sustainable development. Many countries, including Bangladesh, Costa Rica, Dominican Republic, Chile, and Mexico, are now following this example and considering development benefits as part of their NDC revision process, often with SEI's support. SEI is helping these efforts through its Initiative on Integrated Climate and Development Planning, which is providing improved methods, tools and models for quantifying connections between climate change mitigation and the Sustainable Development Goals.

President Iván Duque Márquez committed to reducing greenhouse gas emissions by 51% and black carbon emissions by 40% by 2030, more than doubling Colombia's previous greenhouse gas target.

Strategy in action

Priority for change

More productive, resilient and sustainable practices in the agricultural sector

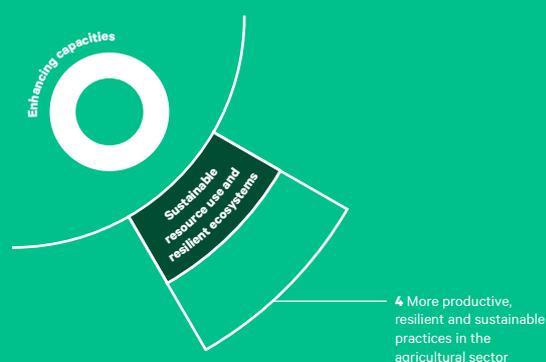
SEI worked with the Government of Lao PDR to develop and adopt a policy framework that moves its agricultural sector towards more productive, resilient and sustainable outcomes.

Type of outcome

Enhancing capacities

SEI supported the government in turning its sights towards more sustainable targets and priorities, leading to the development of a policy framework for Green and Sustainable Agriculture (GSA). This framework is the first policy document of its kind for Lao PDR, and marks a significant departure from an approach to agriculture that has operated since the country's 1975 revolution.

Delivering on our priorities



A new and sustainable path for agriculture in Lao PDR

SEI Asia partnered with FAO and the government of Lao PDR to deliver a policy framework for Green and Sustainable Agriculture. The framework will form the cornerstone of the country's revised Agricultural Development Strategy, and now forms part of its upcoming five-year Socio-Economic Development Plan.

The agricultural sector in Lao PDR, as in all countries in Southeast Asia, is facing the need to adapt on several fronts to rapid environmental, social and economic shifts.

There is pressure to reduce the environmental burden of the sector on land, water and biodiversity, and its impacts on human health. Agricultural goods must also be competitive with those of other producer countries in the region, and the sector needs to adapt to ensure food sovereignty and sustainable production, taking account of the skills, preferences cultural requirements of the population.

Yet since the revolution in 1975, agricultural strategies and policies set out by the Ministry of Agriculture and Forestry (MAF) have been based largely on increasing agricultural production to meet unrealistic targets, relying heavily on intensified use of chemical inputs and mechanization.

Research carried out by SEI at the request of the MAF showed beyond doubt that the country's production targets were unachievable. First because of its bio-geophysical conditions; second because producers don't have access to vital infrastructure, including irrigation, road networks, and equitable markets; and third because agricultural production in Lao PDR has not been able to compete with Thailand, China, or Vietnam in terms of bulk production, meaning that the price of goods produced in Lao would continue to be undercut by its larger neighbours.

A shift in perspective

It was clear a new approach was needed. While working on the research for the ministry, the government asked SEI to comment on its National Green Growth Strategy, which led to further discussion on formulating the new Green Sustainable Agriculture approach.

In the future we will find appropriate ways to disseminate [the GSA framework] more, as well as share it with other countries. Again, thank you, and also to the FAO, for your support and contribution on this work.

– *Vongpaphane Manivong, Deputy Director General, Department of Policy and Legal Affairs, Ministry of Agriculture and Forestry, Lao PDR*

SEI leveraged its long engagement in Southeast Asia in discussions with senior officials to make the case that a different strategy was possible: one which would be environmentally sustainable and also hold the promise that profitable markets could be identified for agricultural commodities produced in Lao PDR.

SEI, in partnership with FAO (the Food and Agriculture Organization of the United Nations), worked to support the government in turning its sights towards more sustainable targets and priorities. The ensuing consultations led the government to commission SEI to develop a policy framework for Green and Sustainable Agriculture (GSA) – a plan which reflects a shift in outlook within Lao’s Ministry of Agriculture and Finance, and the government as a whole.

Long-term engagement with government agencies was a key reason why the work bore fruit – it underpinned a relationship built on trust and allowed SEI staff to credibly communicate a body of research in a way that resonated with the priorities of government stakeholders. It also meant that SEI was able to deploy a deep knowledge of the structure and culture of the institutions involved. Partnership with international agencies, chiefly the FAO, also helped to achieve agreement, as did resources from SEI’s rapid response and strategic collaboration funds, earmarked from the Institute’s core support.

A guide for sustainable agriculture in Lao PDR and beyond

The Lao PDR Government has now officially adopted the policy framework for green and sustainable agriculture, and it is already being used to inform policy development at national and provincial levels. It serves as a guiding document, owned by the Department of Policy and Legal Affairs, and will be applied by the Ministry of Agriculture and Forestry as the foundation for designing specific policy measures.

The new framework will also enable government planning bodies to work independently from foreign agricultural policy, paving the way for change that is compatible with the country’s unique context. In the future, this can help Lao PDR to play a leadership role in agriculture in Southeast Asia, helping to shape the region’s agricultural policy for more sustainable outcomes.



SEI Asia Centre Director Niall O'Connor greets Dr Phet Phomphiphak, Minister with the Lao PDR Ministry of Agriculture and Forestry, at the Regional Dialogue Workshop on Green and Sustainable Agriculture (Lao PDR), January 2020.

Strategy in action

Priority for change

Effective bioeconomy strategies in national and regional policy and planning

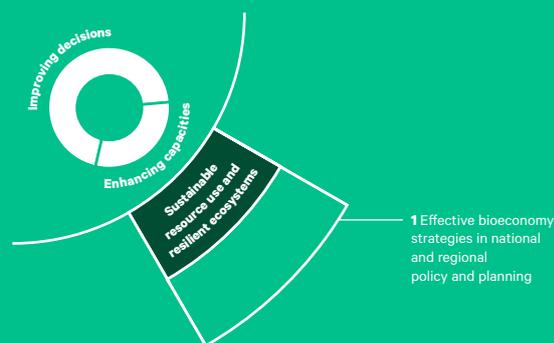
The creation of an East African Regional Bioeconomy Strategy will guide countries in the region in developing national-level bioeconomy strategies, and catalyze policies for sustainable, bio-based and inclusive economic growth. Growth in the bioeconomy provides opportunities for countries in East Africa to achieve many of the UN Sustainable Development Goals and supports the African Union's Agenda 2063 and the regional aspirations of EAC Vision 2050.

Types of outcomes

Improving decisions (1), Enhancing capacities (2)

By drawing on its long-standing regional engagement to help convene relevant actors and compile and generate data, SEI supported a successful, science-based drafting process that meaningfully reflected different local realities.

Delivering on our priorities



New strategy to kickstart the bioeconomy in East Africa

SEI played a leading role in a partnership to develop a **Regional Bioeconomy Strategy for East Africa**, the first of its kind for the continent. The Strategy will catalyze policies for sustainable, bio-based and inclusive economic growth in the region.

In the face of rapid population growth, policymakers in Eastern Africa are under pressure to grow economies, create new jobs, and provide better opportunities for young people and women. At the same time, it is crucial to protect the environment and ecosystems, and ensure resilience to climate change impacts and disease.

The bioeconomy will play a key role in overcoming these challenges. In Eastern Africa, as throughout the world, countries and businesses are making the bioeconomy a priority, and asking how to transform bio-based sectors to support sustainable economic growth and development. To achieve a transformation of this kind, policymakers in the region need to work in partnership and set out a strategic direction. And this is what the BiSEA project (Developing an Innovation-Led Bioeconomy Strategy for Eastern Africa), funded by Sida's BioInnovate Africa Programme, sets out to achieve.

The formulation of a bioeconomy strategy for East Africa is an important stepping-stone in the development of a bioeconomy in the region, transforming and adding value to primary production in Eastern Africa not only in agriculture, but also in sectors like aquaculture, forestry, health and industry.

– Dr Julius Ecuru, *BioInnovate Africa Programme Manager, Icipe, Kenya*



Members of the BiSEA regional drafting group at their first meeting in Nairobi, Kenya, in May 2019.

The East African Regional Bioeconomy Strategy will catalyze the development of [Ethiopia's] national bioeconomy strategy and subsequent policy development for sustainable, biobased and inclusive economic growth and job creation in the region.

– Dr Kassahun Tesfaye, Director General of the Ethiopian Biotechnology Institute, Ministry of Innovation and Technology (Ethiopia)

Mapping a path to sustainable, equitable regional growth

SEI guided the development of the Regional Strategy with input and direction from a drafting group made up of members representing the seven partner countries. SEI also coordinated the effort to collect and assess regional bioeconomy data for the baseline reports that underpinned the process.

The overall objective of the strategy is to achieve “Sustainable economic growth and job creation, making use of the region’s bioresources to develop products in the areas of food and nutrition, health, bio-based industrial products, and bioenergy, while contributing to an improved environment and climate change mitigation.”

The strategy is built around four thematic areas, with specific objectives to:

- introduce new bio-based technologies and solutions to strengthen food and feed production, ensuring food security
- develop a bio-based healthcare sector contributing towards a healthy population with improved well-being, addressing regional priorities and building on Indigenous knowledge and practices
- develop industries that stimulate sustainable economic growth and that add value to under-utilized renewable resources in the region, and
- increase the production and use of sustainable bioenergy, and develop a range of bioenergy products for both household and industrial purposes.

These objectives directly contribute several Sustainable Development Goals, including poverty alleviation (SDG1), improved food security and nutrition (SDGs 2 and 3), good health and wellbeing (SDG3), inclusive and sustainable economic growth (SDG8), affordable energy for all (SDG11), combating climate change and its impacts (SDG13), and functional

ecosystems, a clean environment and maintained biodiversity (SDG 15).

What enabled success?

Building strategic collaboration between seven governments and partners from civil society and the private sector presents challenges, not least in terms of mediating between different interests, transparency, focus and buy-in. By drawing on its long-standing regional engagement to help convene relevant actors and compile and generate data, SEI supported a successful, science-based drafting process that meaningfully reflected different local realities. National-level consultation ensured that each partner country could feel ownership of the outcome, while regional consultation took in contributions from government and policy bodies, industrial and commercial actors, practitioners, farmers, civil society and academia.

Momentum through dialogue

Open discussion is also key to a successful regional approach, and alongside the effort to develop the Regional Bioeconomy Strategy, SEI co-organized the 1st Eastern Africa Bioeconomy Conference. More than 200 participants attended the online conference, including ministers from the region and representatives of UNECA and the African Union. Professor Joachim Von Braun, Co-Chair of the International Advisory Council on Global Bioeconomy, said “The 1st Eastern Africa Bioeconomy Conference, and the EAC and its project to develop a Regional Bioeconomy Strategy is pioneering bioeconomy development in Africa.”

The BiSEA project was coordinated by the East African Science and Technology Commission (EASTECO), including the African Technology Policy Studies Network (ATPS), Kenya’s Scinnovent Center, and Uganda’s Bio-Innovations (U) Ltd.

Strategy in action

Priority for change

Transitions from fossil energy that address inequality, poverty and political economy

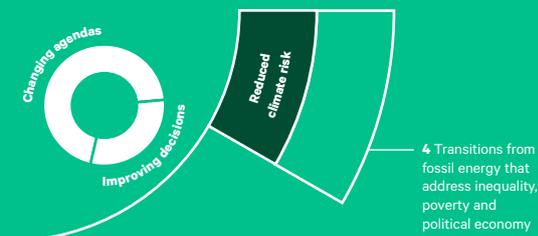
The 2020 PGR focused on enabling transitions from fossil energy that address inequality, poverty and politics. It identifies quantitatively and qualitatively the extent of the challenge with regard to fossil fuel supply and provides clear policy recommendations on how to enable such transitions. It also places particular emphasis on what is implied by a just transition, both within countries with different capacities and levels of fossil-fuel dependence, and between countries from the perspective of global cooperation.

Types of outcomes

Changing agendas (1), Improving decisions (2)

The main aim of the Production Gap Report 2020 is to change the agenda on climate, energy and development policy, so that governments align their fossil fuel production plans with agreed climate goals. The report achieves this by highlighting the discrepancy between the extent of fossil fuel production that governments are planning, and the levels consistent with the ambitions of the Paris Agreement.

Delivering on our priorities



Inspiring equitable transitions from fossil fuels after COVID-19

Through the second Production Gap Report, SEI and its partners worked to ensure the global COVID recovery doesn't lock-in more fossil fuel production.

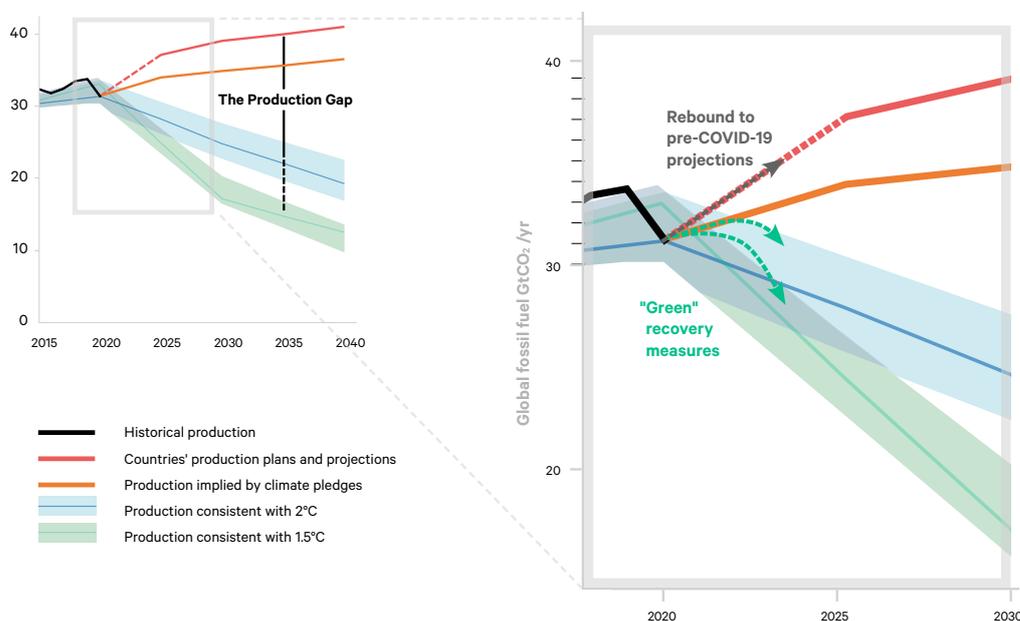
SEI has spent years working to shift global agendas on climate, energy and development, so that governments are aligning their fossil fuel production plans with the climate goals agreed at the 2015 Paris Agreement. 2019 marked an important milestone for these efforts, when SEI and its partners released the Production Gap Report, which garnered worldwide coverage and caught the attention of policymakers.

Continuing the first report's momentum, SEI – in partnership with International Institute for Sustainable Development, Overseas Development Institute, CICERO Centre for International Climate and Environmental Research, Climate Analytics, and the UN Environment Programme – released the follow-up report in November 2020, which considered the production gap in the context of the COVID-19 pandemic.

SEI works to avoid lock-ins after lockdown

The COVID-19 pandemic and its social and economic impacts have introduced new uncertainties to closing the production gap. The pandemic – and the lockdown measures to halt its spread – led to a decline in fossil fuel production. But countries' pre-COVID plans and post-COVID stimulus measures all suggest that the global fossil fuel production gap will continue to grow. The 2021 report found that the world needs to decrease fossil fuel production by 6% per year to limit global warming to 1.5°C. Yet countries are planning and projecting an average annual increase of 2%, producing more than double the amount of fossil fuels in 2030 than would be consistent with a 1.5°C temperature increase limit.

This year's report also explored the equity dimensions of a transition away from fossil fuels.



The fossil fuel production gap – the difference between national production plans and low-carbon (1.5°C and 2°C) pathways, as expressed in fossil fuel carbon dioxide (CO₂) emissions will continue to widen if countries return to their pre-COVID plans and projections for expanded fossil fuel production. Alternatively, strong green recovery efforts could put future fossil fuel production on a pathway much closer to Paris Agreement limits.

It dedicated an entire chapter to examine how countries, with limited financial and institutional capacity, will face significant sustainable development challenges, that are being exacerbated by the COVID-19 pandemic. Countries highly dependent on fossil fuels and with limited capacity to transition away from their dependency will need international support to do so. The report discusses practical pathways to help that cooperation.

SEI's partnerships for change and innovative communications drive impact

SEI's strong and enduring partnerships were the driving force behind this work. Working closely with influential partners, including UNEP, UNSG, the ODI, the IIDD and E3G, provided the foundations to create a scientifically credible and policy relevant report. Additional external funding ensured SEI had the resources to meet the ambitious goals for the report.

A well-developed and smoothly implemented communications strategy, which included producing and releasing materials in multiple languages and multi-media outputs, significantly helped the work to reach its target audiences. SEI's team worked closely with UNEP representatives to coordinate the launch of the 2020 report so that it was released on the same day that the UN Secretary-General António Guterres gave his "State of the Planet" speech and was included as part of their overall engagement plans around the five-year anniversary of the Paris Agreement.

Production Gap report findings continue to inspire change

Following in the footsteps of last year's report, the 2020 Report proved to be an invaluable tool for those working to wind down fossil fuel supply in a just and equitable manner. In his "State of the Planet" speech, Guterres cited one of PGR 2020's key findings and called for states to do more to close the gap: "The world must cut fossil fuel production by 6% per year to avoid the worst of global warming. Instead, countries are projecting an average annual increase of 2%." Following the call, the UN has requested to use the 2020 report in the forthcoming IPCC Sixth Assessment Report.

Several countries have announced new commitments to phase down fossil fuel supply as part of their climate mitigation policies. The day after the 2020 report's release, the Danish Parliament voted to end offshore gas and oil extraction. The Danish minister of climate, energy and utilities, along with Costa Rica's minister of environment and energy, subsequently published an op-ed calling for other countries to follow their lead in ending oil and gas expansion and contribute to a just transition. Costa Rica also became the first country to include limits to fossil fuel production in its NDC when it recently submitted its update.

Though these measures are encouraging, the "production gap" remains large and much future work is needed to ensure countries work together to close it. Next year's report will include a broader assessment of the production gap, including the country profiles that were a centrepiece of the 2019 report.

Strategy in action

Priority for change

Water resource management that is ecosystem-based and holistic

The promise of green infrastructure is that it can provide for human water needs while at the same time protecting aquatic ecosystems. The outputs from this effort are vital if green infrastructure investing is to go to scale in Colombia.

Types of outcomes

Improving decisions (1), Changing agendas (2)

SEI's partnership with authorities in Colombia focused on updating the decision-making apparatus so that the Potable Water and Basic Sanitation Commission is now able to consider and approve green infrastructure investments in a manner compliant with Colombian public utility law – laying the foundations for greening the water supply.

Delivering on our priorities



Laying the foundations for investment in green infrastructure

In Colombia and across Latin America, regulations have until now stood in the way of using revenue from ratepayers to provide a secure funding base for investments in green infrastructure for improving water supply. SEI worked with authorities in Colombia to develop a framework for regulatory reform that leads the way to a secure foundation for investment in green water infrastructure.

For many years, conservation organizations in Latin America, including The Nature Conservancy, have promoted the creation of water funds to serve as investment managers for green infrastructure projects. In some watersheds there has been success in attracting voluntary investments, largely from private sector actors that depend on water supplies or the philanthropic community, these donations are by definition insecure. And because of this, water fund managers have long sought to cover the costs of green infrastructure through water tariffs collected by drinking water utilities. But they face a fundamental problem in doing so: regulation of water tariffs is typically based on the principle that because water utilities are monopolies they require strict oversight.

In Colombia, this oversight role is carried out by the Potable Water and Basic Sanitation Regulation Commission (CRA), based on public utility laws that require Colombian drinking water utilities to demonstrate to the CRA that any increases in rates to cover the cost of capital improvements must be efficient. In other words, utilities must show that investments included in any capital improvement plan – including green infrastructure investments – represent the cheapest approach to achieving a target level of service.

Overcoming barriers in regulation

The CRA has for some time been under pressure, largely from conservation organizations, to find a way to approve water rates that included the cost of green infrastructure investments. The difficulty for the CRA is that it has been forced to apply the



same economic efficiency standards applied to those for grey infrastructure. The conservation community and others argued that these investments would improve hydrologic conditions in a watershed, and thus the quality of service, but had neither the expertise nor motivation to present a thoroughgoing case to regulators.

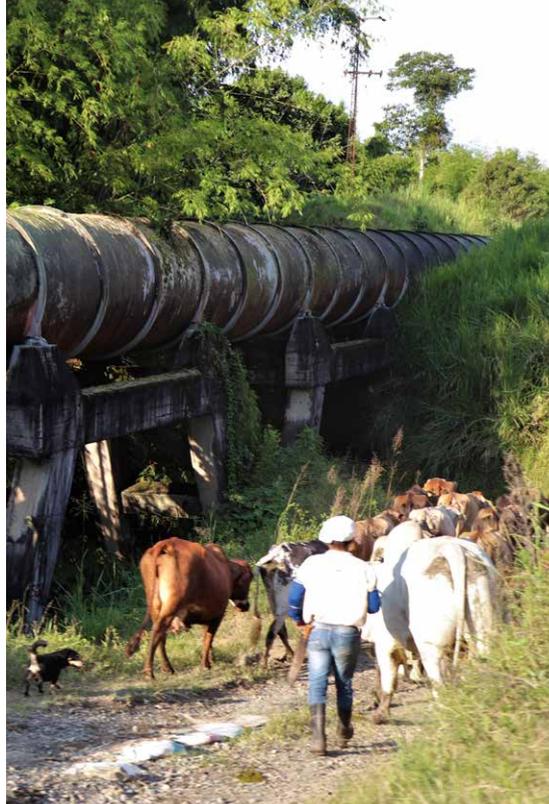
What was needed was more comprehensive analysis that would demonstrate to regulators that investments in green infrastructure would be the most economically efficient way to improve the service provided by drinking water utilities.

To meet this need, the CRA partnered with SEI, which was able to effectively provide the level of analysis and expertise needed to support the CRA in developing an approach that was compliant with Colombian law.

Knowledge partnership unlocks change

By collaborating with SEI Latin America, the CRA could rely on a knowledge partner that not only understood the constraints it faced, but also was able to deploy its signature Water Evaluation and Planning (WEAP) software. The integrated hydrology and water resources functions of the WEAP tool enabled analysis that went beyond the frameworks previously proposed by the conservation community: WEAP allowed the CRA to test procedures for regulatory oversight that were adapted

A lake in Chinchina, Colombia, where two pilot projects have paved the way for regulatory reform in favour of green investment in water supply.



to the well-developed legal and regulatory structures around investment in grey infrastructure.

After two pilot applications, the CRA was able to put forward a package of regulatory reform that was both compliant with Colombian law and yet flexible enough to give green infrastructure projects a fair review.

The outcomes from this partnership are vital if green infrastructure investment is to go to scale in Colombia, given that the funds available to pursue these investments are currently voluntary. Connecting these investments directly to the ratepayers who permanently receive water service would be a game changer and provide a sustainable foundation for future investment in green infrastructure.

The pilot projects in the Chinchina watershed and in the Upper Chicamocha watershed highlight the importance of implementing green infrastructure investments to improve access to clean water. Moreover, the projects allowed for theoretical analysis of justifiable water rates required to complete the projects over the short, medium and long-term.

– Juan Andrés Rojano Sierra, Senior Engineer, Potable Water and Basic Sanitation Regulation Commission (CRA), Republic of Colombia

Strategy in action

Priority for change

Commodity sourcing strategies and standards that address deforestation and biodiversity

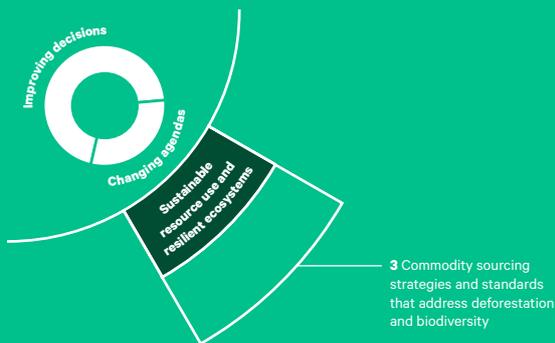
By estimating the amount of illegal deforestation taking place on soy farms and revealing how global markets are exposed to deforestation risks as a result, the Trase initiative is helping companies and governments and farmers build more productive, resilient and sustainable practices in the agricultural sector.

Types of outcomes

Improving decisions (1), Changing agendas (2)

Before the study there was no information on the extent to which soy exports from Brazil to Europe and China were linked to illegal deforestation. The analyses conducted by SEI and partners empowered global companies and consumer market governments to better understand their risks of being exposed to soy contaminated with illegal deforestation.

Delivering on our priorities



Report exposes illegal deforestation in Brazilian soy supply chains

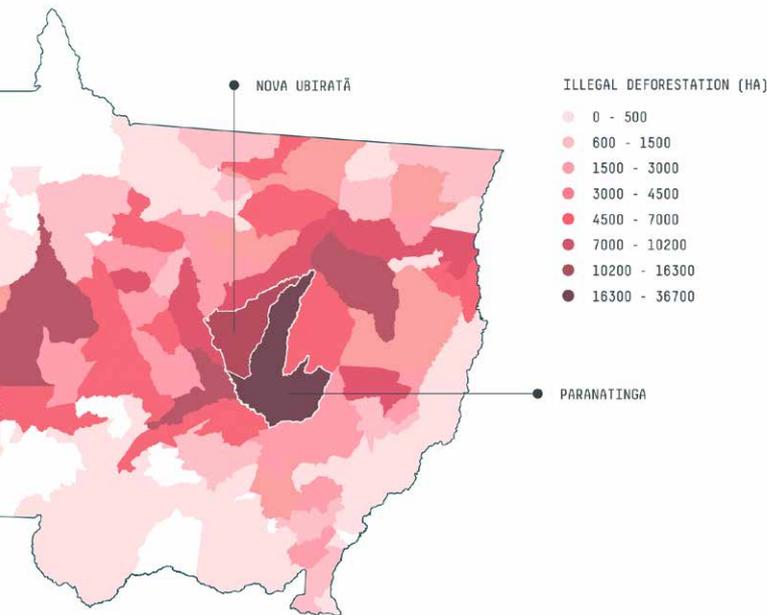
In Brazil, SEI and partners harnessed the work of the Trase initiative to help governments, companies and investors understand the previously unknown links between soy farming and illegal deforestation. This work is helping to improve the sustainability of the soy supply chain in Brazil and Europe.

Over one third of all tropical deforestation in the world in 2019 took place in Brazil, a rate equivalent to the total deforestation of the other top five countries combined.

Almost none of the deforestation in Brazil was authorized by the official environmental agencies and was therefore likely to be illegal. Aside from the impact on climate change and biodiversity loss, illegal deforestation can have social impacts through increased land conflict and violence, as well as economic impacts through fines imposed on companies found to be linked to illegal activities.

The need to eradicate illegal deforestation and improve compliance with Brazil's Forest Code is recognized by the entire agribusiness industry,





government and consumer markets of commodities produced in Brazil. However, it has been unclear to what extent soy, Brazil's most profitable export commodity, was linked to illegal deforestation. This means that companies in the soy supply chain were operating in the dark.

Scale of illegal deforestation in soy supply chains revealed

To address this knowledge gap, the Trase initiative, jointly led by SEI and Global Canopy in partnership with the Brazilian organizations Imaflora and ICV, estimated the amount of illegal deforestation taking place on soy

Shocking report. The EU is the second biggest export market for Brazilian soy from farms with illegal deforestation. We need deforestation-free supply chains.

– Anna Cavazzini, Member of the European Parliament, reacts to the report on Twitter

farms and examined how global markets are exposed to deforestation risks as a result.

The study found that 30% of all deforestation between 2012 and 2017 in Mato Grosso, the largest soy producing state in Brazil, took place on soy farms and that 95% of this deforestation was illegal. The researchers estimated that in 2018, more than 80% of the soy grown on farms in Mato Grosso where illegal deforestation took place was exported. Approximately 20% of the EU's total imports from the state and 21% of China's imports were likely to have come from farms where illegal deforestation had taken place.

The full report of the research was published in June 2020 alongside several media pieces featuring the main findings, including two articles in The Economist.

Catalyzing action

The report and ongoing engagement around the findings have catalyzed action on illegal deforestation in Brazil's soy supply chain among leading private and public sector actors in both Brazil and Europe.

In Europe the study played a key role in drawing attention to the issue and helped companies demand tougher legislation on due diligence, while also supporting efforts to implement the EU Action Plan to Protect and Restore the World's Forests.

The study's findings were presented to key business forums, including to the European Feed Manufacturers' Federation (FEFAC) and the group of companies that signed a Statement of Support for the Cerrado Manifesto. In October 2020, the study was cited in an open letter to the UK Government signed by global food companies, including McDonald's, Unilever and Tesco, calling for greater ambition on their due diligence consultation process in addressing global deforestation.

The report's authors and partner institutions in Brazil engaged with the country's two main soy trader associations (ABIOVE and ANEC) to bring the findings to their attention, motivating the Brazilian soy industry to step-up its efforts to address the issue. At the same time, the findings have strengthened the Brazilian Federal Public Prosecutors (MPF) efforts to combat illegal deforestation connected to soy in Mato Grosso.



The SEI Foundation Annual Report

The SEI Foundation in Sweden (Stiftelsen The Stockholm Environment Institute) consists of SEI Headquarters, SEI Asia, SEI Africa, SEI Latin America and SEI Oxford. SEI Tallinn, SEI US and SEI York are separate administrative entities within SEI with separate reporting requirements.



SEI Executive Director's report

**SEI Foundation
Stiftelsen
The Stockholm
Environment
Institute
802014–0763**

The SEI Foundation includes SEI HQ, SEI Asia, SEI Africa, SEI Latin America and the subsidiary SEI Oxford Office Ltd (registered in UK under company No. 4404220, not consolidated). SEI Asia, based in Bangkok, Thailand, has a diverse team of multinational experts that integrates scientific research with participatory approaches. The centre co-develops and shares knowledge, builds partnerships, and influences policy for resilient development. It focuses on gender and social equity, climate adaptation, disaster risk reduction, water insecurity and integrated water resources management, transitional agriculture, renewable energy and urbanization. SEI Asia is an affiliate of Chulalongkorn University (CU), Thailand. SEI and CU have signed a long-term agreement until 2023 to foster innovative scientific research combined with policy engagement on development and environmental challenges in Asia. The key areas of collaboration are: intellectual engagement for joint research applications and fund mobilization; lecturing and seminars for CU's students; postgraduate supervision and examination; and CU–SEI employee linkages.

SEI Africa is based in Nairobi, Kenya, and is hosted by the World Agroforestry Centre. The centre collaborates with African governments, organizations and networks, acting as a hub for SEI's engagement across the continent. The centre's work focuses on four key areas: energy and climate; natural resources and ecosystems; sustainable urbanization; and health and environment. From its establishment in August 2008 until June 2013, SEI Africa was based at the Institute of Resource Assessment at the University of Dar es Salaam. As of July 2013, it is based in Nairobi, hosted by the World Agroforestry Centre. Staff members are active across South, East and West Africa.

SEI Latin America is SEI's newest centre. It began operations in 2018 and is located in Bogotá, Colombia. The centre's research agenda focuses on the profound transformations that are under way in the region. Colombia is an ideal location for investigating the connections between environmental management and development in the post-conflict era, and for sharing insights on land use, air quality, water resources and ecosystems across the region.

Operations

SEI is an international and independent non-profit research institute, established in 1989 by the Swedish Parliament. SEI's vision is "A sustainable, prosperous future for all", and its mission is "To support decision making and induce change towards sustainable development around the world by providing integrative knowledge that bridges science, policy and practice in the field of environment and development". SEI has its headquarters in Stockholm (Sweden) and centres in Bangkok (Thailand), Boston, Davis and Seattle (US), Oxford and York (UK), Tallinn (Estonia), Nairobi (Kenya), and Bogotá (Colombia).

The global institute also includes SEI Tallinn (The Estonian Institute for Sustainable Development, established in 1992 and registered in Estonia as an independent non-profit foundation with reg. No. 90000966), SEI US (Stockholm Environment Institute U.S., Inc. registered 2006 in Massachusetts with EIN 20-4659308 as a 501c3 non-profit organization) and SEI York (SEI York, Environment Department, The University of York).

The financial statements on the following pages refer to the SEI Foundation only, registered in Sweden with organization number 802014-0763.

Key developments in 2020

The annual core funding from the Swedish Government and the five-year agreement with Sida jointly provide the financial basis for our operations. This core funding, which constituted approximately 33% of the SEI Foundation's turnover in 2020, enables SEI to maintain a high level of professionalism, accountability and effectiveness in core functions. It also allows us to invest in strategic research and policy engagements, where we can be part of agenda setting, capacity development and decision support, and enables us to adapt our programmes to respond to emerging challenges around the world.

In 2020, the government core support was SEK 34 million, of which SEK 9 million were dedicated to co-funding. Co-funding enables SEI to carry out research programmes that require matching funds, while also strengthening the financial sustainability of the SEI centres.

The agreement with Sida supports our activities in developing countries via our centres, through strategic regional and policy engagements, and the SEI Initiatives. It also enables us to respond rapidly to requests from, for example, developing country governments that may not have the means or resources to develop project-funding mechanisms for smaller interventions.

The total revenue of the SEI Foundation in 2020 was SEK 257 million, with a net income of SEK 2.7 million.

SEI experienced another year of growth in 2020, with a gradually increasing portfolio of externally funded project work, in particular through grants. To support the institute's core functions, SEI received core support from the Swedish Government and additional core support from Sida, under a new five-year agreement which was established in 2020. Still, a majority of the funding is project income from research council grants, commissioned research, and international collaboration projects, among other sources.

In 2020 SEI established a new central function and unit, Global Operations, at the headquarters in Stockholm. Headed by the Operations Director, the unit is in charge of overseeing and coordinating a range of functions including operational quality processes; risk management; internal environmental policy; knowledge management; work planning and results reporting; and the broader monitoring, evaluation and learning (MEL) processes. The institute has made further progress on organizational development by enhancing the institute-wide SEI Project Model, and establishing both a new framework for organizational risk management, and a new structure for organizational learning. The organizational learning structure includes a new Intranet, and an updated and strengthened environmental policy that is supported by annual action plans. As part of the Intranet, which was put in place in 2019, a knowledge management hub was developed and launched in 2020.

In February and March, the biennial global employee survey was carried out. The eNPS (Employee Net Promoter Score), a universal measure of employee satisfaction, delivered a good result of 37.6 (up from 22 in 2018).

In 2020, SEI was ranked as the number 2 think tank in the world on environment policy in the annual index compiled by the University of Pennsylvania's Think Tanks and Civil Societies Program. It is the seventh year in a row that SEI has been ranked as either first or second.

COVID-19 impact

The pandemic has so far not resulted in any redundancies and has to date not led to any significant financial impacts. We have worked actively to identify and mitigate employee-related risks by paying closer attention to health and well-being, training managers who faced increased work burdens and responsibilities brought about by Covid restrictions, and offering advice and resources to all employees on how to work safely at home. SEI adapted to the challenges and restrictions with active re-planning of projects to adjust to remote working conditions. Actions included reprioritization within projects, e.g. shifting from travel to other activities, re-directing field work to other locations, and pushing the boundaries of what could be done virtually rather than in-person. Virtual connections have been essential for employees to continue to interact with each other and with project partners. We have diversified our use of digital platforms and provided training and support to staff on how to use them.

The SEI Strategy

Reaching objectives and goals

This Annual Report presents examples of SEI's research activities and outcomes, and provides evidence of how the SEI Foundation fulfils its objectives according to its statutes, which state the following:

The primary objective of the Foundation shall be to initiate, carry out and disseminate studies and other research on the assessment and development of technologies, policies and related environmental management techniques and strategies for an environmentally sustainable development of society. Within its field of activities, the Foundation shall co-operate with organizations, public authorities, institutions, companies and individuals world-wide.

The objectives as described in the statutes are elaborated in the SEI Strategy, which is the main guiding document for the Institute, and operationalized through annual work plans for each SEI centre.

2020 was the first year of SEI's new strategy (2020–24), which was adopted by the SEI Board in October 2019. It was developed through a thorough participatory process across the whole organization, and was also based on the results of two major institutional evaluations carried out by external teams in late 2018. It incorporates new features, including a stronger focus on SEI's identity and values, its outcomes and ultimate impacts in society, an articulation of its organizational theory of change, and other features considered critical for effectively supporting change over the coming years.

The strategy identifies three major impact areas, and 17 specific priorities for change within them:

- Reduced climate risk
- Sustainable resource use and resilient ecosystems
- Improved health and well-being.

The change stories in the previous section of this report provide concrete examples of SEI's work and achievements in the context of our strategy's impact areas in 2020.

The strategy also sets out ambitions for strategic policy engagement in issues on the international agenda, such as the 2030 Agenda, climate, oceans, and biodiversity; the launch of a new generation of core-funded SEI Initiatives, and increased efforts to reduce our environmental impact (see below).

A new generation of SEI Initiatives was launched in 2020, as part of the implementation of the new Strategy. SEI Initiatives, which are developed through a competitive, bottom-up internal process, function as drivers and hubs for research, supported by both core and external project funding. They support SEI's further development and growth, and catalyze additional, external funding as well as further recruitment.

Attached to the Strategy is a results framework, which tracks our activities, outputs and organizational enablers. SEI's scientific impact shows a positive and sustained trend. In 2020 there was an increase in the number of articles and commentaries published high-impact journals. The total number of citations of articles with SEI authors in the Web of Science Core Collection rose by 5% from the previous year, to 10 850. Scopus, a database which includes more social science journals, shows a higher number of citations: 12 522 articles cited SEI publications during 2020, an increase of 22% from 2019.

As a basic building block for increasing the accessibility of our scientific outputs, we strive to publish more of our peer-reviewed journal articles with open access (SEI's own publications have always been openly accessible). This ensures that our work can be accessed by institutions and partners that do not have subscriptions to academic databases, which are often costly. Compared with 2019, the share of our peer-reviewed scientific articles which were published with open access increased in 2020, from 67% to 74% in Web of Science Core Collection, and from 66% to 72% in Scopus.

SEI engages with its main target audiences (policymakers, policy actors in civil society, the academic community and the private sector) using a range of communication products and channels. The number of visitors to the SEI website was largely unchanged from 2019 to 2020, with more than 1.23 million page views. However, in 2020, SEI's media reach was 14% higher than in 2019, meaning that we were cited in outlets that reach more people. At the same time, media exposure, measured by the number of editorial mentions of "Stockholm Environment Institute", decreased by 25%. A Press Officer was appointed towards the end of 2020, strengthening SEI's capacity for media outreach.

Social media is important for reaching target audiences. SEI's content strategy aims to increase engagement and reach on all social media channels. The number of followers of SEI's twitter accounts (@seiresearch and @seiclimate) increased by 7% from 2019 to 2020. LinkedIn has become an important channel for promoting research, as well as advertising jobs, with an engagement rate of

just over 4% per post over the year. Our followers on LinkedIn increased by over 60% in 2020 (from 20 039 to 32 107).

In 2020, SEI invested in data tools, including Altmetric and Overton, to better monitor the citations and mentions of our scientific publications on social media, blogs, news, Wikipedia and public policy documents. Most mentions (approximately 90%) occur on Twitter, followed by those in public policy documents, news articles and blogs, Facebook posts and Wikipedia. The Twitter mentions for all 1407 SEI publications that are currently tracked stem from almost 16 000 unique Twitter accounts in 160 countries.

One way to monitor the societal relevance and policy impact of our work is to measure citations of SEI-authored publications in policy reports. To date, SEI journal articles have mainly been cited by European institutions, UN bodies and the World Bank, and by other think tanks. However, this monitoring is fraught with difficulty since influence and impact in higher-level decision-making often occur without the clear citation or documentation of sources.

Finally, one way to increase the accessibility and relevance of our research and scientific publications in specific regions is to conduct research and co-author publications with universities and other research institutions. Today, most academic collaborations take place with European institutions, but we are actively working to increase our academic partnerships with institutions in Africa, Asia and Latin America.

SEI puts a high value on our institutional partnerships, and 2020 saw several advances in this area. The collaborations between our headquarters in Stockholm, the Royal Institute of Technology and Stockholm University have been further strengthened during the past year. A new partnership was formalized with UNEP via a Memorandum of Understanding (MoU) that outlines collaboration on several areas

of work, including starting up an assessment of the science-policy interface in preparation for the UNEP at 50 celebrations, which will take place in 2022. Other institutions with which SEI centres have partnerships, including MoUs with the Universidad EAN in Colombia; MinCiencias, in Colombia; the General Department of Water in Chile; and the Innovation and Strengthening Human Rights and Peace Research and Education in ASEAN/Southeast Asia Programme (SHAPE-SEA).

Key developments after the year's end

In January 2021, SEI headquarters began an organizational review, with the aim of finalizing it by mid-2021. The potential impacts of the continued spread of COVID-19 are being continuously monitored, in particular with regard to remote working conditions and employee well-being. The assessment remains that there is no significant financial impact expected.

Expected developments in 2021

The outlook for 2021 is financial stability and overall growth, based on increasing project income in most centres. The core support from the Swedish Government through Formas is at the same level as in 2020, including SEK 2 million earmarked for the Leadership Group for Industry Transition, for which SEI provides the secretariat and technical support. The organization's funding base and secured project base are both stable, and new and improved processes for risk management and systems for project planning and monitoring are in place. During 2021, new investments will be made in processes and systems for monitoring, evaluation and learning.

Financial overview

Key figures for the SEI Foundation	2020	2019	2018	2017	2016
Total revenue (million SEK)	257.1	242.3	221.1	201.3	161.3
Net income (million SEK)	2.7	2.2	0.9	1.5	1.8
Total assets (million SEK)	200.2	149.0	117.7	103.8	106.7
Equity (million SEK)	25.6	22.9	20.7	19.8	18.3
Equity ratio (%)	13%	15%	18%	19%	17%
No. of staff at end of period	176	174	152	141	123

Environmental impact

SEI tackles complex environment and development challenges using a highly collaborative approach, with partners across the globe. The nature of our work means there will always be some requirement for travel – to engage in policy processes, to conduct our work in a participatory manner, and to collaborate with a global network of researchers and practitioners. This travel comprises a major part of the institute's environmental footprint. At the same time, we strive to carry out our work as sustainably as possible, and to this end we have put in place institute-wide policies as well as processes at the centre-level, and we are making more effective use of technologies and software for remote meetings.

In 2019, SEI set a goal for reducing emissions from work-related air travel. The goal is to reduce emissions by 25% per capita by 2024, compared with 2017. It is now mandatory for all centres to monitor and report emissions from air travel; this data is then analyzed to inform future decision-making on travel.

In 2020, SEI implemented a global travel ban for much of the year as a result of the pandemic, and this was extended even further by regional restrictions. At the same time, SEI developed a new tool for the internal monitoring and reporting of travel across all centres, to advance our progress towards our emissions reduction target. This work has attracted wider interest from a range of organizations. The TR2AIL tool:

- allows individuals to self-report and monitor their own air travel emissions and targets
- encourages reflection on the reasons and justification for travel, and
- provides a consistent record across all SEI centres that allows for the rapid assessment of trends in air travel emissions for internal management processes and external reporting.

All centres have an internal environmental action plan to chart progress on environmental sustainability targets and set out their plans for the coming year.

Where appropriate, online meetings and remote participation in events are prioritized as the primary mode of international collaboration. This is fundamental not only to minimizing our travel emissions, but also to extending our reach to a wider audience. We invest in ICT and software on an ongoing basis to improve online meeting experiences.

The SEI Foundation's flight emissions in the past six years are summarized in the table below. While we expect our emissions in 2021 to increase from 2020, when exceptional restrictions were in place, we aim to learn from, and build upon, our capacity to engage effectively and operate remotely, which has increased hugely this past year.

Year	Air travel emissions (tons CO ₂ e)	Distance (km)	Travel emissions per employee (tons/FTE)
2015	530	3.2 million	5.76
2016	517	3.4 million	4.92
2017	561	3.7 million	4.96
2018	583	3.9 million	4.40
2019	543	3.6 million	4.00
2020	56	0.4 million	0.36

Human resources

Many activities during 2020 focused on direct support for employees during the pandemic. For example, all employees were offered use of mindfulness application (Headspace), and SEI expanded its collaboration with International SOS. A leadership training session was requested by and delivered to managers at SEI HQ, SEI Tallinn and SEI US, and the very first global leadership programme began in spring 2021. The new performance evaluation system that was implemented at SEI HQ in 2019, resulting in improved and GDPR-compliant storage of performance and development reviews, has also been rolled out at SEI Tallinn. SEI Asia will implement the system during 2021. In addition, a global SEI whistle-blowing process has been implemented and a global employee survey was conducted, resulting in a series of workshops and the development of action plans. Throughout the past year, the SEI HR Network continued to enhance collaboration across all SEI centres within the "People Agenda", which is embedded in all SEI centre workplans, including the new process for People Review and Succession planning. The global mentorship programme, with participation from all SEI Centres, is still running and supporting cross-centre collaboration within SEI.

Significant risks and uncertainties

In 2019, SEI started an organization-wide process to develop a risk management framework in order

to identify potential threats to the organization and define both a strategy for eliminating or minimizing the impact of these risks, and mechanisms to monitor and evaluate the strategy. This is now being integrated into organizational procedures through a risk governance process and annual risk cycle, including steps for identifying, prioritizing, assessing, responding to, and monitoring risk.

For the year 2021, four risks have been identified as priorities for all SEI centres to address, three of which are related to the COVID-19 pandemic.

These risks are:

- Stress and wellbeing (accelerated during the pandemic)
- Employee retainment (accelerated risk during the pandemic)
- Partner organization risks, targeted through improved due diligence procedures
- Project productivity and delivery risks (accelerated risk during the pandemic).

In terms of funding, while we receive project funds from many different organizations there remains a dependence on Swedish Government funding for core support. SEI uses this core funding to leverage additional external funding. This is clearly articulated as a goal, not least for the SEI Initiatives.

The activities of SEI are also exposed to currency risks related to fluctuations in expected and contracted payments in projects.

SEI carries out research and engagement with partners around the world. This involves exposure to risks related to project management and delivery which may ultimately affect the SEI brand. Such risks are regularly addressed through risk management and quality assurance procedures during project planning and implementation. Continuous improvements and investments in competence development – such as the development of the institute-wide SEI project model, and training in project management – are undertaken to minimize these risks over time.

Appropriation of results

Appropriation of accumulated results (amounts in SEK)

The equity of the SEI Foundation at the beginning of 2020	22 895 672
Net income for the year 2020	2 726 692
Final balance	25 622 364

Financial statements

Income statement

Amounts in SEK	Note	2020	2019
Government grant		34 000 000	32 000 000
External project funding	2	223 094 346	210 250 554
Sundry income	3	39 517	24 243
Total revenues		257 133 863	242 275 798
Personnel costs	4	-109 522 378	-99 935 070
Travel costs in operations		-88 132	-413 479
External costs in projects	5	-120 319 751	-116 198 957
Other costs	5, 6	-20 895 016	-20 633 997
Depreciation	7	-1 515 301	-1 471 557
Operating income		4 793 285	3 622 737
<i>Result from financial investments</i>			
Interest income and similar profit items	8	2 280 294	1 496 145
Interest expense and similar loss items	8	-3 519 603	-2 182 899
Income before tax		3 553 976	2 935 984
Tax on the result for the year	9	-827 284	-765 731
Net income		2 726 692	2 170 253

Balance sheet

	Note	2020	2019
Assets			
Fixed assets			
Intangible fixed assets		773 809	1 006 113
Tangible fixed assets		2 423 486	2 673 626
	7	3 197 295	3 679 739
Financial assets			
Investments in group companies	10	1 439	1 439
Other long-term receivables	11	1 250 000	1 250 000
		1 251 439	1 251 439
Total fixed assets		4 448 734	4 931 178
Current assets			
Current receivables			
Accounts receivable, customers		2 308 285	3 897 925
Prepaid tax		2 245 120	2 052 094
Other receivables		810 482	547 618
Prepaid expenses and accrued income	12	10 981 623	8 224 854
		16 345 510	14 722 491
Cash and bank balances		179 428 591	129 357 759
Total current assets		195 774 101	144 080 250
TOTAL ASSETS		200 222 835	149 011 428
Equity and liabilities			
Equity			
Balance brought forward		22 895 672	20 725 420
Net income for the year		2 726 692	2 170 253
		25 622 364	22 895 673
Current liabilities			
Advance payments for work in progress	13	135 149 567	96 442 502
Accounts payable, suppliers		9 530 383	9 223 314
Liabilities, SEI centres/affiliated companies abroad	14	11 264 832	6 005 526
Other liabilities		3 913 146	3 555 623
Accrued expenses and deferred income	15	14 742 543	10 888 789
		174 600 471	126 115 755
TOTAL EQUITY AND LIABILITIES		200 222 835	149 011 428

Cash flow statement

	Note	2020	2019
Net income from operations		2 726 692	2 170 253
Non-cash items (depreciation)	7	1 515 301	1 471 557
Net cash generated (used) in operating activities before changes in operating assets and liabilities		4 241 993	3 641 810
Increase (-) / decrease (+) in short-term receivables		-1 623 020	-60 401
Increase (+) / decrease (-) in short-term liabilities		48 484 716	29 182 946
Cash flow before investments		51 103 690	32 764 355
Investing activities			
Deposited as collateral with the landlord	11	-	-
Capital expenditures (acquisition of equipment)	7	-1 032 857	-1 943 323
Proceeds from the sale of equipment		-	-
Net cash provided by investing activities		-1 032 857	-1 943 323
Net cash flow after investing and financing activities		50 070 833	30 821 032
Cash at beginning of year		129 357 759	98 536 727
CASH AT END OF YEAR		179 428 592	129 357 759

Notes to the financial statements

Note 1: General accounting principles

The financial statements have (since 2014) been prepared in accordance with BFNAR 2012:1 Annual Report guidelines (K3) issued by the Swedish Accounting Standards Board.

Accounting currency

The Annual Report is presented in Swedish kronor (SEK) and the amounts are in SEK unless otherwise stated.

Valuation principles

Assets and liabilities have been valued at acquisition value if not otherwise stated below.

Revenues

Percentage of completion method is applied to all those projects whose outcome can be satisfactorily calculated. Revenues from projects carried out on a current account basis are recognized in the income statement at the pace of completion. The degree of completion of a project is determined by comparing costs incurred to date with the estimated total contract costs. If it is probable that total project costs will exceed total contract revenue, the expected loss is immediately recognized as an expense in full. If there is significant uncertainty regarding payment or associated costs, no revenue is recognized.

Fixed assets

Fixed assets are recognized as assets if it is probable that economic benefit will accrue at a future date and if the acquisition value of the asset can be measured reliably. Fixed assets are recognized at cost less accumulated depreciation based on estimated economic useful life.

The following principles for depreciation have been used:

Computers	36 months
Other tangible fixed assets	60 months
Intangible fixed assets	60 months

Leasing

All leasing agreements are classified as operational leasing which implies that lease payments are expensed on a straight-line basis over the lease term.

Asset impairment

The carrying values of the Foundation's assets are reviewed at every closing date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable value is estimated. An impairment loss is charged to the income statement. The recoverable value is the greater of fair market value less costs to sell and value in use.

Income tax

As a Foundation under Swedish law the Foundation is liable for income tax at a current rate of 21,4%.

Receivables

Receivables have been individually assessed and are reported at the amount expected to be received.

Receivables and liabilities in foreign currency

Receivables and liabilities denominated in foreign currencies are translated to the accounting currency at the exchange rate prevailing at the balance sheet date. Exchange differences arising on translation are recognized in the income statement.

Employee benefits

The Foundation's pension plans include both defined contribution pension plans and defined benefit pension

plans. Obligations for all pension plans are recognized as expenses in the income statement as incurred.

Group accounting

The Foundation, as a parent company to SEI Oxford Office Ltd according to Note 7, does not set up group accounting, applying the 3§, chapter 7 of the Annual Accounts Act.

Estimates and assumptions

In the preparation of the financial statements it is necessary for management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenues and expenses. Actual results may differ from these estimates. Those estimates and assumptions that can imply a risk for significant adjustments in accounted values are primarily valuation of work in progress in projects.

Incurred events within the Foundation or its environment may make it necessary to revise these estimates and assumptions. On an annual basis a review is made to determine whether there is any indication that the value of assets is lower than the accounted value. In such a case the asset's recoverable value is estimated, equal to the greater of fair market value less costs to sell and value in use.

Note 2: External project funding

External project funding received from the following sources:	2020	2019
Development Agencies	48.70%	43.00%
Governments	21.86%	20.39%
Foundations	12.01%	13.53%
Research Councils	9.60%	7.05%
Multilateral (EU, UN, etc)	6.59%	14.05%
Private Sector	0.60%	0.82%
Developments Banks	0.44%	0.51%
Other	0.21%	0.65%
	100.00%	100.00%

Note 3: Sundry income

	2020	2019
Reimbursement of travel and other expenses	39 517	92 903
Miscellaneous	–	-67 660
Total	39 517	25 243

Note 4: Employees and personnel expenses

Average number of employees (FTE)	2020	2019
Sweden	94	82
(of which men)	41%	44%
Thailand	36	34
(of which men)	33%	40%
Kenya	11	10
(of which men)	44%	44%
Colombia	15	10
(of which men)	47%	52%
Total	156	136
(of which men)	40%	44%

Board of Directors and management	2020	2019
Board of Directors, number of members	7	4
(of which men)	43%	25%
Global Management Committee, number of members	16	18
(of which men)	50%	56%

Salaries, other remunerations and social fees	2020	2019
To the Board members and Executive Director	1 331 300	1 286 500
To other employees	78 319 163	73 067 717
Total	79 650 463	74 354 217
Social fees	30 716 662	26 853 197
(of which pension costs)	(8 121 489)	(7 670 698)
SEK 519 556 of the pension costs relate to the Executive Director		

Salaries and other remunerations by country	2020	2019
Sweden	52 599 719	47 836 852
Thailand	18 297 856	18 057 392
Kenya	4 883 385	5 192 230
Colombia	3 869 503	3 267 742
Total	79 650 463	74 354 217

Terminal benefit

The Executive Director is entitled to a severance settlement amounting to one year's salary.

Note 5: Audit fees

	2020	2019
Audit fee statutory audit (Mazars SET)	211 663	244 529
Audit fees project audits (Mazars SET)	438 441	278 084
Total	650 104	522 613

Note 6: Leasing agreements

Leasing costs	2020	2019
Office premises Stockholm	6 198 825	5 894 544
Office premises Bangkok	1 121 957	1 141 379
Office premises Nairobi	484 695	478 191
Office premises Bogotá	199 231	237 815
Copy machines	70 154	68 080
Total	8 074 863	7 820 009

Additional information on leasing agreements

Office premises Stockholm

Base office rent from January 2019 is SEK 4 255 200 per year for a total space of 1182 sqm. The agreement includes a clause on index regulation, and is valid until 31 December 2021. There is a fixed discount of SEK 354 600 in 2019 and SEK 177 300 in 2020.

Total costs in the agreement include heating, cooling, waste disposal, electricity, archive rent, and property tax. At 2020-12-31 contracted nominal future payments are SEK 4 868 975 excl. VAT and index adjustment.

Office premises Bangkok

Rent is THB 450/month/sqm for a total space of 817,79 sqm. The agreement is valid until 31 March 2024. At 2020-12-31 contracted nominal future payments are THB 14 352 215 (= SEK 3 915 284).

Office premises Nairobi

Rent is USD 31/month/sqm for a total space of 146,02 sqm. The agreement is valid until 30 June 2023. At 2020-12-31 contracted nominal future payments are USD 135 799 (= SEK 1 112 000).

Office premises Bogotá

Rent is COP 47 060/month/sqm for a total space of 145 sqm. The agreement is valid until 30 November 2022. At 2020-12-31 contracted nominal future payments are COP 156 945 100 (= SEK 373 679) excl. index adjustments.

Copy machines

The agreement is SEK 3 930 per month excl. VAT. The agreement is valid until October 2021. At 2020-12-31 contracted nominal future payments are SEK 39 300 excl. VAT.

Note 7: Fixed assets

	2020	2019
<i>Gross value</i>		
Opening balance	14 976 953	13 033 630
Acquisitions	1 032 857	1 943 323
Sale	-	-
Discarded	-	-
	16 009 810	14 976 953
<i>Accumulated depreciation</i>		
Opening balance	-11 297 214	-9 825 657
Sale	-	-
Adjustment	-	-
Depreciation charged	-1 515 301	-1 471 557
	-12 812 515	-11 297 214
Net book value	3 197 295	3 679 739

Note 8: Result from financial investments

	2020	2019
Interest revenue and expense		
Interest revenue	4 516	44 730
Interest expense	-6 578	-6 572
	-2 062	38 158
Exchange rate gains and losses		
Exchange rate gains on balance items	2 275 778	1 451 411
Exchange rate losses on balance items	-3 513 025	-2 176 327
	-1 237 247	-724 916

Note 9: Tax

	2020	2019
Current tax	-827 284	-765 731
Deferred tax	-	-
Total	-827 284	-765 731
Theoretical tax		
Income before tax	3 553 976	2 935 984
Tax at current tax rate 21.4%	-760 551	-628 300
Reconciliation of effective tax		
Effect of non-deductible expenses	-66 733	-137 431
Effect of tax-exempt income	-	-
Utilization of tax value of loss carryforwards not previously recognized		
Adjustment for taxes pertaining to previous years	-	-
Total	-827 284	-765 731

Note 10: Investments in group companies

Companies/corporate identity number/registered office	Nominal value one share	Number of shares	Share (%)	Book value
SEI Oxford Office Ltd, 4404220, Oxford	£1	100	100	1 439

Note 11: Other long-term receivables

Deposit according to the contract with SEI's landlord Vasakronan Fastigheter, for the duration of the lease of the office premises (currently until 2021-12-31). The deposited amount will earn interest* income which belongs to SEI and will be repaid to SEI together with the deposited amount upon termination of the lease.

* The amount deposited with Vasakronan's bank account with Handelsbanken, with interest currently STIBOR T/N minus 0,6%.

Note 12: Prepaid expenses and accrued income

	2020	2019
Prepaid rent	1 586 249	1 525 364
Advance payments to project partners	7 827 987	5 962 653
Other prepayments	1 567 387	736 836
Total	10 981 623	8 224 854

Note 13: Advance payments for work in progress

	2020	2019
Work in progress, costs incurred	-782 935 148	-761 989 967
Accrued interest revenue on advances (specified per project)	21 937	21 937
Deductible: advance payments	918 062 778	858 410 532
Total	135 149 567	96 442 502

The balance is reported as a liability, since the advance payments are higher than the accrued income. Interest income, accrued as a general liability on advance payments, is included in Other liabilities.

The advance payments liability includes an amount of SEK 2 803 212 which is part of the Government core grant earmarked for co-funding (SEK 9 million in 2020) and allocated to projects but not yet fully utilized according to the principles of accrual.

Note 14: Liabilities SEI centres/affiliated companies abroad

	2020	2019
SEI Tallinn	377 605	20 400
SEI US	7 079 604	3 893 874
SEI Oxford	3 807 623	2 091 251
Total	11 264 832	6 005 526

Note 15: Accrued expenses and deferred income

	2020	2019
Accrued holiday pay	6 556 247	4 601 317
Accrued salaries and social charges	4 334 400	4 018 640
Sundry accruals	3 851 896	2 268 833
Total	14 742 543	10 888 789

Note 16: Pledged assets and contingent liabilities

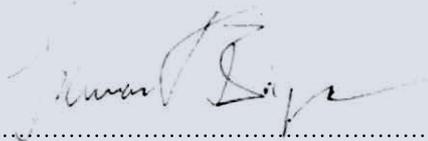
Pledged assets	2020	2019
Floating charge	1 000 000	1 000 000

Contingent liabilities

According to the agreement* signed with The University of York, describing the co-operation between the SEI Foundation and the University, which is hosting the SEI York Centre, the SEI Foundation undertakes to underwrite all eligible costs of the SEI York Centre, including contribution towards University administrative cost as agreed. Revenues of the centre will be set against eligible cost at the end of each academic year and, in the event of shortfall, the SEI Foundation will make payment to the University. The terms of the agreement limit the aggregate liability to GBP 350 000.

* Agreement valid for an initial period of 1 August 2016 to 31 July 2017, and continuing thereafter unless and until terminated by one party giving to the other party not less than 12 months' notice.

Stockholm 2021-03-24



Lennart Båge
(Acting Chair)



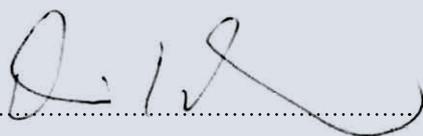
Ingrid Petersson



Göran Finnveden



Kristin Halvorsen



Dirk Messner

Our audit report was submitted 2021-05-18



Håkan Sten
Authorized Public Accountant



Fredrik Gunnarsson
Mistra, Stiftelsen för miljöstrategisk forskning

AUDITOR'S REPORT

To the board of Foundation Stockholm Environment Institute
Corporate identity number 802014-0763

Report on the annual accounts

Opinions

We have audited the annual accounts of Foundation Stockholm Environment Institute for the year 2020. The annual accounts of the foundation are included in the printed version of this document on pages 50-66.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of Foundation Stockholm Environment Institute as of 31 December 2020 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act.

Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the *Auditor's Responsibilities section*. We are independent of Foundation Stockholm Environment Institute in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Other Information than the annual accounts

The Board of Directors and the Executive Director are responsible for the other information on pages 1-49. The other information comprises of SEI Global Annual Report.

Our opinion on the annual accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors and the Executive Director

The Board of Directors and the Executive Director are responsible for the preparation of the annual accounts and that they give a fair presentation in accordance with the Annual Accounts Act. The Board of Directors and the Executive Director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts, The Board of Directors and the Executive Director are responsible for the assessment of the

foundation's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Executive Director intends to liquidate the foundation, to cease operations, or has no realistic alternative but to do so.

The authorized auditor's responsibility

My objectives are to obtain reasonable assurance about whether the annual accounts as a whole are free from material misstatement, whether due to fraud or mistakes, and to issue an auditor's report that includes my opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or mistakes and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts.

As part of an audit in accordance with ISAs, I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the annual accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of the foundation's internal control relevant to my audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the foundation's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors and the Executive Director.
- Conclude on the appropriateness of the Board of Directors' and the Executive Director's use of the going concern basis of accounting in preparing the annual accounts. We also draw a conclusion, based on the audit evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the foundation's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the annual accounts or, if such disclosures are inadequate, to modify my opinion about the annual accounts. My conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the foundation to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual accounts, including the disclosures, and whether the annual accounts represent the underlying transactions and events in a manner that achieves fair presentation.

I must inform the Board of Directors of, among other matters, the planned scope and timing of the audit. I must also inform of significant audit findings during my audit, including any significant deficiencies in internal control that I identified.

Lay auditor's responsibility

I have conducted the audit in accordance with generally accepted auditing standards in Sweden. My objectives are to obtain reasonable assurance about whether the annual accounts are prepared of the annual accounts and that they give a fair presentation in accordance with the Annual Accounts Act.

Report on other legal and regulatory requirements

Opinions

In addition to our audit of the annual accounts, we have also audited the administration of the Board of Directors and the Executive Director of Foundation Stockholm Environment Institute for the year 2020.

In our opinion the Board Members and the Executive Director have not acted in contravention of the Foundations Act, the Foundations Ordinance or the Annual Accounts Act.

Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the *Auditor's Responsibilities section*. We are independent of Foundation Stockholm Environment Institute in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Responsibilities of the Board of Directors and the Executive Director

The Board of Directors and the Executive Director are responsible for the administration under the Foundations Act and the Foundations Ordinance.

The authorized auditor's responsibility

My objective concerning the audit of the administration, and thereby my opinion about discharge from liability is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Executive director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the foundation, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the foundation.

As part of an audit in accordance with generally accepted auditing standards in Sweden, I exercise professional judgment and maintain professional scepticism throughout the audit. The examination of the administration is based primarily on the audit of the accounts. Additional audit procedures performed are based on my professional judgment with starting point in risk and materiality. This means that I focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular importance for the foundations situation. I examine and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to my opinion concerning discharge from liability.

Stockholm 2021-05-18



Håkan Sten
Authorized Public Accountant



Fredrik Gunnarsson
Lay Auditor

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