



Stockholm
Environment
Institute

From policy to practice

Annual report 2018

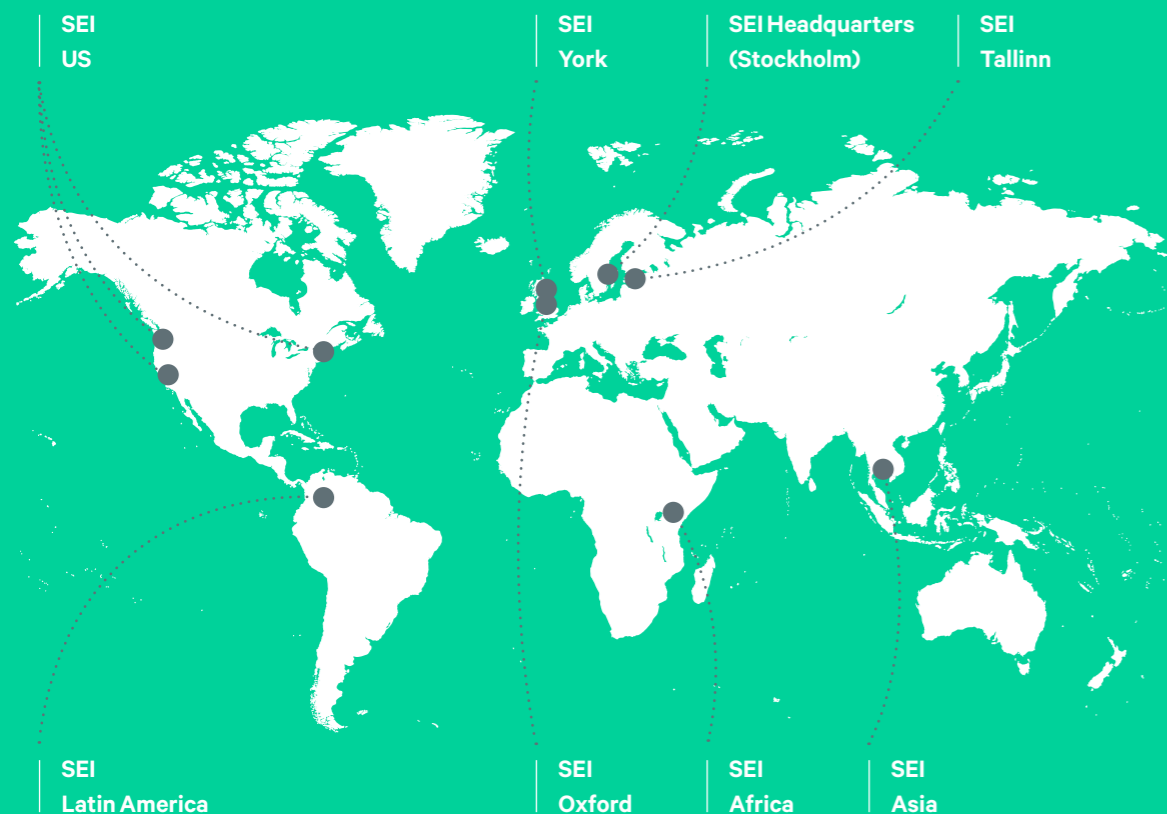
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The Stockholm Environment Institute is an international non-profit research and policy organization that tackles environment and development challenges.



Leadership perspective

An introduction from the Executive Director and Chair of the SEI Board

SEI's mission is grounded in the principles of international agreements on sustainable development, from the Stockholm Conference in 1972 to the 2030 Agenda in 2015 (see page 06).

2018 turned out to be another challenging year for the international system and these principles, as the rise of authoritarian regimes and populism became increasingly visible in the politics of international action on sustainable development. But in spite of the political climate, governance systems keep delivering reasonable outcomes, for example at COP24 in Katowice, in the EU's long-term climate strategy, and in national and subnational efforts to reduce climate risks and implement the 2030 Agenda.

The achievements of the 2030 Agenda and the Paris Agreement must not lose momentum at this crucial stage of implementation. In 2018, SEI maintained its focus on supporting governments in delivering the Sustainable Development Goals (SDGs) and on accelerating climate action through the international policy agenda and in key industrial sectors. For example, we are building on our

collaboration with the Swedish steel producers' association, Jernkontoret, to examine how the SDGs can help ensure that strategic industry decisions contribute to societal value.

As the politics of sustainable development shift, dimensions such as health, poverty and gender and social equality are becoming even more central topics for us: they are woven through environmental issues and challenges as drivers, as impact areas, and as levers for sustainable solutions.

We recognize that to make progress on these complex issues, collaboration and coordination between scales, and over time, are crucial. SEI's approach to research and engagement forms a chain from the scale of household decision-making, through local, national and regional governance, to the implementation of global conventions and agreements. This gives us a unique perspective on the challenges of sustainable development.

Organizational developments

SEI added 16 new staff, installed a new management team, with a new Executive Director, Research Director and Global Research Committee, and Head of Operations. We also established a new centre – SEI Latin America – in Bogotá, Colombia (see page 08), which has focused initially on the implementing the SDGs and water resources management. One exciting development there is the new WATCH programme, which will work with decision makers and planners in Bolivia to equip the country's institutions with the information and capacity they need to integrate safe sanitation and watershed management.

2018 has been a year of reviewing and strengthening our operational systems, as well as making preparations for a new strategy for the period 2020–2024. Two external evaluations were conducted, one examining our results and how we achieve them, and one examining our internal operational systems. The evaluations gave an overall positive view and provided a number of useful recommendations

As the politics of sustainable development shift, health, poverty, and gender and social equality are becoming even more central topics for us

that we are taking into account in our organizational developments and preparations for the new strategy.

We started a major overhaul of our monitoring, evaluation and learning system. The system will support our overarching aim to become a truly learning organization.

We conducted an assessment of our policy impact and lessons from our engagement with decision makers in recent years. We have also appraised our strategies for capacity building.

A brand-new website and visual identity were launched in spring,

offering new potential for visualization and online publication, and efforts to mainstream communications into our research.

And we have worked across all parts of SEI to develop a new, ambitious internal environmental policy to ensure that we live up to our values. The new policy will have ambitious quantitative goals for air travel, which is a substantial part of our footprint.

A new strategy

As we launch this annual report, we are also preparing the next strategy, which will set our agenda for the period 2020–2024. We see that SEI's mandate and mission are as relevant as ever.

Over the coming years, SEI will sharpen its delivery of research and engagement towards sustainable outcomes. While we will build on areas of research in which we have a history of success, we will also respond to new and emerging sustainable development challenges and opportunities. We will continue to provide our partners and stakeholders with useful and novel insights and tools that are anchored in the day-to-day realities of decision-making – for environmentally sustainable development solutions, policies, technologies and practices.



Kerstin Niblaeus
Chair of the Board



Måns Nilsson
SEI Executive Director

Our origins

Stockholm Environment Institute is named after the Stockholm Declaration on the Human Environment, adopted at the UN Conference on the Human Environment in 1972. Our mandate, vision, approach and values are derived from the principles outlined in this declaration.

The creation of a research institute devoted to providing knowledge and capacity to deal with the environmental dimensions of human development and well-being sprang from this UN conference – the first truly international conference to see environmental and economic priorities as two sides of the same coin.

The 26 principles set out in the Stockholm Declaration remain as relevant now as they were almost half a century ago. In 2019 SEI will celebrate its thirtieth year of bridging science and policy on environment and development, which prompts us to reflect on the Stockholm Declaration and our origins to understand how far we've come and how much more remains to be done.

The Declaration identifies many issues that are still among the top sustainable development challenges today:

- basic human freedoms and rights, dignity and well-being (Principle 1 of the Declaration)
- safeguarding natural resources for both present and future generations (Principle 2)
- maintaining renewable resources (Principle 3)
- nature conservation (Principle 4)
- pollution as a threat to both human health and nature (Principle 6)
- disaster risk (Principle 9)

- financial and technological transfer (Principles 9, 12 and 20)
- urbanization (Principle 15)
- scientific research (Principle 20)
- international cooperation (Principle 24)
- integrated development policy and planning (Principle 13).

The principles in the Declaration have since been repeated, updated and mainstreamed in landmark global forums such as the Brundtland Commission in 1987, the Rio Summit in 1992 and more

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, and our unique centre structure enables North-South, South-South and South-North learning.

recently in the articulation of the 2030 Agenda in 2015. They are the foundation and frame of reference for SEI's conception of sustainable development.

SEI's mission is more relevant than ever. We see policy as not just government decisions but also the policies of non-public actors and organizations, so we have added "practice" to our mission in order to clarify that we also engage directly with practitioners, businesses, investors, communities, farmers and households.

SEI and the Sustainable Development Goals

The Sustainable Development Goals reflect a global consensus that economic, social and environmental aspects of development are inextricably linked and mutually dependent. SEI made important contributions to the development of the SDGs. As the goals were being negotiated SEI worked with country delegates and with partners in the Global South to develop capacity on the main issues and implications of the goals. We now offer scientific support on implementation and follow-up on the goals and the broader 2030 Agenda for Sustainable Development (see page 25). Our contribution will be to bridge science, policy and practice to deliver the necessary change and capacities on the ground.

We have now added "practice" to our mission to clarify that we also engage with practitioners, businesses, investors, communities, farmers and households



Our new centre

Latin America is undergoing profound environmental and social changes. Last year SEI launched its eighth centre in Bogotá, Colombia. David Purkey discusses how SEI Latin America has found a niche and how it is gearing up to support regional partners. On the following pages two new colleagues at the centre discuss their work.



David Purkey
Director, SEI Latin America

Why was there a need to open a centre in Latin America, and what attracted you to leading it?

Latin America is a particularly exciting place to do research, with scope to achieve a lot. The development challenges are substantial, and the pressures related to climate change and other global stressors are real, yet the region is not so completely locked into a rigid development paradigm that it's impossible to consider new and innovative ideas for promoting more sustainable futures (as is unfortunately the case in parts of Europe and North America). Also, the level of human capacity in Latin America is impressive, making it possible to develop very strong and productive collaborations with regional universities, policy-makers and civil society.

We believe that a permanent presence in the region can strengthen partnerships and increase impact. There is a legitimate argument that with so much local capacity in Latin America there is no need for another international organization to set-up shop. But since arriving in

the region, our experience has been about enhanced collaboration and not competition. And in particular, the very policy-focused research approach adopted by a think tank such as SEI is not yet so common, so SEI really does have the opportunity to deploy that expertise in the region.

Can you reflect on the centre's first year of operations? How far did it match your expectations?

When I arrived in January of 2018 a good deal of the basic set-up work was complete. Once the centre opened, we hired the excellent Juanita Gomez as full-time Operations Manager and Deputy Director, tasked with establishing procedures and policies for the centre. This freed me up to focus on developing research capacity, and we were fortunate to find two talented colleagues, Hector Angarita and Ivonne Lobos, to lead our first two research lines, respectively focused on water management and 2030 Agenda implementation.

Our first year of operation has met my core aspirations. We aimed to have

two research lines up and running by the end of 2018, and we did. We aimed to have four research staff on board by the end of 2018, and we did. We aimed to operate "in the black" financially, and we did.

Beyond these core achievements, however, the most satisfying aspect of our first year has been the extent to which academia and the public sector have sought out SEI as a research and knowledge partner. For example, Colombia's CRA (Potable Water and Basic Sanitation Regulatory Commission) recently approached us to help develop a regulatory framework on green infrastructure in water utilities. Based on our first year of operations, the hypothesis that a space existed in Latin America for an organization like SEI seems valid.

How will the centre's work address poverty and inequality in the region?

The most important thing is ensuring that the research we've embarked on will make a broad contribution on those issues. And this has to do with the

way our research efforts are designed from the outset. For example, our water work disaggregates both input data and model output by gender, age cohort and social class, so that we can be sure that a particular water management intervention not only improves conditions "on average" within a watershed but also for specific disadvantaged communities. Our work on SDG interactions has always included targets related to SDG 1: No Poverty and SDG 5: Gender Equality, even when the primary focus of the interactions analysis has been on another goal. This has prompted many interesting conversations on the centrality of equality to meeting any and all development challenges. We hope that over time these kinds of decision on research design will allow us to make stronger claims about links between our work and greater equality.

We also strive to make operational decisions that reflect our desire to do both. In hiring, we've sought to maintain overall gender balance in the centre and in the leadership. We also decided against accepting unpaid

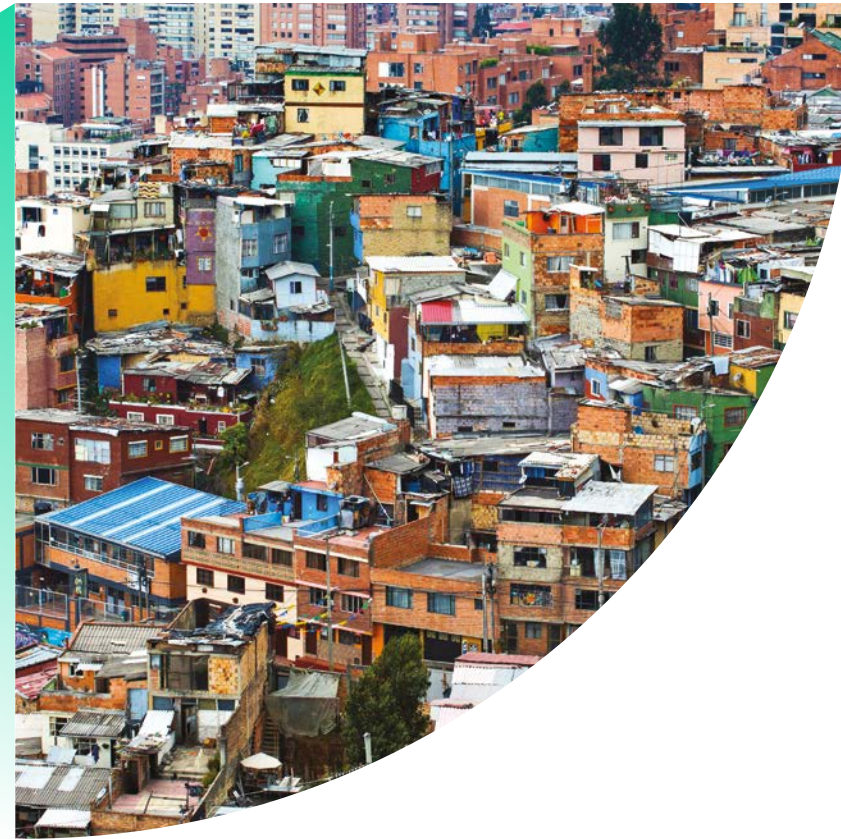
interns, based on the conclusion that not only wealthy young people should be able to participate in such a valuable career development opportunity. We will continue to promote equality within the centre through the policies we promulgate and the culture we create.

What are the centre's priorities for 2019?

I hope that we will be able to launch two additional lines of research during the coming year, for a total of four. Building communications capacity will be a top priority, particularly as we are now at the stage where our research is starting to produce tangible results. To date, our partnerships with academic partners have been largely ad hoc. Another priority is to begin to formalize some of these partnerships through MoUs with a few of the most promising academic partners in the region.

The new WATCH programme in Bolivia is an exciting development. It aims to link up planning and decision-making on water resources management and sanitation. Its analytical tools generate data to help evaluate proposed interventions, not only by how they contribute overall to improved outcomes, but also by how they perform in terms of gender, age cohort and social class.

These are our main priorities for 2019. There are others and these will evolve as the centre does. We have two core commitments, and these should extend beyond a single annual planning cycle. Our first commitment is to pursue our priorities in a way that promotes the culture of transparency, trust and responsibility that we are seeking to establish in the centre. Our second is to remember that our work must support SEI's vision of a sustainable, prosperous future for all.



Latin America profiles



Ivonne Lobos Alva
Research Fellow

How did you begin your career?

My background is in environmental engineering and my career began in international development organizations, such as the Canadian International Development Agency and the European Commission, in rural development, disaster risk reduction and natural resource management. I did most of this work in Central America.

Recognition of the need to develop effective policies that support the implementation of the strategies I was working on led me to transition into research, and to specialize in the role of natural resources in environmental governance. After eight years in Germany, working on soils, land and sustainable development, I moved back to Latin America to join the new SEI centre.

What motivates you in your work?

An equal sense of optimism and frustration. We need urgent solutions for pressing environmental and development issues, but we are not moving fast enough. Scientific

reports alone will not stimulate action: I'm motivated by making compelling policy arguments, based on scientifically sound knowledge. This can mean presenting the extent of resource degradation in light of development trends, determining the impacts of degradation on livelihoods, or making an economic case for sustainable resource use. Broadly, I work to address natural resource degradation through global policies and to support their implementation at the country level.

Can you tell us about your role at SEI?

I am the lead Research Fellow for work on the Sustainable Development Goals at the centre. My job involves building a vibrant research programme for SDG implementation in Latin America. This work builds on the profound transformations that are under way in the region, which offer a perfect stage to develop new insights on land use, agriculture, food systems and ecosystems. I will also study the impacts on livelihoods of different actions aimed at achieving the SDGs related to land use, ecosystem restoration, agricultural development and climate mitigation.

Juan Pita
Administrative Assistant

How did you begin your career?

Well, this is my first professional job. Before coming to SEI I worked as a freelancer in the conference and exhibitions industry in my home town, Villavicencio. Working at SEI has been a tremendous adventure, meeting new and experienced people with passion and knowledge. For me, working here is a life-changing experience.

Tell us about your role at SEI and what you enjoy most about it.

I'm the administrative assistant. I keep the centre office running smoothly and keep things up to date. I always try to offer my

colleagues a comfortable and efficient workspace. My task is to support them in all the boring things so that they can focus and make great contributions to their projects. From the smallest to the most complex tasks I am always there for what they need. I really enjoy being part of something big, contributing to the development of our region. I really like that my colleagues ask for my opinion.

What motivates you in your work?

For me, SEI is a powerful opportunity to learn about work life. I want to work to pay some debts and, in the medium term, start a postgraduate degree. I aim to keep improving my skills in English and I enjoy Bogotá, a beautiful city.



SEI in 2018

Highlights in research, policy and engagement

Collaborating with Southeast Asian countries to assess the state of the environment in the region

The Association of Southeast Nations (ASEAN) in collaboration with SEI publishes the ASEAN Fifth State of the Environment Report, a major assessment which shows environmental challenges growing in number and complexity in Southeast Asia. SEI was commissioned by the ASEAN Secretariat to produce the fifth regional assessment, which supports decision-makers throughout the region in making informed policy choices. www.sei.org/featured/environment-southeast-asia



2018

January

February

Research partnership with the American Council of Learned Societies

In the US, SEI is selected by the American Council of Learned Societies (ACLS) as a host organization for the Mellon/ACLS Public Fellows Program. Jessica Koski starts her fellowship at SEI's Seattle office as a Climate Policy Associate, contributing to SEI's work on emerging topics in climate policy, including low-carbon cities, carbon pricing strategies, climate finance, and the climate implications of oil and coal extraction. www.sei.org/featured/sei-selected-host-mellon-acls-public-fellow

How to manage assets in a sustainability transition

The financial sector must be part of making life on this planet sustainable. Alongside the partnership with the Government of Sweden and the Stockholm School of Economics in the Stockholm Sustainable Finance Centre, SEI expands its portfolio of work on green finance, with this report on how to manage assets that are left behind in a sustainability transition. The report looks at how to do this so that there are fewer unnecessary investments, less risk and fewer negative social consequences. www.sei.org/publications/framing-stranded-assets-age-disruption

At COP24, SEI's substantial body of work on phasing down fossil fuel production allowed us to ensure that doing so was shown as a critical step to meeting the Paris Agreement goals

A key voice in the Talanoa Dialogue

SEI is selected as a research representative in the Talanoa Dialogue. This consultative process invites researchers and civil society actors to engage with the UNFCCC for a global conversation on how to increase ambition to meet the goals of the Paris Agreement. The consultation starts in Bonn in May and culminates at COP24 in Katowice, where SEI takes part in the ministerial roundtable. SEI's substantial body of work on fossil fuel production allowed us to ensure that the phase down of fossil fuel production was highlighted as a necessary step to meeting Paris Agreement goals. www.sei.org/featured/sei-brings-expertise-bonn-climate-talks

A framework for action on air pollution to improve health and meet climate goals

At an event during the UN Climate Change Conference in Bonn, partners in the Climate and Clean Air Coalition presented a new framework for rapidly reducing near-term warming and achieving national climate targets, with huge benefits for human health. SEI's Johan Kuylenstierna says, "With millions of people dying prematurely from air pollution each year, the benefits of emission reductions for climate and health reasons urge us to act soon." www.sei.org/featured/maximizing-benefits-path-achieving-global-climate-goals-way-forward

March

April

May

June

Landmark report on land degradation

SEI contributes to major assessment that sets out the best available evidence to support better-informed decisions to combat land degradation, drawing on more than 3000 sources from science, government, and indigenous and local knowledge. "This report reveals that land degradation, in all its different forms, now undermines the well-being of almost half the population of the planet," says Toby Gardner, SEI Senior Research Fellow and one of the coordinating lead authors of the assessment. "The 129 State Members of IPBES call directly for major, transformative changes in consumption patterns, demographic growth, technology and business models." www.sei.org/featured/ipbes-land-degradation

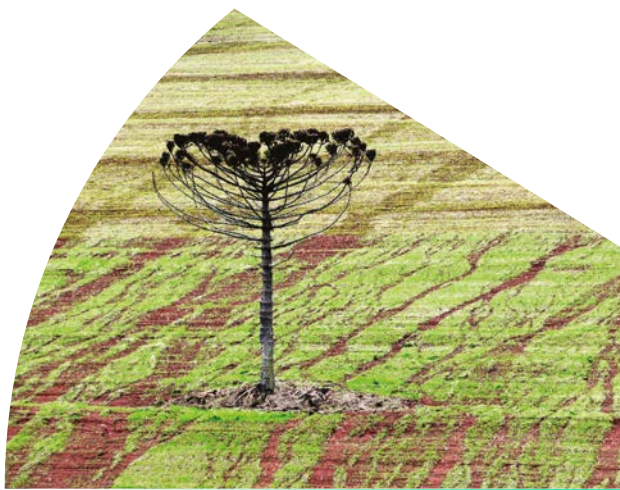
Partnership with Myanmar government agency for sustainable and equitable water management

SEI partners with Myanmar's Directorate of Water Resources and Improvement of River Systems (DWIR) and Myanmar Environment Institute to strengthen research, build capacity and offer policy insights into critical environmental issues in Myanmar. The partnership builds on SEI's work in the Chindwin River basin since 2013, where SEI has helped to set up a new local institution to manage the river for all users. www.sei.org/featured/seis-partnership-key-myanmar-water-agency-boost-environmental-research



Trase Yearbook reveals how companies and consumer markets are linked to soy deforestation risk in Brazil

Trase.earth is a tool that brings unprecedented transparency to commodity supply chains, revealing new pathways towards a deforestation-free economy. The first Trase Yearbook provides a first systematic assessment of: sourcing patterns of major soy-buying companies and countries, the exposure to deforestation risk of the major companies that dominate Brazil's soy exports, and the exposure to deforestation risk of major consumer markets for Brazilian soy, including the EU and China. www.sei.org/featured/trase-yearbook-2018-launch



August

July

Evidence for better management of the Baltic Sea

SEI collaborates on the State of the Baltic Sea, a comprehensive report on the environmental status of the Baltic Sea in the period 2011–2016, under the Baltic Marine Environment Protection Commission (HELCOM). The report assesses ecosystems, biodiversity, and eutrophication, and supports adaptive and regionally coordinated management to improve the environmental conditions in the Baltic Sea. www.sei.org/publications/state-baltic-sea-report

New hub for climate security

Climate change undermines human security and the resilience of societies and ecosystems, and will impact the world's vulnerable people the most. The Stockholm Climate Security Hub is an initiative of the Swedish Ministry for Foreign Affairs and is a partnership between SEI, Stockholm International Water Institute and Stockholm International Peace Research Institute. The hub explores the ways in which climate change leads to human insecurity and undermines sustainable and peaceful societies, and supports shifts towards transformative solutions. www.sei.org/featured/swedish-initiative-climate-security-hub

Driving debate at the Global Climate Action Summit

SEI brings together local and international policy-makers in California to debate the importance of limiting oil supply. The panel discussion hosted by SEI and NextGen Policy is held as part of the high-profile Global Climate Action Summit. Uniquely at the summit, it tackled head-on the idea of phasing down fossil fuel production. www.sei.org/featured/comprehensive-approach-is-best-to-limit-oil-supply

Solutions for the air pollution crisis in Asia

Fewer than 8% of people living in Asia breathe clean air, as classified by the World Health Organization, with major impacts on people's health. Evidence on the causes and health problems of air pollution are well known – it is solutions that are needed. A report, co-authored by SEI for the UN Environment Programme, identifies 25 clean air measures that can positively impact human health, crop yields, climate change and socio-economic development, as well as contributing to achieving the Sustainable Development Goals. Implementing these measures could help one billion people breathe cleaner air by 2030 and reduce global warming by a third of a degree Celsius by 2050. www.sei.org/featured/air-pollution-solutions-asia

Implementing these measures could help one billion people breathe cleaner air by 2030 and reduce global warming by a third of a degree Celsius by 2050

September

Good Life Goals

The Good Life Goals are launched at UN Headquarters in New York. The aim of the goals is to bridge the gap between the 2030 Agenda and the sustainable lifestyles movement and to inspire individuals to participate in the conversation and act on the SDGs in their everyday lives. The Good Life Goals are developed under the 10-Year Framework of Programmes for Sustainable Consumption and Production (10YFP), in which SEI is representing the Government of Sweden, which co-leads the programme. www.sei.org/featured/good-life-goals-sustainable-development-gets-personal

October

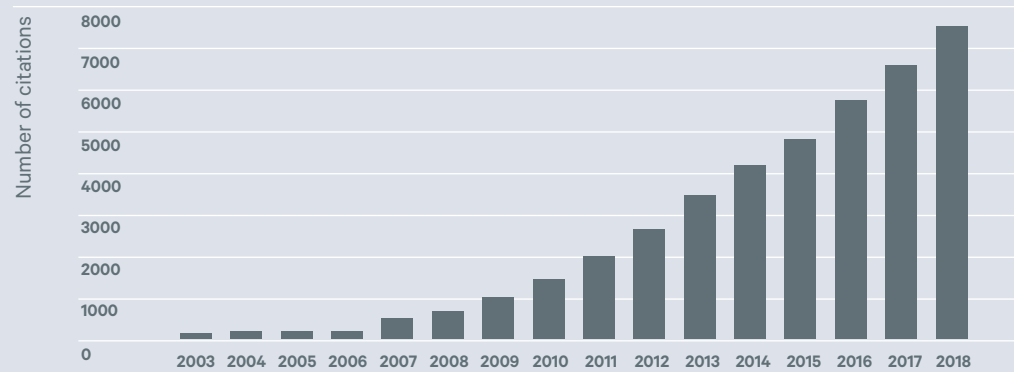
Knowledge support on renewables for Kenya's development blueprint

SEI Africa hosts a conference for more than 50 representatives of government, the private sector, civil society and academia at the World Agroforestry Centre in Nairobi, focused on transitions to low-carbon development pathways in low-income countries. SEI presents findings from the TRANSrisk project, which has put forward options for achieving Kenya's development aims and climate targets at the same time. Government representatives discuss their priorities for development and the energy sector. Dr Eng. Joseph Njoroge, Principal Secretary at the Kenyan Ministry of Energy, says: "The energy sector is one that will play a pivotal role in the attainment of our government's development blueprint, which seeks to enhance manufacturing, food security, universal healthcare and affordable housing." www.sei.org/featured/renewable-energy-nairobi-conference

November

December

Scientific impact in 2018



Citations of peer-reviewed articles with SEI authors, 2003–2018. Source: Web of Science.

Evidence is the bedrock of our engagement in policy and practice and of our communications, and 2018 showed our performance in high-quality scientific publishing exceeding the previous year once again. In 2018 our researchers published more than 100 peer-reviewed articles, increasing our output by 10%.

Our citation rate also increased substantially compared with 2017, to 7500 (see graphic).

Below is a selection of 10 of the most impactful and significant journal articles published in 2018.

On biodiversity and ecosystems

The future of hyperdiverse tropical ecosystems

Barlow, J., França, F., Gardner, T. A., Hicks, C. C., Lennox, G. D., Berenguer, E., Castello, L., Economo, E. P., Ferreira, J., Guénard, B., Leal, C. G., Isaac, V., Lees, A. C., Parr, C. L., Wilson, S. K., Young, P. J. and Graham, N. A. J. (2018). *Nature*. 559. 517–526. doi.org/10.1038/s41586-018-0301-1

Biodiversity loss and degradation is a global problem, but tropical ecosystems

are particularly critical. This paper quantifies and reviews the global importance of tropical biodiversity, evaluates the vulnerability of tropical ecosystems to proximate stressors, and assesses whether global and regional socio-economic changes will exacerbate or ameliorate biodiversity loss. The tropics host a disproportionate number of species and many of these are not even known. It is estimated that it would take 300 years to catalogue fully all species. The authors examined different kinds of stressors including a fresh analysis of socio-economic drivers, and conclude that urgent action is needed.

On fossil fuels

Limiting fossil fuel production as the next big step in climate policy

Erickson, P., Lazarus, M. and Piggot, G. (2018). *Nature Climate Change*. 8. 1037–1043. doi.org/10.1038/s41558-018-0337-0

The study of climate policy was for a long time focused on the demand side: how to reduce emissions through economic and regulatory instruments, such as carbon taxes. This paper takes stock of the growing

research into supply-side climate policy; that is, to regulate or disincentivize the production of fossil fuels. In addition, it looks at recent policy decisions by national governments to phase out extraction of fossil fuels. In this way, a theoretically and practically informed argument is made that this approach might be the next big step in climate policy. The paper then provides a case study of California, as the potential next mover, and outlines different ways forward and assesses feasibility and possible consequences on world supply and prices.

On the water-energy nexus

Water-energy nexus: a review of methods and tools for macro-assessment

Dai, J., Wu, S., Han, G. et al. (2018). *Applied Energy*, 210, 393–408. doi.org/10.1016/j.apenergy.2017.08.243

Over the past decade, analysing issues using the lens of the “water-energy nexus” has become increasingly popular in scientific and policy communities. Based on an extensive survey of recent scientific literature on the water-energy nexus, the authors identify 70 studies and select 35 comprehensive studies for review. The paper makes an important scientific contribution by systematically comparing these various models and frameworks, and concludes that more tools are needed for governing and implementing a “nexus” approach, as opposed to understanding it.

On climate change adaptation

Mainstreaming climate adaptation: taking stock about “what works” from empirical research worldwide

Runhaar, H., Wilk, B., Persson, Å, et al. (2018). *Regional Environmental Change*. 18(4). 1201–1210. doi.org/10.1007/s10113-017-1259-5

Mainstreaming climate adaptation into sectoral areas, such as infrastructure, water, energy, disaster risk or health, is often cited as the most common-sense approach to enhancing climate resilience and has become a standard policy recommendation. Yet little is known about what makes it effective and when it works. This systematic review looks at more than 100 cases and concludes that there is a significant implementation gap when it comes to adjusting sectoral policies in practice. Further, it concludes that political commitment, policy entrepreneurs and focusing events are among the most critical drivers of mainstreaming. As such, it offers a much-improved evidence base for a much-used policy approach to climate adaptation worldwide.

On climate equity

Fairly sharing 1.5: national fair shares of a 1.5° degrees C-compliant global mitigation effort

Holz, C., Kartha, S. and Athanasiou, T. (2018). *International Environmental Agreements: Politics, Law and Economics*. 18(1). 117–134. doi.org/10.1007/s10784-017-9371-z

The question of how to share the burden of reducing greenhouse gas emissions, in the face of development needs across many parts of the world, has shaped climate negotiations since they started. Although alternative discourses to burden-sharing are emerging, such as win-win opportunities for taking climate action and projecting positive leadership, the concern with equity in the transition ahead is still central. With the new target to limit global warming to 1.5 degrees, this paper presents plausible ways of conceiving national fair shares under that overall target. With a scientifically robust and transparent approach, the findings are of direct relevance to ongoing climate negotiations.

On environmental evidence synthesis

The role of reporting standards in producing robust literature reviews

Haddaway, N.R. and Macura, B. *Nature Climate Change*. 8. 444–447. doi.org/10.1038/s41558-018-0180-3

On air pollution and health

Estimates of the global burden of ambient PM2.5, ozone and NO₂ on asthma incidence and emergency room visits

Anenberg, S., Henze, D., Tinney, V., et al. (2018). *Environmental Health Perspectives*. 126(10). 107004. doi.org/10.1289/EHP3766

On disaster risk

Transforming development and disaster risk

Thomalla, F., Boyland, M., Johnson, K., Ensor, J., Tuhkanen, H., Gerger Swartling, Å. et al. (2018). *Sustainability*. 10(5). 1–12. doi.org/10.3390/su10051458

On sustainable supply chains

A spatially explicit data-driven approach to calculating commodity-specific shipping emissions per vessel

Schim van der Loeff, W., Godar, J. and Prakash, V. (2018). *Journal of Cleaner Production*. 2015. 895–908. doi.org/10.1016/j.jclepro.2018.09.053

On behavioural science

Exploring household energy transitions in rural Zambia from the user perspective

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

Funding sources above SEK 45 000

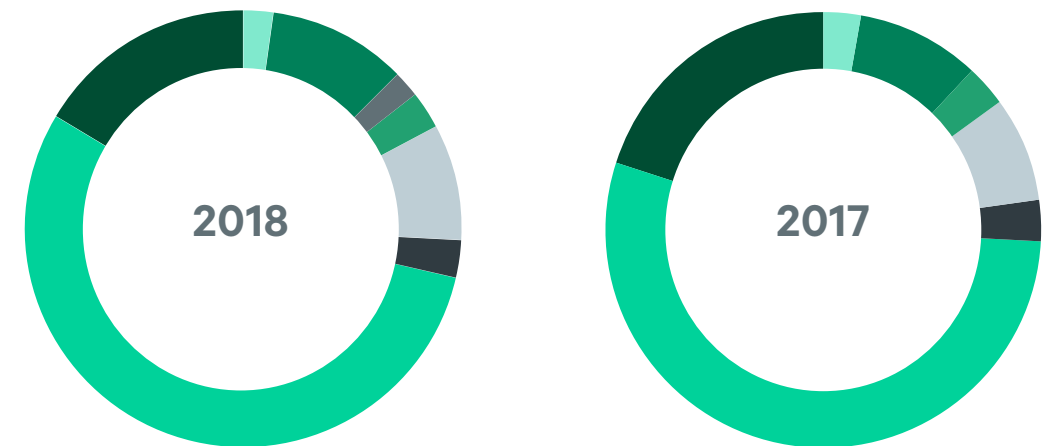
American Council of Learned Societies	216 111	European Commission via Ecofys	183 470
Arabian Gulf University	96 313	Netherlands b.v.	1 098 970
Asian Disaster Preparedness Centre (ADPC)	124 275	European Commission via Global Canopy	495 800
AXA Research Fund	167 704	European Environment Agency	278 946
Bariloche	63 021	Fonerwa via Albertine Rift Conservation Society (Arcos)	450 461
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California State Water Resources Control Board	2 053 309	Global Green Growth Institute	633 083
California State Water Resources Control Board via subcontract with ICF	2 552 420	Global Philanthropy Partnership	5 418 737
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Center for International Climate Research (CICERO)	121 643	Gordon and Betty Moore Foundation via The Nature Conservancy	173 587
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Centre for Ecology and Hydrology	304 586	International GmbH	668 769
ClimDev via ATPS Network	371 212	Greenhouse Gas Management Institute	197 378
CLUA via Global Canopy	104 734	Hugo Carlssons stiftelse via Jernkontoret	222 204
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Columbia Riverkeeper	65 937	Institute For Global Environmental Strategies (IGES)	219 375
Critical Ecosystem Partnership Fund (CEPF)	1 728 091	Institute for Governance and Sustainable Development (IGSD)	68 071
Department for International Development (DFID) via Global Canopy	257 633	International Union for Conservation of Nature (IUCN)	1 088 423
Department for International Development (DFID) via University of Oxford	1 693 119	Korea Environment Institute (KEI)	1 043 453
Department for International Development (DFID) via WYG International Ltd	2 050 401	KR Foundation	178 898
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EST-FOR OÜ	162 887	Ministry of Infrastructure and Water Management, The Netherlands	641 776
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Sida via Future Pioneers for Empowering Communities Members	98 181
Sida via International Union for Conservation of Nature (IUCN)	91 027
Sida via The Swedish Patent and Registration Office	139 545
Sida via The Swedish University of Agricultural Sciences	1 647 668
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Swiss Development Corporation	379 446
The Conservation of Arctic Flora and Fauna (CAFF)	307 043
The Finnish Innovation Fund	433 778
The Moorland Association	226 964
The Peak District National Park Authority	68 089
The Swedish Civil Contingencies Agency (MSB) via Swedish Meteorological and Hydrological Institute (SMHI)	516 812
The Swedish Energy Agency	2 066 461
The Swedish Energy Agency via HYBRIT Development AB	491 305
The Swedish Environmental Protection Agency	3 111 233
The Swedish Environmental Protection Agency via Statistics Sweden	620 381

The Swedish Foundation for Strategic Environmental Research (Mistra)	21 706 609
The Swedish Foundation for Strategic Environmental Research (Mistra) via Stockholm School of Economics	682 819
The Swedish Foundation for Strategic Environmental Research (Mistra) via Umeå University	86 130
The Swedish Meteorological and Hydrological Institute (SMHI)	231 880
The Swedish Ministry for Foreign Affairs	2 002 439
The Swedish Ministry of the Environment and Energy	5 731 001
The Swedish Ministry of the Environment and Energy via Formas	32 000 000
The Swedish Red Cross	253 810
The Swedish Research Council (Vetenskapsrådet)	665 987
The Swedish Research Council (Vetenskapsrådet) via Lunds Universitet	120 098
The Swedish Research Council Formas	13 210 069
The Swedish Research Council Formas via Stockholm Resilience Centre	385 786
The Swedish University of Agricultural Sciences	59 590
The University of Sydney	85 096
The Wilderness Society	267 318
Tufts University	202 341
US Army Corps of Engineers	241 589
US Department of Energy	103 497
US Dept of Agriculture	968 527
US Dept of Energy	1 607 549
US Environmental Protection Agency	1 675 478
Umeå Municipality	274 401
United Nations	5 283 917
United Utilities Water Ltd	340 446
University College London	83 920
USAID	1 322 055
USAID via Asian Disaster Preparedness Centre (ADPC)	1 149 006
USAID via subcontract with Abt Associates	2 464 217
USAID via subcontract with AECOM International	467 730
USAID via subcontract with ICF	51 745
USAID via subcontract with IRG (Engility)	130 851
USAID via subcontract with Winrock	3 078 973
Vinnova (Sweden's innovation agency)	371 255
Vinnova (Sweden's innovation agency) via Jernkontoret	94 293
Vinnova (Sweden's innovation agency) via Svemin	736 388
World Bank Group	2 790 584
World Wide Fund for Nature (WWF)	480 295
Yolo County Flood Control and Water Conservation District	1 117 939

SEI financial statistics

SEI global (pro forma) income, by centre



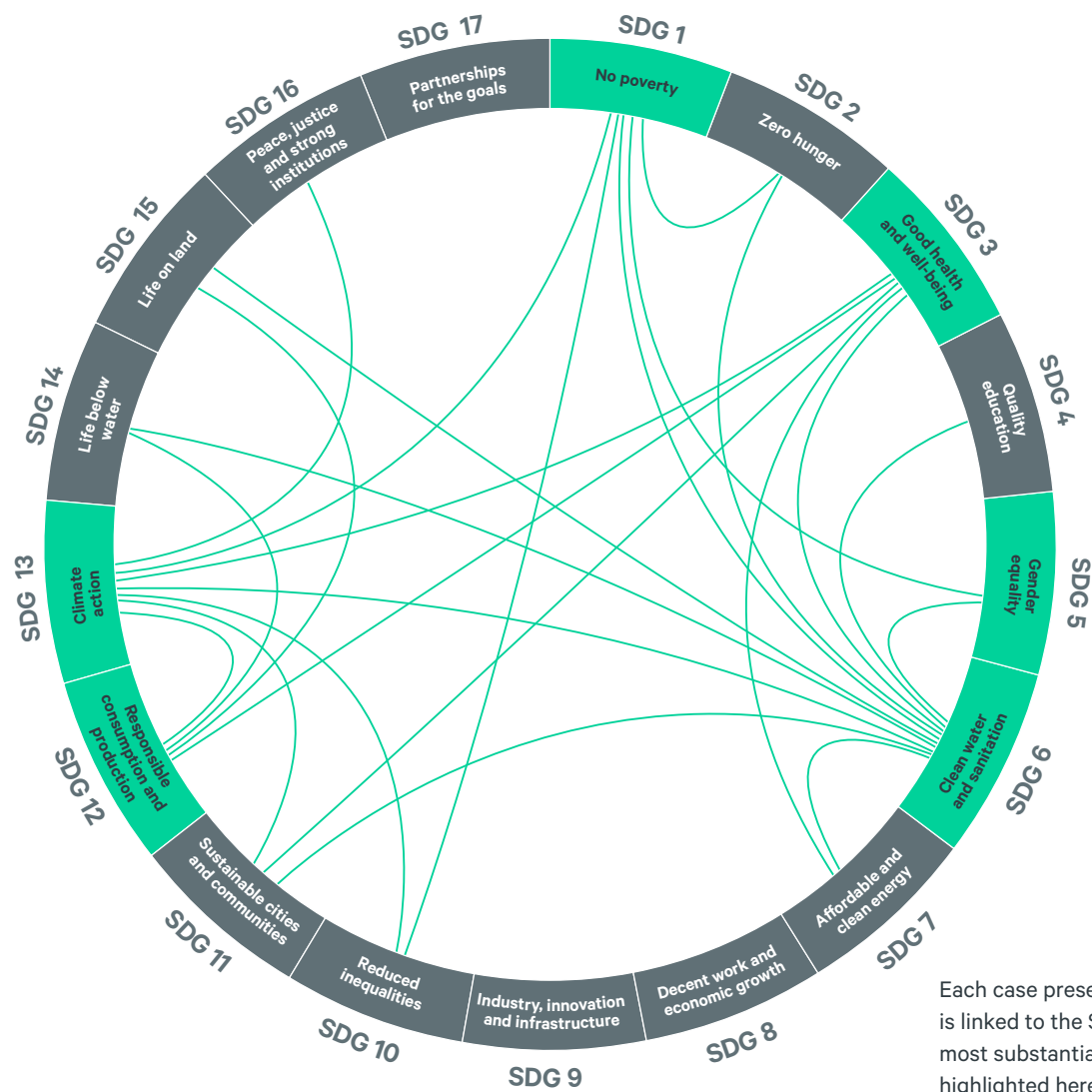
	RESEARCH vol. in SEK millions	
	%	
SEI Africa	2%	6.6
SEI Asia	10%	28.3
SEI Latin America	2%	4.8
SEI Tallinn	3%	8.1
SEI York	9%	23.5
SEI Oxford	3%	7.7
SEI Stockholm/HQ	55%	151.0
SEI US	16%	44.6
Total	100%	274.6

	RESEARCH vol. in SEK millions	
	%	
SEI Africa	3%	6.9
SEI Asia	9%	24.1
SEI Latin America	0%	0.0
SEI Tallinn	3%	7.8
SEI York	8%	20.9
SEI Oxford	3%	8.1
SEI Stockholm/HQ	54%	140.4
SEI US	20%	51.7
Total	100%	260.0

**SEI works
with multilateral
organizations,
governments and
industry to translate
the ambitious
2030 Agenda
into actionable
policies and
effective practice.**

Chains of change

The 2030 Agenda for Sustainable Development can only be achieved through coherent policies and integrated action. SEI enables people in policy and practice to deliver joined-up solutions for change.



● SDGs to which the case studies most directly contribute
— Interactions with other SDGs

Each case presented in this section is linked to the SDG to which it most substantially contributes, highlighted here in green. The chords across the circle represent the many other connections that each case has to other SDGs, highlighting the co-benefits of our work.



Making an impact, from local to global

This section presents seven stories about what we achieved in 2018. The stories show how we work with partners to enable change at different scales, using approaches that are coherent across sectors and over time.

For example, we drew on behavioural science to help develop weather insurance that can protect smallholders in Uganda against climate impacts (page 26).

At the urban scale, we collaborated with local people and city planners in Nairobi (page 28) to deliver policy outcomes that can improve the health of the city's most vulnerable people.

At the level of practice, SEI teamed up with water practitioners and citizens in Bolivia, using our Water Evaluation and Planning (WEAP) software to meet local people's calls for fair and efficient access to water resources. The result was a model that addressed inequalities among service users because it included gender and social equality as a core part of its design (page 30).

At the climate negotiations in Katowice we built on our legacy of work on climate justice. SEI's long-term engagement and analysis has been a linchpin in the Civil Society Review, the coalition of NGOs that reviews international climate policy each year to ensure that the issue of climate equity stays high up on the policy agenda (page 38).

Collaborating with national governments to deliver on the 2030 Agenda

If Colombia chose to use a local river to irrigate farmland in an effort to boost food security, how would this interact with Goal 14, which aims to protect aquatic wildlife? How can Sri Lanka establish whether policies to achieve greater income equality will strengthen or work against efforts to integrate climate measures into policy and planning?

The 2030 Agenda is highly ambitious in scope and scale. Avoiding trade-offs and identifying synergies between the SDGs is critical if they are to be achieved.

In 2018 SEI continued to collaborate with decision-makers in Sri Lanka, Colombia and Mongolia, using our frameworks and tools, to establish how pursuing particular SDG targets may influence efforts to achieve others.

Last year the Mongolian Government confirmed it will use SEI's SDG interaction tool in policy-making, and directed ministries to develop policies using insights from the tool.

After a series of workshops in 2018, Sri Lanka has decided to use the tool to inform the next stage of its national development plan and annual budget process.

And in Colombia, SEI partnered with UNEP to support implementation of the environmental aspects of the SDGs. Colombian officials are now one step closer to understanding how the SDGs interact at a regional and national level.

The partnership with SEI for the analysis of SDG interactions opens a space to discuss how we can join efforts and catalyse results to build a more equitable and sustainable country. The exercise in Medellin was extraordinary and we need to continue encouraging these efforts.

– Lucas Gómez García – Director of Monitoring and Evaluation of Public Policy at the National Planning Department of Colombia

SEI takes a long-term view of engagement, developing coherent approaches over time and between levels, from households to global policy processes. In this way we aim to forge chains of change – moving coherent policy into effective practice.

SDG 1

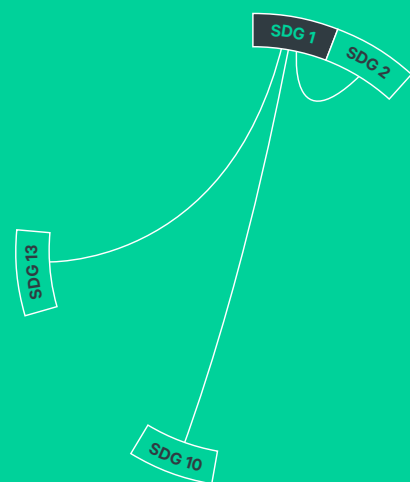
No poverty

We work to understand the confluence of factors – the social, environmental, political and economic circumstances – that keep people in poverty.

Connecting to the SDGs

Many of the technical solutions put forward to reduce rural poverty (SDG 1: No poverty) around the world look good on paper but fail to attract the intended users. This study used innovative methods to help insurers design viable products that meet users' needs and at the same time serve as effective climate adaptation (SDG 13: Climate action). Weather index insurance can also help to ensure smallholders can purchase food when their own crops fail (SDG 2: Zero hunger). Insurance packages targeted at poorer farmers can also help to reduce inequalities in climate adaptation (SDG 10: Reduce inequalities).

SDG co-benefits



Weather insurance that works for African farmers

In Uganda, SEI is helping to develop a kind of insurance for smallholders that can shield them from climate shocks.

Climate change is altering weather patterns and disrupting agricultural cycles, resulting in higher variability in crop yields and food prices, with knock-on effects for poverty and food security, especially in low-income countries.

Smallholder farmers are particularly vulnerable to climate shocks and are usually ill-equipped to cope with the associated risks. What's more, uncertain weather patterns often cause them to avoid risk, for example by choosing not to invest in technologies or services that could boost their productivity and incomes. In this way climate impacts can both cause and perpetuate poverty for smallholders.

Weather index insurance

Insurance can help to shield smallholders against climate shocks, allowing them to buy food when their own crops fail and giving them the confidence to invest.

An innovative solution, "weather index insurance", has been put forward as a way to provide this cover while avoiding the need to verify claims, which can be highly costly for insurers relative to the low value of the crops insured. Instead of being based on claimed losses, weather index insurance payouts are made at predetermined rates after the occurrence of objectively verifiable weather events, such as extended periods of low rainfall.

However, while offering weather index insurance to low-income smallholders makes sense in principle, it has had disappointing results in practice. In particular, the products on offer have been found to undermine traditional community relations and have tended to attract only wealthier farmers.

An innovative solution

Using a toolkit developed by the SEI Initiative on Behaviour and Choice, SEI worked alongside partners from the University of East Anglia (UEA) and Lab-in-the-Field (a non-profit research institution in eastern Uganda) to see how weather index insurance could be rolled out more successfully in Uganda.

In a case study in Mbale district, Uganda, a combination of service design methods with discrete choice experiments was used to gain insights about the local smallholders. The project team investigated the needs and preferences of the local farmers, including what drives their behaviour in relation to crop cycles, investments and agricultural financing. The team also investigated the severity and frequency of existing risks, and how farmers cope with them.

Based on the findings the researchers identified three main farmer "archetypes" that insurance companies can use to design a portfolio of insurance products tailored to the needs of smallholders like those in Mbale.

A development economist at UEA, Professor Arjan Verschoor, said: "One-size-fits-all development solutions often fail in practice because they wrongly assume the beneficiaries are a homogeneous group. The combination of methods revealed rich detail about this group of smallholders and what solutions might best meet their varied needs."

Future applications

Study results were presented at Uganda's National Forum of Agriculture and Food Security and broadcast on national television. The Economic Policy Research Center (EPRC), a Ugandan think tank that advises government ministries, including the Ministry for Agriculture, has requested that the team apply its methods in designing and implementing future agricultural programmes aimed at improving the livelihoods of smallholders.

The combination of methods revealed rich detail about this group of smallholders and what solutions might best meet their varied needs.

– Arjan Verschoor, Development Economist, UEA



SDG 3

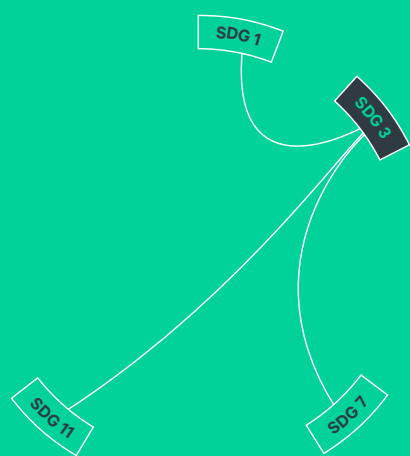
Good health and well-being

Human well-being is one of the ultimate aims of SEI's work. Our research explores the connections between human health and environmental sustainability. Our work has made particular contributions to policies on air pollution, access to sanitation and maternal health.

Connecting to the SDGs

Joined-up action on air pollution has a long history at SEI and we have continued to innovate, working with people in Nairobi exposed to some of the city's worst pollution to generate data and insights for effective municipal policy, as well as contributing to policy design. Dealing with urban air pollution not only contributes to health goals; it also has an impact on poverty (Goal 1) and creates more liveable cities (Goal 11). There are strong connections with the provision of clean and renewable energy (Goal 7).

SDG co-benefits



City plan for cleaner air and better health

SEI is helping develop legislation on air quality in Nairobi that will improve the lives of the city's most vulnerable people.

In Nairobi, as in many fast-growing cities around the world, air quality is poor and getting worse. The major sources of pollution are open burning of waste, vehicle emissions, industrial emissions and traditional household cooking. Toxic fumes such as particulate matter, nitrous oxide and black carbon cause serious health problems and are also linked to premature birth and low birth weight.

In Kenya, the number of reported cases of diseases of the respiratory system increased by 63% over a four-year period from 12.2 million in 2012 to 19.9 million in 2016. The health impacts of air pollution disproportionately affect the poor and vulnerable and are a serious drag on development and economic progress.

Action for Nairobi and its most exposed communities

Tackling the problem is now a priority for the Nairobi City County and the Government of Kenya. Yet while there are legal and policy frameworks for addressing air pollution at the national level, until now there has been no policy or plan for managing it at the city level,



even though the constitution devolves air pollution control to the county governments.

To help address these challenges, SEI Africa partnered with the Nairobi City County Government, Kenya's Ministry of Environment and Forestry and UN Environment to develop an air quality policy and air quality action plan for Nairobi County.

Both processes are slated to be complete by May 2019, and they should provide a framework for the county government to coordinate all interventions on air quality and to harmonize these with the work of national government agencies responsible for related sectors, including energy, waste management and transport.

David Makori, Chief Officer for Environment and Natural Resources, Nairobi City County said, "The support given by SEI Africa to the Nairobi County Government has come at a very critical time. We are experiencing increased air pollution in the city, especially from vehicle traffic, waste burning and industry. The policy and action plan will provide a roadmap to enable the county government

The support given by SEI Africa to the Nairobi City County has come at a very critical time. The policy and action plan is a roadmap to enable the county government and stakeholders to take action to improve air quality and the health of city residents."

and stakeholders to take action to improve air quality and the health of city residents."

Working with local communities

SEI staff have also worked alongside local people in Nairobi's Mukuru informal settlements in a citizen science project. As well as providing data on air pollution levels in the community, SEI's research has revealed the drivers of personal and community exposure, and people's perception and daily experience of air pollution and its impact on the community. Both the quantitative and the qualitative information has been key to Nairobi's efforts to tackle air pollution.

Dr Alfredo Owiti, Head of Clinical Services with Nairobi City County Government, said, "It has been our experience that diseases directly or indirectly linked to air quality account for the main clinical burden across all county healthcare facilities. Engagement with SEI has provided quality on-site information helping the county address logistical challenges. This engagement is crucial as the health sector prepares its Integrated Health Development Plan for the next five years."

A model for tackling urban pollution across Africa?

SEI, together with UNEP, is developing a new project that will combine satellite data and ground-based sensors to provide air pollution information to policy-makers and extend the work, using Nairobi, Addis Ababa, Kampala, Cape Town and Dakar as pilot cities.

SEI's William Apondo, lead researcher in the air pollution work in Nairobi, said, "One limitation of our past work has been a focus on one type of pollution in isolation, without considering others, like water, soil and noise pollution, which if taken together cause cumulative risks to communities. In the next phase of our research we will start to explore what we call "compound pollution", using transdisciplinary approaches to assess cumulative risks in communities."



SDG 5

Gender equality

SEI's work explores the gender dimensions of vulnerability, and opportunities for women to play a greater role in shaping sustainable development.

Connecting to the SDGs

This project developed a new kind of water model that illuminates the disparities within a watershed – including those with gender aspects. It is one step on the way to ensuring equitable access to, and responsibility for, water, sanitation and hygiene. The work also has co-benefits with SDG 6 (clean water and sanitation) and SDG 1 (no poverty).

SDG co-benefits



New water model points way to gender and social equality

SEI researchers teamed up with local partners to build a new kind of water model in a small Bolivian community. The results illuminate a path to ensuring policies help the most vulnerable.

Valeriana Choque Zambrana and her family manage a small farm in Marquina, growing beans, corn and barley to eat at home and to sell in the market. But water demand in her community is increasing, and farmers like Valeriana fear that an increasingly unreliable water supply threatens their livelihood.

The community has asked local authorities to help them ensure water access and efficiency. But to enact policies that help the most vulnerable – and don't exacerbate existing inequalities – policy-makers need models that incorporate gender and social equality aspects.

SEI set out to do that by teaming up with local partners to build a water model in SEI's Water Evaluation and Planning (WEAP) software. Researchers included the supply and demand of small groups within Marquina – a departure from typical watershed models. This proved crucial to understanding underlying inequalities.

Illuminating disparities

Groups were differentiated based on their proximity to the canal system, the water rights of the farmers, and the gender of the water rights holders. Researchers then compared a typical water model of Marquina (in which the town was represented as one group) with this new approach (in which Marquina was split into 14 groups).

The results showed that inequalities can be missed in typical watershed models. While the typical model showed that water shortages are minor, the disaggregated model revealed that, for some groups, their water supply covers less than 50% of their demand. The model was also able to show that some groups do

not get the water to which they are entitled (based on water rights); others get their water, but it's not enough for their crops.

These disparities are the result of various vulnerabilities. Some producers, for example, do not have water rights under the Mit'a, a collective system of management and maintenance that was first established during the precolonial period. Others have rights but aren't getting the promised water, usually because they are downstream.

Women also deal with unique disadvantages. Although many gained water rights as men left to work in cities, they do not hold community leadership positions and they are not elected to represent irrigators. Women's representation is thus limited in community-based decisions.

Applying lessons learned

SEI's model provided a peek into how these dynamics affect the distribution of water, and it

We are few people, but we are still fighting to preserve the agricultural activity in our community.

– Paulino Chavez, former leader of the Organization of Irrigators of Marquina

enables policy-makers to better plan for policies that are sustainable and fair.

The work in Marquina is just the beginning. With the support of the Swedish International Development Cooperation Agency (Sida), SEI will further examine how to integrate poverty and gender considerations in both watershed and sanitation planning, though a new three-year project called Bolivia WATCH.



SDG 6

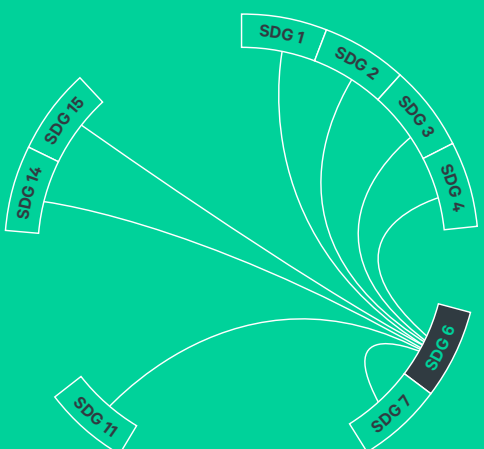
Clean water and sanitation

Water is fundamental to human development, from drinking water and sanitation to agriculture and generating electricity. SEI offers knowledge and solutions for how to manage water resources in a connected way to ensure water, energy and food security for all.

Connecting to the SDGs

The focus of SEI's work on sanitation is on highlighting its strong connections to a wide range of other sustainable development themes. Poor sanitation access threatens health (SDG 3: Good health and well-being) and often incomes (SDG 1: No poverty) and educational opportunities (SDG 4: Quality education) due to sickness. Poorly managed sanitation waste also harms both life on land and life below water (SDGs 14 and 15). By framing sanitation as a resource management issue, SEI also shows the potential benefits to society, as recovered resources can be used as a source of clean energy (SDG 7: Affordable and clean energy), agricultural fertilizer to support food security (SDG 2: No hunger) and more liveable communities (SDG 11: Sustainable cities and communities).

SDG co-benefits



REVAMP: bringing urban waste into the circular economy

Just north of Bogotá, Colombia, the small municipality of Chía is growing fast. Many of the new arrivals are making their homes in periurban settlements, and the twin pressures of a growing population growth and economic activity are overwhelming infrastructure that was built for a smaller town.

The potential health risks are clear. Less than 40% of the wastewater entering Chía's old sewerage system is treated. The rest is discharged untreated into the Bogotá river or a tributary, the Frio, reaching the Colombian capital 15 kilometres or so downstream. Many homes lack any sewer connection, and poorly built and maintained latrines and other on-site sanitation systems pose an additional health threat to urban residents and freshwater ecosystems.

Reducing risks, boosting resources

The municipal authorities in Chía are acutely aware of the need to improve waste management. In 2018 the Chía Environmental Office teamed up with the SEI Initiative on Sustainable Sanitation and researchers from El Bosque University to find out how to meet Chía's waste management needs and at the same time contribute to a range of sustainable development priorities.

The collaboration used SEI's REVAMP (Resource Value Mapping) tool. REVAMP currently takes data on municipal waste flows (including food waste, wastewater and other organic waste) and uses it to calculate how much revenue, plant fertilizer or clean energy (biogas, briquettes) could potentially be produced from it at municipal level. REVAMP can calculate the optimal mix of these outputs for different waste-management and reuse scenarios.

First developed for Kampala, Uganda, REVAMP is also being applied in Naivasha, Kenya. The UrbanCircle and Bolivia WATCH projects that SEI is leading aim to strengthen the tool even further. SEI is also working on creating an open-access online version of REVAMP.

Co-development

Working with stakeholders has been an essential part of the process in Chía – to ensure both local ownership and the accuracy of the REVAMP calculations, as well as to help in further developing REVAMP's capabilities.

Workshops and focus group discussions were first held with stakeholders from a variety of sectors: civil society, business and industry associations, and authorities). The meetings established that there was significant demand for improved waste management and revealed a great local interest in exploring resource recovery options – outcomes that brought the initially reluctant municipal water and waste company on board.

Collaboration with local stakeholders, including the water and waste company, helped to establish a base of high-quality input data about local conditions and waste flows that underpinned the REVAMP version used in Chía.

Local stakeholder knowledge is helping SEI to add more waste streams to the REVAMP tool, for example animal waste. SEI is also using the Chía case to broaden the range of outputs REVAMP can offer, such as the greenhouse gas emissions under each reuse scenario. This will mean REVAMP can show how urban waste-management and reuse decisions can impact multiple SDGs, allowing local decision-makers to prioritize.

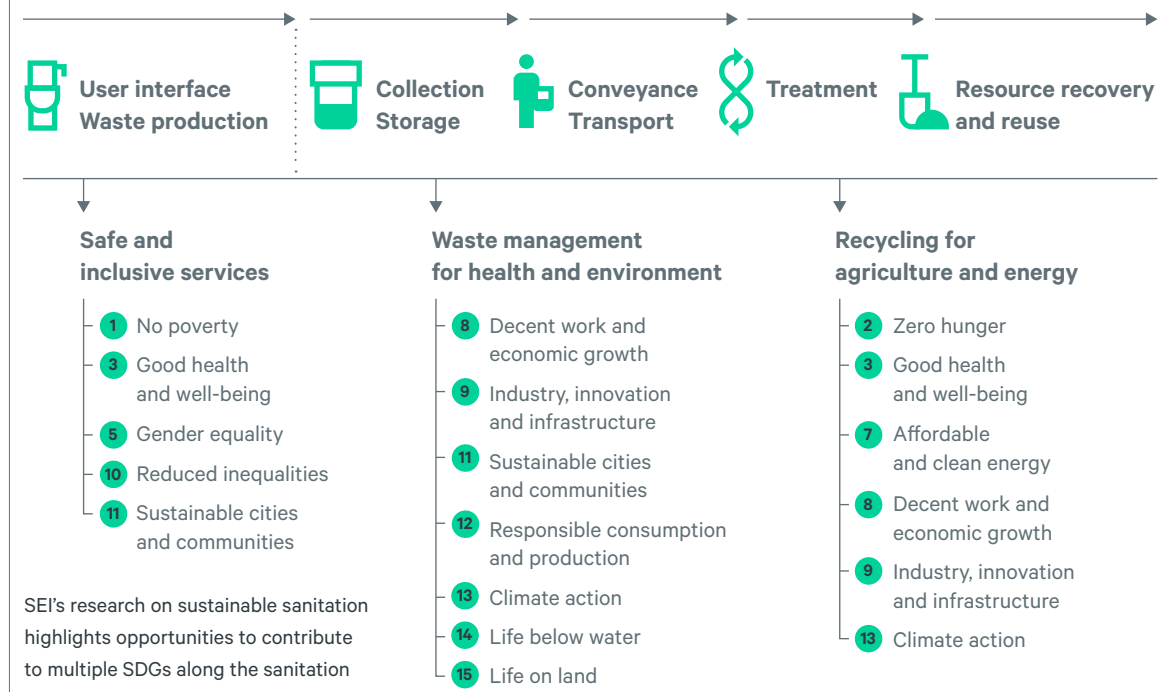
Cleaner and greener

Field studies to gather data on local conditions also revealed that there are already some promising resource-recovery initiatives working with waste in the municipality, though on a small scale. This information will be useful in the next phase of work in Chía, helping to flesh out scenarios and to demonstrate the feasibility of more integrated waste-management solutions in the municipality.

The project also highlighted how vulnerable residents of Chía are exposed to health risks due to inadequate waste management. A prime example is the strips of informal settlements along the two polluted rivers, which have also been affected by flooding in recent years. A study of informal activities – such as gleaning at the regional landfill site – is planned for the next phase of the project in order to explore strategies to reduce the risks and vulnerabilities faced by those involved.

Alongside the project in Chía, SEI established a dialogue with the Colombian Ministry of Environment on the topic of linking waste management with resource recovery. As a result, the ministry committed to adding resource recovery to its list of priority areas for its next programming phase. Thus, the local level supported national-level impact, while thematic support from the national level incentivized further action at the local level. SEI will continue engagement from the national authorities, to the interests of having broader policy impact.

Sanitation service chain



SEI's research on sustainable sanitation highlights opportunities to contribute to multiple SDGs along the sanitation service chain. While REVAMP highlights opportunities at the last stage, resource recovery and reuse, the entire service chain needs to be designed in an integrated way.

SDG 12

Sustainable consumption and production

Production and consumption are the basis of the economy. They are also the main ways in which humans affect their environment. SEI seeks to understand how production and consumption are connected, how they impact the natural world and people in other countries, and how they can be made more sustainable.

Connecting to the SDGs

PRINCE helped Swedish policy-makers better understand the environmental pressures – within and beyond Sweden’s borders – that result from consumption in Sweden. It produced new indicators for greenhouse gas emissions (SDG 13: Climate action), but also for air pollutants, such as PM2.5, and hazardous chemicals with potentially grave health impacts (SDG 3: Good health and well-being).

PRINCE’s work on the implications of food consumption, in particular, highlighted its potential impacts on both life on land (SDG 15) and life below water (SDG 14).

SDG co-benefits



PRINCE: revealing the global impacts of Sweden’s consumption

SEI was a driving force in PRINCE – a project to help Swedish policy-makers understand, and address, the environmental and social impacts of Swedish consumption.

In today’s globalized economy what we consume is often linked with environmental and social impacts scattered around the world, out of our sight. SEI has been at the forefront of attempts to improve our understanding of the scale and nature of these impacts and how they link back to consumption. Much of this work has coalesced around the SEI Initiative on Producer to Consumer Sustainability.

A recent example is PRINCE. In 2018 the PRINCE project delivered a set of new consumption-based environmental macro-indicators to the Swedish Environmental Protection Agency (EPA), along with fresh insights into Sweden’s international consumption footprint that could inform a range of policy areas.



The Generational Goal

The main impetus behind PRINCE was the uniquely ambitious goal of Swedish environmental policy: to hand over to the next generation a society in which the major environmental problems have been solved, without exacerbating environmental and health problems outside Sweden’s borders.

The EPA and the Swedish Agency for Marine and Water Management (SwAM) tasked the consortium of European researchers behind PRINCE with developing indicators that would allow direct comparisons between consumption impacts inside and outside Sweden’s borders, crucial information for following up on the Generational Goal.

Innovative modelling

Central to most of the indicators developed by the project is a tailor-made model that tracks flows of commodities through the global economy. It then translates these flows into environmental pressures, based on knowledge of current practices and technologies in the different countries and world regions where goods and services consumed in Sweden are produced. These pressures are then allocated to 59 categories of goods and services consumed in Sweden and to different types of consumption: expenditure by private households, by the public sector, and in the form of capital investments.

This PRINCE model links high-quality Swedish statistics on industrial activity and environmental performance with a well-recognized multiregional input-output (MRIO) model, EXIOBASE3, which makes it possible to account for environmental pressures along the different stages of Sweden’s international supply chains. This simple, easily updated methodology could easily be replicated by other similar economies wishing to track their consumption impacts. SEI led a project within PRINCE that helped to identify the best modelling approach to use.

The new model revealed rich detail about a variety of environmental pressures from Swedish consumption and how they are distributed among 48 countries or regions and 59 categories of products consumed in Sweden. The results showed, for example, that around two-thirds of the greenhouse gas emissions due to Swedish consumption occur outside Sweden, and that food, private transport, and construction (of buildings and infrastructure) are the product groups most responsible.

Exploring new indicators

The PRINCE team also looked at how to measure different environmental pressures not covered by EXIOBASE or other consumption-based accounting. With the help of SEI expertise on chemicals management, PRINCE generated the world’s first

aggregate chemicals footprints: indicating the overall impacts of hazardous chemicals along Sweden’s supply chains. The results showed, for example, that 75–95% of the pesticide and veterinary antibiotic use in Sweden’s consumption footprint is associated with imported foods, mostly from Europe but also from South America.

Another case study led by SEI developed a new way of allocating emissions from maritime shipping to commodities, countries and companies – potentially breaking a logjam that has kept shipping emissions out of international climate deals.

Other SEI-led studies made major advances in the science of consumption-based accounting, for example on impacts of commercial sea fishing, on more responsive water footprinting, on linking consumption back to specific production regions.

From measurement to impact

The PRINCE model is now being used to generate Sweden’s official consumption-based greenhouse gas and carbon emissions statistics. According to the Swedish EPA, “The EPA and SwAM will work further with the results. The goal is to develop tools that Swedish authorities can use to track the environmental burden imposed by Swedish consumption.”

The detail the PRINCE model provides on how emissions are linked to different product groups, producer countries, and consumer groups in Sweden has enormous potential to inform policy in areas like trade, industry, agriculture and a range of government services. SEI is downscaling PRINCE data to strengthen its own footprinting tools for Sweden.

While PRINCE was focused on Sweden, many of its innovations could help other countries to measure and manage their consumption footprints. The PRINCE work has been presented in a number of academic conferences and forums, as well as to international statistical networks such as IAEG-SDGs, the UN group developing indicators for the Sustainable Development Goals.

The goal is to develop tools that Swedish authorities can use to track the environmental burden of Swedish consumption.

– Swedish Environmental Protection Agency

SDG 13

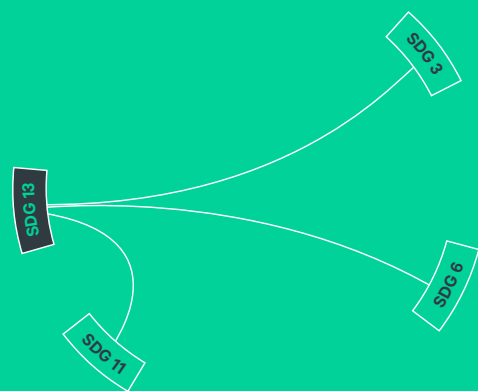
Climate action

SEI focuses on effective, equitable ways to mitigate and adapt to climate change for a safer climate for all. Adaptation to climate change is a key area of our research. In particular, we look at adaptation policy and finance under the UN Framework Convention on Climate Change, vulnerability assessments, capacity building and community-based adaptation.

Connecting to the SDGs

Ongoing work by SEI and partners in the City of Windhoek addresses the need for urban areas in Africa to create development plans that deal with the effects of climate change and rapid growth. The urbanization rate in Africa is the world's highest, and the fastest growth is taking place in informal neighbourhoods, where the lack of basic infrastructure creates difficult living conditions and increases vulnerability to disease. Work in Windhoek, and similar work in eight other African cities through the wider project, addresses the need to adapt to climate change (SDG 13: Climate action), and the need to make cities, safe, resilient and sustainable (SDG 11: Sustainable cities and communities). The work spans other related goals, including ensuring the availability and sustainability of clean water and adequate sanitation (SDG 6), and enhancing the health and well-being of people (SDG 3).

SDG co-benefits



Helping Windhoek plan for climate change

SEI's work with partners in the Namibian capital, Windhoek, underpins the development of the city's first integrated climate change strategy and action plan – and is a model for other African cities.

The rapidly growing city is grappling with the impacts of climate change: rising temperatures, falling dam levels, and erratic rainfall that has led to both droughts and flash floods. In Windhoek, and throughout urban Africa, the rural poor are flocking to informal settlements on the city's outskirts that lack basic services such as clean running water, sewage management, electricity, and waste disposal. People in these fast-growing, makeshift neighbourhoods are especially vulnerable to the impacts of climate change.

Urban poor particularly at risk

Windhoek has a long history of using innovation to adapt to harsh environmental conditions. Fifty years ago, Windhoek became the world's first city to produce drinking water directly from treated municipal wastewater, and the city recently began "banking" this recycled water in underground aquifers to reduce evaporation losses. Even so, until now Windhoek has not had a city plan for adapting to the impacts of climate change. Without action the city's people – especially the poor in informal settlements – will be at greater risk from climate impacts.

Co-producing knowledge for urban climate resilience

This situation is poised to change. For two years, Windhoek has participated in a project that brings together city decision-makers, community representatives, and climate and social science researchers to achieve three aims:

- to help decision-makers better understand climate science,
- to help climate scientists better understand the needs of decision-makers, and
- to help city authorities to design effective development policies underpinned by climate science.

This co-production process is a hallmark of the Future Resilience for African Cities and Lands (FRAC TAL) project,

part of the multi-consortia Future Climate for Africa programme of the UK's Department for International Development (DFID) and Natural Environment Research Council (NERC). SEI plays a key role in this nine-city project, which was featured in a 2018 *Nature* article as a prime example of science-policy collaboration.

One way the project fosters collaboration is through "learning labs", providing creative spaces to share ideas, explore complex concepts and understand different viewpoints (see photo below). Participants included elected senior officials, researchers, and representatives of city departments, youth organizations, and NGOs working in informal settlements.

Another key element of the project is an "embedded" researcher, whose presence in both the City of Windhoek and the University of Namibia, a project partner, links the city with academic research. A tailored, detailed assessment of strengths and gaps in institutional capacity will help the city's water department to carry out future climate action plans.

A strategy and action plan for Windhoek

The first city-level Climate Change Strategy and Action Plan is slated to be finalized in early 2019. The City of Windhoek is also making plans to establish a climate change steering committee with wide-ranging representation.

"We, as a city, are eager to move the FRAC TAL project forward," said James Kalundu, Manager of the Social and Youth Development Division for the City of Windhoek.

Following a session on "transformational leadership on climate change" conducted for Windhoek's mayor and councillors, the city committed to funding a similar session for its chief executive officer and strategic executives.

"I have seen a big change since the first learning lab," said Olavi Makuti, Environmental Specialist for the City of Windhoek. "Colleagues are now talking about climate issues. It has been amazing to see the transformation in them."

A model for urban Africa

Windhoek's work is already informing the approaches of other African cities. In August, representatives from Gaborone, Botswana, travelled to Windhoek to learn about how to take similar steps. Dr Lapologang Magole, Head of the Faculty of Architecture and Planning at the University of Botswana, said the cities' information exchange will help Gaborone execute a "smooth landing" in planning for climate change.

Guidance on adaptation planning in other settings is currently being developed, building on SEI research from the work in Windhoek.



I have seen a big change since the first learning lab. Colleagues are now talking about climate issues. It has been amazing to see the transformation in them.

– Olavi Makuti,
Environmental Specialist
for the City of Windhoek

SDG 13

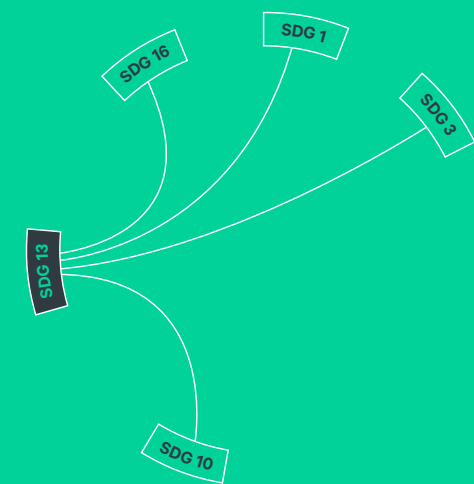
Climate action

To meet ambitious climate targets we must transform our energy systems, how we use natural resources, and how we produce and consume goods and food. We must also adapt to climate impacts. SEI focuses on effective, equitable ways to mitigate and adapt to climate change for a safer climate for all.

Connecting to the SDGs

Equity in climate action is not a moral or academic nicety, but a practical necessity in meeting the Paris climate goals. It also interacts with other SDGs than climate action, including no poverty (SDG 1), good health and wellbeing (SDG 3), reduced inequalities (SDG 10), and peace, justice and strong institutions (SDG 16).

SDG co-benefits



Driving the debate on climate equity

SEI built on its years of work on climate equity to enable civil society organizations to shape discussions at the 2018 UN climate change conference in Katowice.

In 2015, in the run-up to the UN climate change conference in Paris, SEI helped initiate the Civil Society Equity Review (CSR) – a coalition of more than 200 NGOs and other civil society groups committed to ensuring that countries take on their fair share in climate commitments. The CSR has produced a series of assessments of countries’ climate commitments that have been put on the table at the UN climate negotiations, and SEI has developed the assessment framework, provided technical analysis, and contributed much of the writing.

New focus on inequality and climate change

In Katowice SEI played a key role in leading the Civil Society Equity Review to focus attention on social inequality. In addition to its focus on climate equity and fair global cooperation, this year’s report also examined inequality within countries.

Extreme inequalities within countries are critically linked to the issue of climate change. The 2018 CSR report notes that “the widely differing capacities of countries are directly linked to real differences in human development outcomes such as infant mortality, malnutrition rates and life expectancy. Likewise, widely differing levels of national historical emissions are directly linked to differing levels of travel, fuel consumption, food consumption, access to electricity, and so on.”

Building a growing coalition

The 2018 report was supported and endorsed by the largest number of civil society organizations yet, with more than 200 organizations signing on. Among the largest were Oxfam, WWF, Christian Aid, Climate Action Network, Friends of the Earth, Action Aid, the ecumenical ACT Alliance network, Care, 350.org, Third World Network, and Jubilee South Asia Peoples’ Movement on Debt and Development.

The CSR coalition is bought together by a common belief that a robust and effective global response to the climate challenge will have to be widely seen as fair if it is to succeed. As the Intergovernmental Panel on Climate Change (IPCC) notes in its most recent assessment report, an agreement that is “seen as equitable can lead to more effective cooperation”. But, with the largely bottom-up regime codified in Paris, any effective process to ratchet up national-level ambition will require some means of reviewing the pledges on the bases of both science and equity.

Convening role

Given that in the coalition many groups hold important and legitimate differences of opinion on what exactly “fair” means, it was a major achievement to create a coalition that was able to converge on key issues, carry out analysis, assess countries climate commitments, campaign on common positions, and publish widely cited documents.

Through its convening role, SEI helped to catalyze cooperation and convergence between diverse groups in the coalition, generating dialogue between them and influencing the broader climate discourse.

SEI has pioneered engagement in climate equity for more than 15 years, first in the development of the

Greenhouse Development Rights approach and later through its Climate Equity Reference Project. Through academic publications, analytical work and online tools, this work has widely influenced how equitable effort-sharing can be usefully assessed.

And the process of building the CSR community has been underpinned by years of working with these civil society groups and building trust, by providing technical input, building capacity, informing strategy, and serving as technical experts in interactions with policy-makers.

Unless all face up to their fair share of the global effort, we are heading for a three degree world caused mostly by the rich suffered mostly by the poor.

– Tracy Carty, Climate Change Senior Policy Adviser, Oxfam – member of the CSR coalition



The SEI Foundation Annual Report

SEI Director's report

SEI Foundation
Stiftelsen
The Stockholm
Environment
Institute
802014-0763

Operations

SEI is an international and independent non-profit research institute established in 1989 by the Swedish Government. 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 and policy 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 SEI Foundation includes SEI HQ, SEI Asia, SEI Africa, SEI Latin America and the subsidiary SEI Oxford Office Ltd (registered in the UK under company No. 4404220, not consolidated). 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 in 2006 in Massachusetts with EIN 20-4659308 as a 501(c)(3) 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 2018

The annual core funding from the Swedish Government and the five-year agreement with Sida jointly provides the financial basis for our operations. These core resources, which constituted approximately 38% of the SEI Foundation's total turnover in 2018, have made it possible for SEI to maintain a high level of professionalism, accountability and effectiveness in all core functions of the institute as well as investing in strategic research areas where SEI can set the agenda. It also enables us

to adapt our programmes to respond to emerging challenges around the world.

In 2018, the government core support amounted to SEK 32 million, out of which SEK 9 million were dedicated to co-funding. Co-funding enables SEI to enter into research programmes that require matching funds, while at the same time strengthening the financial sustainability of the SEI centres.

The agreement with Sida supports our activities in developing countries via our centres and the SEI initiatives, and by enabling us to respond rapidly to requests from, for example, developing country governments that may not always have the means and resources to develop project-funding mechanisms for smaller interventions.

In March 2018, SEI launched a new centre in Bogotá, Colombia – SEI Latin America. The centre is regional in scope, focusing initially on the implementation of the 2030 Agenda, water resources and sanitation. SEI is grateful for the strong support in establishing the centre received from both the Colombian Government, including its embassy in Stockholm, and the Swedish Government.

The total revenue of the SEI Foundation in 2018 was SEK 221 million, with a net income of SEK 0.9 million.

In April 2018, Måns Nilsson was appointed as Executive Director. Following this appointment some internal governance reforms were made. The most important of these were the appointment of a new Research Director and Global Research Committee (GRC), and the creation of the new position of Head of Operations and Donor Relations. According to SEI's established procedures, the SEI Board met four times during 2018.

A new website (www.sei.org) and a new visual identity, including a new logotype, were launched on 19 March 2018.

SEI was ranked as one of the top two think tanks in the world working on environment policy in the index compiled annually by the University of Pennsylvania's Think Tanks and Civil Societies Program. It is the sixth year in a row that SEI has been ranked in the top two in that category.

The SEI strategy

Reaching the 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. The current SEI Strategy, which runs from 2015 to 2019, clusters SEI's strategic goals in seven areas. Our main results areas are:

- **Scientific research:** To enhance the quality and impact of our problem and solution driven scientific research.
- **Policy engagement:** To provide effective decision support and engage in key policy arenas.
- **Capacity development:** To strengthen the capacity of individuals, organizations and institutions to make decisions that promote sustainable development.

Enabling the delivery of results, focus areas are:

- **Communications:** To produce and share knowledge more effectively, in partnership with decision-makers.
- **Tools, platforms, and ICT:** To advance the technical development, accessibility, and application of our tools, platforms, and ICT environment.
- **Organization and finance:** To be a diverse, attractive, and financially robust organization where the best researchers and professionals can thrive.
- **Monitoring and learning:** To be a learning organization that – alongside our partners – continuously takes stock and learns from experience to deliver ever better results.

Under each area, a set of organizational goals is assessed annually through results reports, impact stories and a small set of KPIs (key performance indicators).

SEI has in 2018 contributed to reaching the objectives in five main ways:

- Through research initiatives and projects where specific areas, issues and questions were addressed.

- Through policy engagement and cooperation with Swedish and other government authorities (e.g. the Swedish Ministry of Environment and Energy, the Swedish Ministry for Foreign Affairs, Sida, the EU, UN agencies, and multilateral development organizations) as well as with a range of other institutions, agencies, and the private sector.
- Through increasing cooperation within the SEI global organization and strengthening research and policy capacity and competence.
- Through outreach, including publications (e.g. scientific and policy oriented), media presence, conferences, seminars and webinars, and social media.
- Through capacity development, including training and dedicated events (not least linked to SEI's tools) and within SEI initiatives and projects.

Throughout 2018 SEI continued to invest institutional resources in research, agenda setting and capacity development on key issues related to environment and development that we are particularly well placed to address, with a view to creating better conditions for sustainable development globally.

There are a number of impact stories in the second section of this Annual Report that provide concrete examples of SEI's work and achievements in 2018.

In 2018, further progress was made towards achieving the strategic goals related to strengthening scientific research at SEI by the end of the 2015–2019 strategy cycle. The scientific impact of SEI's work is showing a positive and sustained trend over time using an indicator of how widely cited SEI work is in others' publications (i.e. excluding self-citations). SEI strives towards having more SEI authors as first authors on high-impact papers. In 2018, the total number of citations passed 7500. SEI succeeded in substantially increasing by 10% the number of peer-reviewed scientific articles in line with the strategic goals.

In 2018, SEI increased the distribution of tools developed and supported by SEI, registering a large number of interactions with users. Using an index with 2015 as a baseline, the tools WEAP, LEAP, weADAPT and NETpositive have all seen increases in usage over the past four years.

SEI engages with its main target audiences (policy-makers, 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 increased by 95% from 2017 to 2018. Social media is increasingly important

for reaching SEI's target audiences. SEI's content strategy aims to increase engagement and reach on all social media channels. Followers of SEI Twitter accounts (@SEIresearch and @SEIclimate) increased by 13% from 2017 to 2018.

The 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 catalyse additional, external funding as well as further recruitments.

In May 2018 in Stockholm SEI organized its sixth annual SEI Science Forum. The Forum, which in the future will be hosted every second year in Stockholm and every second year by one of the SEI centres, provides an opportunity to build relationships between researchers from across the global organization, develop new ideas, strengthen our engagement with key partners and audiences, and carry out key planning and management meetings.

Key developments after the year's end

On 1 January 2019, SEI's new and enhanced internal environmental policy was put into place. The policy, which had been developed during 2018 in a wide-ranging consultative process, ramps up SEI's own ambition and commitment to monitor and reduce environmental impacts.

On 1 February 2019, SEI reintegrated its headquarters and the former Stockholm Centre. The aim of this organizational adjustment was to make the central organization flatter, more cost-effective and more agile in its decision-making processes.

Expected developments in 2019

The outlook for 2019 is continued financial stability, with consolidation at some centres and growth expected in others, in particular SEI Africa and SEI Latin America. The core support from the Swedish Government through Formas is at the same level as in 2018.

SEI will prepare a new strategy for the period 2020–2024. The new strategy will be the basis for discussions with core donors on continued core support from 2020 onwards.

Investments will be made in developing a new monitoring, evaluation and learning system, including a knowledge management system built within a new

intranet environment. SEI will also begin the process of defining and developing the next generation of its strategic initiatives.

Financial overview

Key figures for the SEI Foundation	2018	2017	2016	2015	2014
Total revenue (million SEK)	221.1	201.3	161.3	133.3	121.2
Net income (million SEK)	0.9	1.5	1.8	1.7	1.7
Total assets (million SEK)	117.7	103.8	106.7	83.5	64.4
Equity (million SEK)	20.7	19.8	18.3	16.5	14.8
Equity ratio (%)	18%	19%	17%	20%	23%
No. of staff at end of period	152	141	123	117	98

Environmental impact

SEI tackles complex environment and development challenges and does so using a highly collaborative approach. The nature of our work means that there will always be some requirement to travel, which comprises a major part of the institute's environmental impact.

To address this issue, SEI is taking certain steps to keep track of and reduce our impact. It is mandatory for all centres to monitor and report emissions from air travel. SEI is developing an internal reporting system across all centres that:

- enables 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 rapid assessment of trends in air travel emissions for internal management processes and external reporting.

All centres are required to submit an Environmental Action Plan on an annual basis to chart progress on environmental sustainability targets and set out their plans for the coming year.

Where appropriate, online meetings and remote participation at events will be prioritized as the primary mode of international collaboration and as a fundamental tool, not only to minimize our travel emissions, but also to extend our reach to our audiences.

The table below summarizes flight emissions from the SEI Foundation in the past four years.

Year	Emissions from travel (tonnes CO ₂ e)	Kilometres travelled	Travel emissions per employee (full-time equivalent)
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

While total CO₂ emissions increased by 4% from 2017 to 2018, from 561 tonnes to 583 tonnes, in relation to the total number of employees (full-time equivalent) emissions reduced by 11%.

Human resources

A number of recruitments were made during the year, including several strategic recruitments for management positions and recruitments to the new centre in Latin America.

A section on the SEI website has been created called Meet SEI. This is a space for a range of SEI employees to present themselves and their work with the aim of building SEI's brand externally to encourage quality recruitments.

The first induction programme was carried out at the global level for the Institute, with the participation of senior management, in order to enhance and secure the induction process.

A new mentorship programme was introduced during the year, in which all centres took part. The programme connects more senior employees with new and junior employees to offer insights and support professional and individual development.

The biennial global employee survey was carried out in September 2018, with a 91% response rate. The survey serves as a tool to continuously develop the organization. This year we went further in analysing the results from a gender perspective and delivered a targeted report on potential gender differences. The results have been discussed in all SEI centres and with the SEI Board.

During 2018 new indicators were developed to follow up on centre plans related to SEI's Equity, Gender and Diversity policy. An HR Network was established to enhance human resources collaboration across the global organization.

HR carried out workshops and training sessions for managers and employees, in particular on competence, and on the results of the employee survey.

The SEI recruitment system (already in place in Stockholm, Bangkok and Tallinn) was rolled out for SEI York, Oxford, Latin America and Africa.

Significant risks and uncertainties

One risk for SEI's sustainability is dependence on Swedish funding, while at the same time it is clear that the increased collaboration with the Swedish Government is also a strength. SEI uses the core

funding to leverage additional external funding. This is clearly articulated as a goal, not least for the SEI initiatives.

The potential negative impacts of Brexit are being closely monitored, in particular the risk that SEI centres based in the UK may not be eligible to participate in projects funded by the European Commission.

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

SEI implements research and engagement projects with partners around the world, which involves exposure to risks related to project management and delivery. Such risks around project performance are regularly addressed through appropriate risk management and quality assurance procedures in project planning and implementation. Continuous improvements and investments in competence development are made to minimize this risk over time, including implementing a common SEI project model, and training in project management.

Appropriation of results

Appropriation of accumulated results (amounts in SEK)

The equity of the SEI Foundation at the beginning of 2018	19 820 277
Net income for the year 2018	905 143
Final balance	20 725 420

Financial statements

Income statement

Amounts in SEK	Note	2018	2017
Government grant		32 000 000	32 000 000
External project funding	2	188 577 100	168 361 233
Sundry income	3	517 450	940 800
Total revenues		221 094 549	201 302 034
Personnel costs	4	-97 842 420	-83 260 251
Travel costs in operations		-851 373	-1 501 825
External costs in projects	5	-102 309 385	-96 822 874
Other costs	5, 6	-17 321 268	-16 567 629
Depreciation	7	-1 155 228	-1 298 034
Operating income		1 614 875	1 851 421
Result from financial investments			
Interest income and similar profit items	8	2 541 686	391 811
Interest expense and similar loss items	8	-2 864 094	-274 381
Income before tax		1 292 466	1 968 850
Tax on the result for the year	9	-387 324	-424 641
Net income		905 143	1 544 209

Balance sheet

	Note	2018	2017
Assets			
Fixed assets			
Intangible fixed assets		1 195 542	646 469
Tangible fixed assets		2 012 431	1 898 450
	7	3 207 973	2 544 919
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		4 459 412	3 796 358
Current assets			
Current receivables			
Accounts receivable, customers		5 935 285	4 308 556
Other receivables	12	2 383 984	2 921 663
Prepaid expenses and accrued income	13	6 342 820	6 643 510
		14 662 090	13 873 729
Cash and bank balances		98 536 727	86 098 698
Total current assets		113 198 817	99 972 427
TOTAL ASSETS		117 658 229	103 768 785
Equity and liabilities			
Equity			
Balance brought forward		19 820 277	18 276 067
Net income for the year		905 143	1 544 209
		20 725 420	19 820 277
Current liabilities			
Advance payments for work in progress	14	68 387 051	51 997 983
Accounts payable, suppliers		11 143 807	6 745 674
Liabilities, SEI centres/affiliated companies abroad	15	4 858 240	8 271 024
Other liabilities		3 666 114	7 475 628
Accrued expenses and deferred income	16	8 877 597	9 458 199
		96 932 809	83 948 508
TOTAL EQUITY AND LIABILITIES		117 658 229	103 768 785

Cash flow statement

	Note	2018	2017
Net income from operations		905 143	1 544 209
Non-cash items (depreciation)	7	1 155 228	1 298 034
Net cash generated (used) in operating activities before changes in operating assets & liabilities		2 060 371	2 842 243
Increase (-) / decrease (+) in short-term receivables		-788 361	-5 376 923
Increase (+) / decrease (-) in short-term liabilities		12 984 301	-4 464 369
Cash flow before investments		14 256 311	-6 999 049
Investing activities			
Deposited as collateral with the landlord	11	-	-
Capital expenditures (acquisition of equipment)	7	-1 818 283	-2 095 843
Proceeds from the sale of equipment		-	-
Net cash provided by investing activities		-1 818 283	-2 095 843
Net cash flow after investing & financing activities		12 438 028	-9 094 892
Cash at beginning of year		86 098 698	95 193 590
CASH AT END OF YEAR		98 536 727	86 098 698

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 22%.

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 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:	2018	%	2017
Swedish International Development Cooperation Agency (Sida)	72 904 793	38.66%	57 563 132
The Swedish Foundation for Strategic Environmental Research (Mistra)	21 706 609	11.51%	24 096 931
The Swedish Research Council Formas	13 210 069	7.01%	13 552 416
European Commission	10 086 661	5.35%	7 990 410
Bill and Melinda Gates Foundation	6 609 902	3.51%	9 810 576
Gordon and Betty Moore Foundation	5 418 737	2.87%	5 199 717
Global Environment Facility (GEF) via World Wide Fund for Nature (WWF)	5 326 458	2.82%	2 099 319
United Nations	4 862 980	2.58%	1 813 699
CCAC via UNEP	4 400 646	2.33%	4 692 962
The Swedish Ministry of the Environment and Energy	4 256 064	2.26%	1 000 000
The Swedish Ministry of Foreign Affairs	3 477 376	1.84%	564 410
The Swedish Environmental Protection Agency	3 111 233	1.65%	3 093 219
The Swedish Energy Agency	2 066 461	1.10%	3 061 806

External project funding received from the following sources:	2018	%	2017
Department for International Development (DFID) via WYG International Ltd	2 050 401	1.09%	2 565 179
Gordon and Betty Moore Foundation via The Nature Conservancy	1 767 608	0.94%	1 485 847
Critical Ecosystem Partnership Fund (CEPF)	1 728 091	0.92%	466 741
Department for International Development (DFID) via University of Oxford	1 693 119	0.90%	485 349
Sida via The Swedish University of Agricultural Sciences	1 647 668	0.87%	1 209 758
USAID	1 322 055	0.70%	638 684
Marianne and Marcus Wallenberg Foundation	1 149 166	0.61%	794 443
USAID via Asian Disaster Preparedness Centre (ADPC)	1 149 006	0.61%	1 100 492
European Commission via Global Canopy	1 098 970	0.58%	–
Vinnova (Sweden's innovation agency) via Svemin	736 388	0.39%	–
The Swedish Foundation for Strategic Environmental Research (Mistra) via Stockholm School of Economics	682 819	0.36%	–
Hugo Carlssons stiftelse via Jernkontoret	668 769	0.35%	1 242 222
The Swedish Research Council (Vetenskapsrådet)	665 987	0.35%	857 995
World Bank Group	620 912	0.33%	851 407
The Swedish Environmental Protection Agency via SCB	620 381	0.33%	1 086 726
SNV Netherlands Development Organisation	577 901	0.31%	628 541
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	561 516	0.30%	1 611 846
GCRF via University of York	521 876	0.28%	–
The Swedish Civil Contingencies Agency (MSB) via Swedish Meteorological and Hydrological Institute (SMHI)	516 812	0.27%	300 710
European Environment Agency	495 800	0.26%	319 530
The Swedish Energy Agency via HYBRIT Development AB	491 305	0.26%	126 875
NordForsk via KTH Royal Institute of Technology	480 660	0.25%	535 465
Global Centre of Excellence on Climate Adaptation	448 564	0.24%	–
Sida via Food and Agriculture Organization of the United Nations	434 387	0.23%	–
World Wide Fund for Nature (WWF)	419 015	0.22%	471 420
Centre for Development Research	397 151	0.21%	–
The Swedish Research Council Formas via Stockholm Resilience Center	385 786	0.20%	–
Vinnova (Sweden's innovation agency)	371 255	0.20%	1 778 745
ClimDev via ATPS Network	371 212	0.20%	–
Sida via Asian Disaster Preparedness Centre (ADPC)	352 217	0.19%	–
McKinsey & Company, Inc.	332 865	0.18%	122 901
The Conservation of Arctic Flora and Fauna (CAFF)	307 043	0.16%	–
Red Cross Red Crescent Climate Centre	283 960	0.15%	–
Fonerwa via Albertine Rift Conservation Society (Arcos)	278 946	0.15%	694 262
Blue Moon Fund	276 489	0.15%	937 716
Umeå Municipality	274 401	0.15%	–
Department for International Development (DFID) via Global Canopy	257 633	0.14%	–
The Swedish Red Cross	253 810	0.13%	–

External project funding received from the following sources:	2018	%	2017
The Swedish Meteorological and Hydrological Institute (SMHI)	231 880	0.12%	217 819
Institute For Global Environmental Strategies (IGES)	222 204	0.12%	138 529
International Union for Conservation of Nature (IUCN)	219 375	0.12%	229 790
Network of African Science Academies	219 189	0.12%	–
MRC / AHRC Global Public Health	207 954	0.11%	–
IBF International Consulting SA	197 378	0.10%	–
European Commission via Ecofys Netherlands b.v.	183 470	0.10%	–
Lancang-Mekong Cooperation (LMC) Special Fund via Mekong Institute	178 898	0.09%	–
Government of Nepal via Lahmeyer International GmbH	173 587	0.09%	–
Embassy of Sweden in Bangkok	167 441	0.09%	–
Sida via The Swedish Patent and Registration Office	139 545	0.07%	52 692
Asian Disaster Preparedness Centre (ADPC)	124 275	0.07%	–
Center for International Climate and Environmental Research-Oslo (CICERO)	121 643	0.06%	174 525
The Swedish Research Council (Vetenskapsrådet) via Lunds Universitet	120 098	0.06%	–
Gaia Values Foundation via Stockholm Green Digital Finance	105 000	0.06%	–
CLUA via Global Canopy	104 734	0.06%	–
U.S. Department of Energy	103 497	0.05%	246 782
Institute for Governance and Sustainable Development (IGSD)	99 516	0.05%	–
Sida via Future Pioneers for Empowering Communities Members	98 181	0.05%	–
Vinnova (Sweden's innovation agency) via Jernkontoret	94 293	0.05%	–
PLAN International Inc.	92 261	0.05%	–
Simon Fraser University	91 369	0.05%	–
Sida via International Union for Conservation of Nature (IUCN)	91 027	0.05%	–
Nordic Council of Ministers via The Finnish Environment Institute (SYKE)	86 428	0.05%	599 022
The Swedish Foundation for Strategic Environmental Research (Mistra) via Umeå University	86 130	0.05%	–
The University of Sydney	85 096	0.05%	–
Korea Environment Institute (KEI)	68 071	0.04%	–
Ministry of Infrastructure and Water Management, The Netherlands	67 688	0.04%	–
The Swedish University of Agricultural Sciences	59 590	0.03%	–
Other	607 354	0.32%	11 850 624
Total	188 577 100	100.00%	168 361 233

Note 3 Sundry income

	2018	2017
Reimbursement of travel & other expenses	171 736	236 618
Miscellaneous	345 713	704 182
Total	517 450	940 800

Note 4 Employees and personnel expenses

Average number of employees (FTE)	2018	2017
Sweden	84	76
(of which men)	45%	51%
Thailand	32	26
(of which men)	47%	45%
Kenya	12	10
(of which men)	38%	36%
Colombia	6	–
(of which men)	45%	–
Total	133	113
(of which men)	45%	50%

Board of Directors and Management

	2018	2017
Board of Directors, number of members	6	7
(of which men)	50%	43%
Global Management Committee, number of members	15	14
(of which men)	53%	57%

Salaries, other remunerations and social fees

	2018	2017
To the board members and Executive Director	1 245 500	1 213 965
To other employees	69 986 667	58 049 407
Total	71 232 167	59 263 372
Social fees	27 275 259	23 876 358
(of which pension costs)	(8 250 733)	(7 569 086)
SEK 586 122 (previous year 325 652) of the pension costs relate to the Executive Director		

Salaries and other remunerations by country

	2018	2017
Sweden	49 703 728	42 009 569
Thailand	14 635 922	12 420 754
Kenya	5 433 950	4 833 049
Colombia	1 458 567	–
Total	71 232 167	59 263 372

Terminal Benefit

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

Note 5 Audit fees

	2018	2017
Audit fee Mazars SET	199 225	170 335
Consultant's fee project audits (Mazars SET & others)	89 957	169 288
Total	289 182	339 623

Note 6 Leasing agreements

Leasing costs	2018	2017
Office premises Stockholm	4 863 740	4 883 706
Office premises Bangkok	694 603	555 763
Office premises Nairobi	448 757	399 331
Office premises Bogotá	228 663	–
Copy machines	58 849	67 197
Total	6 294 612	5 905 997

Additional information on leasing agreementsOffice premises Stockholm

New 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 2018-12-31 contracted nominal future payments are SEK 14 075 022 excl. VAT and index adjustment.

Office premises Bangkok

New rent from April 2019 is THB 450/month/sqm for a total space of 817.79 sqm. The agreement is valid until 31 March 2024. At 2018-12-31 contracted nominal future payments are THB 22 635 090 (= SEK 6 249 548).

Office premises Nairobi

Rent is USD 31/month/sqm for a total space of 132.13 sqm. The agreement is valid until 30 June 2023. At 2018-12-31 contracted nominal future payments are USD 221 186 (= SEK 1 984 256).

Office premises Bogotá

Rent is COP 49 753/month/sqm for a total space of 145 sqm. The agreement is valid until 30 November 2022. At 2018-12-31 contracted nominal future payments are COP 339 063 640 (= SEK 932 425) excl. index adjustments.

Copy machines

The agreement is SEK 3930 per month excl. VAT. The agreement is valid until November 2020. At 2018-12-31 contracted nominal future payments are SEK 90 390 excl. VAT.

Note 7 Fixed assets

	2018	2017
Gross value		
Opening balance	11 270 867	9 175 025
Acquisitions	1 762 763	2 095 843
Sale	-	-
Discarded	-	-
	13 033 630	11 270 867
Accumulated depreciation		
Opening balance	-8 725 948	-7 427 914
Sale	-	-
Adjustment	55 520	-
Depreciation charged	-1 155 228	-1 298 034
	-9 825 657	-8 725 948
Net book value	3 207 973	2 544 919

Note 8 Result from financial investments

	2018	2017
Interest revenue and expense		
Interest revenue	47 403	105 596
Interest expense	-5 915	-4 810
	41 488	100 786
Exchange rate gains and losses		
Exchange rate gains on balance items	2 494 283	286 215
Exchange rate losses on balance items	-2 858 179	-269 572
	-363 897	16 643

Note 9 Tax

	2018	2017
Current tax	-387 324	-424 641
Deferred tax	-	-
Total	-387 324	-424 641
Theoretical tax		
Income before tax	1 292 466	1 968 849
Tax at current tax rate 22%	-284 343	-433 147
Reconciliation of effective tax		
Effect of non-deductible expenses	-102 981	-161 231
Effect of tax-exempt income	-	-
Utilisation of tax value of loss carryforwards not previously recognized	-	169 737
Adjustment for taxes pertaining to previous years	-	-
Total	-387 324	-424 641

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 Other receivables

	2018	2017
Preliminary tax paid	1 487 966	1 979 600
Other receivables	896 018	942 063
Total	2 383 984	2 921 663

Note 13 Prepaid expenses and accrued income

	2018	2017
Prepaid rent	1 416 708	1 204 551
Advance payments to project partners	3 932 530	4 243 562
Other prepayments	993 583	1 195 397
Total	6 342 820	6 643 510

Note 14 Advance payments for work in progress

	2018	2017
Work in progress, costs incurred	-646 343 303	-438 060 581
Accrued interest revenue on advances (specified per project)	44 295	44 295
Deductible: advance payments	714 686 059	490 014 269
Total	68 387 051	51 997 983

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 991 211 which is part of the Government core grant earmarked

for co-funding (SEK 5 million in 2013, SEK 7 million in 2014, SEK 7 million in 2015, SEK 8 million in 2016, SEK 9 million in 2017, and SEK 9 million in 2018) and allocated to projects but not yet fully utilized according to the principles of accrual.

Note 15 Liabilities SEI centres/affiliated companies abroad

	2018	2017
SEI Tallinn	626 774	151 594
SEI US	3 125 603	4 667 304
SEI Oxford	1 105 862	3 452 126
Total	4 858 240	8 271 024

Note 16 Accrued expenses and deferred income

	2018	2017
Accrued holiday pay	3 425 514	2 627 762
Accrued salaries and social charges	3 934 982	3 833 712
Sundry accruals	1 517 101	2 996 725
Total	8 877 597	9 458 199

Note 17 Pledged assets and contingent liabilities

	2018	2017
Pledged assets		
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.

Andreas Carlgren
Vice-Chair

Astrid Söderbergh Widding

Kerstin Niblaeus
Chair

Ingrid Petersson

Our audit report was submitted 2019 03-27

Håkan Sten
Authorised Public Accountant

Fredrik Gunnarsson
The Swedish Research Council (Vetenskapsrådet)

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 2018. The annual accounts of the foundation are included in the printed version of this document on pages 40-60.

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 2018 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 1-39. 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 2018.

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 27/3 2019


Håkan Sten
Authorized Public Accountant


Fredrik Gunnarsson
Lay Auditor

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