Stockholm Environment Institute

An agenda of action

Annual report 2017

Making a local impact with the Sustainable Development Goals

SEI Oxford – SDG 13
Climate Action

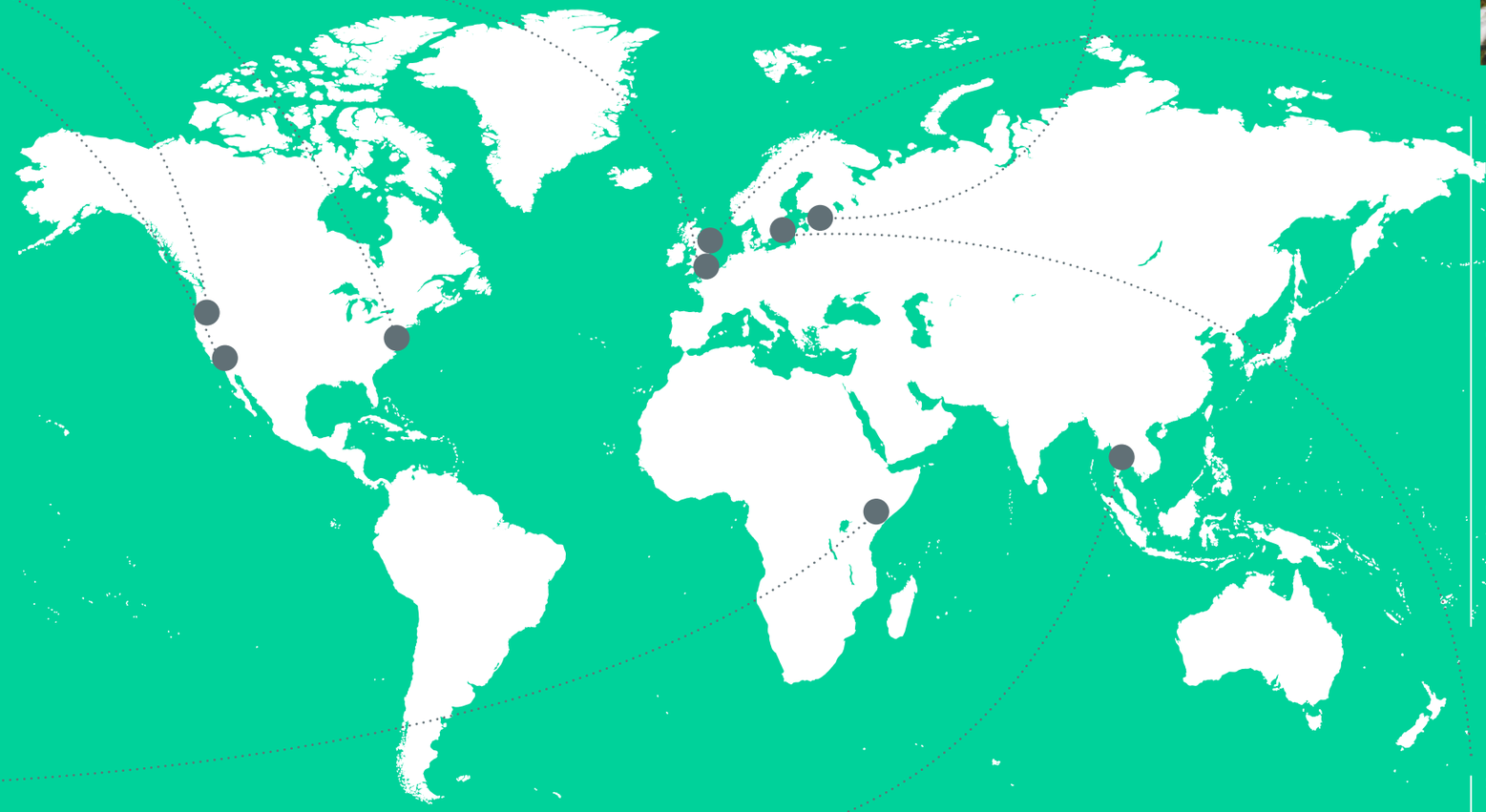
Created a decade ago, weADAPT has become a global virtual commons on the subject of climate change adaptation research and practice. Its platform provides access to credible, high-quality information to more than 100 000 people every year, from researchers to policy planners, private-sector representatives to NGO workers.

SEI Tallinn – SDG 14
Life below Water

Our oceans are filling with plastic. In the BLASTIC project, SEI has been working out how plastic gets into the Baltic Sea, how much is already there, and what policy-makers and individuals can do to reduce marine plastic litter.

SEI US – SDG 6
Clean Water and Sanitation

Two of California's largest rivers meet in the Sacramento–San Joaquin Delta, which provides water to 25 million people and 1.2 million hectares of farmland. With the help of an SEI model, policy-makers have come up with recommendations for increasing stream flows that mimic natural variations and thus benefit aquatic species, but still allow cities and farms to meet their water needs.



SEI York – SDG 15
Life on Land

Peatlands provide globally important ecosystem services, including climate regulation, water provision and biodiversity conservation. Over a quarter of the UK land area is covered by uplands, the bulk of which is a rare peatland habitat. For more than five years, SEI has been gathering evidence on managing peatlands to improve ecosystems services. Last year, that evidence was presented at a policy debate in the House of Commons.

SEI Africa – SDG 17
Partnerships for the Goals

Kenyan parliamentarians – representing four committees in the National Assembly and four committees in the Senate – committed to deeper engagement between policy and science at a first-of-its-kind event on the 2030 Agenda for Sustainable Development, co-hosted by SEI in June 2018. "When science and policy unite, the chances of success increase greatly, as science provides compelling evidence of the outcomes of interventions," said National Assembly Speaker, Justin Muturi.

SEI Asia – SDG 5
Gender Equality

The Sustainable Development Goals require countries to develop gender indicators and baseline data to monitor progress. SEI is collaborating with national governments and women's organisations in Vietnam and Cambodia to build the capacity of women to use Geographical Information Systems to pinpoint gender inequalities, and make environmental decision-makers aware that gender matters.

SEI Stockholm – SDG 12
Responsible Consumption and Production

In 2017, together with WWF Sweden, we turned our research on sustainable consumption into an easy-to-use, mobile-friendly game. So far, www.klimatkalkylatorn.se has enabled over 100 000 Swedes to calculate their emissions and get tailored tips on how to live more sustainably.

Last year, SEI enabled effective and ambitious action on the Sustainable Development Goals by international, national and business decision-makers.

SEI in review

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

From Goals to action

SEI supports multilateral organisations, national governments and industry in translating the 2030 Agenda from wide-ranging, idealistic ambitions into achievable, actionable policies.

SEI Foundation Annual Report

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

Leadership perspective

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

A year of contrasts

Barely halfway into 2017, President Donald Trump announced that the US would begin the process to leave the 2015 Paris Climate Agreement. Would this be a tipping point for the Agreement, sealed less than two years earlier? In a sense, it was. But not one that has caused the Agreement to fall apart. Not one country has followed the US example, and the mobilisation for climate action by companies, states and cities has been remarkable.

This example reflects 2017 in a nutshell. On the one hand, there are powers in motion, opposing international collaboration, open and inclusive societies, science- and evidence-based decision-making. On the other hand, many other actors are stepping up, supporting the implementation of the Paris Agreement and the 2030 Agenda.

From aspiration to action

Our Annual Report shows how SEI is stepping up to the challenge of delivering sustainability. Despite the momentum generated by the agreement in Paris and by the SDGs, there is still a long way to go. Over 3 billion people live on less than USD 2.50 a day, while poverty is increasing in 30 countries.

The stories we present here provide evidence of how SEI's research is connecting science and decision-making, and improving the lives of people and communities.

Sustainable Development Goals

SEI has supported the development of the 2030 Agenda ever since the Rio+20 conference in 2012. Our work is now focused on supporting implementation by:

- Developing innovative methods and tools to support coherent and effective implementation
- Providing informal spaces for government and civil society actors to learn, share knowledge and build capacity
- Advising industry on the main touchpoints between their business and the SDGs and how they can optimise strategies and processes for greater sustainability.

With more than 150 projects, SEI covers a wide range of topics relevant for the global transition to a low-carbon, resource efficient and inclusive society envisioned by the SDGs. In rural Cambodia, SEI is working with the World Vegetable Center on a project that explores how to promote gender equality and tackle malnutrition. In Tanzania, SEI researchers are finding out how off-grid solar-generated electricity is changing the lives of the residents of Kalenge. These are just two examples of how our research is produced in collaboration and maps out the many different dimensions involved in successful local development efforts.

Climate services, water resource management, productive sanitation, disaster risk reduction and development, climate finance and gender and social equity are other examples of focus areas for SEI in its initiatives, programmes and projects.

For the fifth year in a row SEI has been ranked among the top two think tanks in the world working on environment policy.

Enabling action, unlocking delivery

In 2017 we found new ways to move our research from the academic literature to formats and services that make scientific insights applicable to policy. In conjunction with the COP23 climate summit in November, the German Development Institute and SEI launched a visual tool, the NDC-SDG Connections Tool, that shows how climate action corresponds and contributes to each of the 17 SDGs.

In the field of health, SEI's Integrated Benefits Calculator was presented at the UN Environment Assembly. This decision-support tool translates emission scenarios into impacts, such as avoided premature deaths and crop losses. For example, policy-makers can see how many lives would be saved through an emissions reduction policy – and view that impact by age, disease and contributing pollutant.

In a different area, the Trase tool is now recognised by decision-makers in both the public and private sector as a "game changer" in supply chain transparency. Throughout 2017, Trase has seen rapid uptake by decision-makers, including to support specific decision-making around purchases of sustainable commodities and management of risk in both production and consumption economies.

A new year, two new centres of excellence

The year ended with the launch of the Stockholm Sustainable Finance Centre. This is a collaboration between SEI and the Stockholm School of Economics, with core funding from the Swedish Government for the first three years. The Centre will carry out research into the risks and opportunities of sustainable finance, developing an evidence base for financial institutions and policy-makers to maximise returns for investors and for sustainable development. It will work closely with financial stakeholders to identify solutions that shift capital allocation to support the transition to sustainable societies, particularly in developing countries. It aims to build capacity in sustainable finance in the current and next generation of finance professionals.

SEI continues to grow: by the end of 2017, we were more than 230 colleagues working from 9 offices across 6 countries. The diversity of SEI is a real strength – multinational, multidisciplinary, never losing sight of the big picture – as the sustainability agenda continues to broaden both in terms of substance and complexity. And in 2018 SEI is setting up a new regional centre for Latin America, based in Bogotá, Colombia.

Let us end by extending our warm thanks to our partners and funders. Without you, SEI could not bridge science and policy, would not be able to develop the evidence and tools for sustainable policy-making. We also wish to thank all our fantastic SEI colleagues for the work they do: this organisation is its people.

Kerstin Niblaeus
Chair of the Board

Måns Nilsson
SEI Executive Director

A sustainable future for all

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

We connect science and decision-making to develop solutions for a sustainable future for all.

Our work spans climate, water, air, and land-use issues, and integrates evidence and perspectives on governance, the economy, gender and human health.

SEI's approach is highly collaborative: stakeholder involvement is at the heart of our efforts to build capacity, strengthen institutions and equip partners for the long term.

We make sure our knowledge and findings are clearly communicated and accessible to decision-makers and civil society. We publish our own open access material, and in leading academic journals, and repackage our research to offer effective decision support.

To promote debate and share knowledge we convene decision-makers, academics and practitioners, and engage with policy processes, development action and business practice throughout the world.

We are committed to transparency and believe that full disclosure of our finances and funding builds trust in our work. The Swedish International Development Cooperation Agency (Sida) is our largest single donor, but we also receive broad support from other development agencies, governments, NGOs, universities, businesses and financial institutions.

SEI is:
International – SEI has offices in five continents around the world, and works locally, regionally and globally.
Trusted – decision-makers and the academic community recognise us as an independent and non-partisan institute.
Credible – our research is objective, and supported by rigorous peer review.
Relevant – only joined-up research can solve joined-up problems: our work makes connections across the natural, physical, and social sciences, allowing us to take new angles on key issues and offer robust, insightful policy advice.

By 2018 SEI will have eight centres around the world in Sweden, the UK, the US, Thailand, Kenya, Estonia and Colombia.

Our mission
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.

Our values
SEI is international, trusted, credible and relevant.

Our vision
A sustainable, prosperous future for all.

The history of SEI

1989

SEI is formed

SEI is established in 1989 as a response to concerns over the environment and the growing need to assess both environmental impact and sustainable technologies. From its inception, SEI has an international presence, with researchers based in Sweden, the UK and US.

1990

Setting climate targets

At what point is climate change dangerous? In 1990, no one is really sure. So a team of researchers from SEI tries to find answers. Their report, 'Targets and Indicators of Climate Change', is the first to analyse how to measure efforts to tackle climate change. Based on current scientific understanding, the report proposes a "maximum increase of **two degrees** above pre-industrial global mean temperature". Nevertheless, SEI researchers warn that there is nothing necessarily "safe" about a two-degree limit.

1992

Health effects of burning wood and charcoal

In 1992, SEI publishes a study on the number of women worldwide that are exposed to biomass fuel pollution in the form of smoke and gases. In Lusaka, 788 women were interviewed about their living situation and symptoms of ill-health. The study found that wood users were exposed to significantly higher concentrations of smoke than charcoal users, and charcoal users to higher levels than electricity users. In spite of this, there was no difference in the number of symptoms reported between the groups.

SEI Tallinn Centre established

SEI's Tallinn Centre is established in 1992, with the agreement of the Swedish and Estonian governments, as the fourth SEI centre after Stockholm, York and Boston. Among its first studies, the Centre contributes to an analysis of likely environmental implications of EU membership for the Baltic States.

1993

Energy planning: the LEAP tool

In 1993, SEI takes the first steps in creating what was to become an important tool for environment and energy planning. SEI's Long-range Energy Alternatives Planning tool, LEAP, supports energy policy analysis and climate change mitigation assessment. In 2018 LEAP has thousands of users in more than 190 countries.

1997

PoleStar: charting a course to a sustainable future

Named for the star that guided voyagers through uncharted waters, the PoleStar Project explores alternative futures. The Tellus Institute and SEI's US Centre develop PoleStar as a tool for policy-makers to explore interactions between environment and development. In 1997 UNEP publishes its first Global Environment Outlook, the UN's global environment assessment, prepared using SEI's PoleStar model. Designing PoleStar has helped SEI lead the development of evidence-based assessment models.

1999

Ecological footprints

A first of its kind in the UK, SEI research describes the total material consumption of the City of York and works out the associated ecological footprint. The report helps the City of York Council formulate local environmental strategies, and several years later these methodologies are adopted to report consumption-based greenhouse gas emissions in the UK's national climate accounts.

WEAP: Water Evaluation And Planning system

In 1999 SEI publishes the methodology that will become one of the leading tools for water planning: the Water Evaluation And Planning (WEAP) system. By 2018 WEAP is used in **170 countries around the world** to model water demand – and its main drivers – and water supply, simulating real-world policies, priorities and preferences. It is used on a daily basis to evaluate the impact of a wide range of potential water management measures, from conservation to wastewater reuse, and to plan for adaptation to climate change.

2002

Saving the ozone layer

The ozone layer in the stratosphere keeps more than 95% of the sun's ultraviolet radiation from striking the earth. In 2002 SEI supports the implementation of the Montreal Protocol by building capacity in developing countries for the sustainable and cost-efficient phase-out of ozone depleting substances. In this year, SEI researcher Ingrid Kökeritz receives the US Environmental Protection Agency Stratospheric Ozone Protection Award. She is one of 11 individuals and organisations internationally to receive this honour in recognition of exemplary efforts to protect the ozone layer.

Megacity floods

SEI publishes a report about hazards for large coastal cities, 'The Resilience of Coastal Megacities to Weather-related Hazards'. This is the latest report in SEI's work on climate change and flooding, which started in 1990 with a study on the costs of adapting to sea level rise in the San Francisco Bay.

The Nobel Peace Prize

In 2007 the IPCC, including three SEI researchers, together with Al Gore, is awarded the Nobel Peace Prize. The prize recognises the united efforts of more than 2 000 leading climate scientists, enabling policy-makers worldwide to make informed decisions and develop effective strategies to reduce greenhouse gas emissions and respond to global warming.

Planetary boundaries

Researchers from SEI and the Stockholm Resilience Centre propose nine planetary boundaries that define the "safe operating space" for humanity. Planetary boundaries becomes an important concept in the science and policy of sustainability: In 2012 the then-UN Secretary General, Ban Ki-moon, called on the world "to eradicate poverty and reduce inequality, to make growth inclusive and production and consumption more sustainable, while combating climate change and respecting a range of other planetary boundaries."

2003

2004

2007

2008

2009

Asia Centre

SEI Asia opens in Bangkok. 10 months later a huge Tsunami devastates the region. In its aftermath, SEI works in Indonesia, Sri Lanka and Thailand helping vulnerable local communities to develop early warning systems and to recover sustainably. SEI Asia also helps develop specific recommendations for the tourism sector, making the impact of future natural disasters less severe. Since then, SEI Asia has been working on key sustainable development issues such as energy, water resources, atmospheric pollution, sustainable livelihoods and climate change.

SEI launches Africa Centre

SEI's Africa Centre, based in Nairobi, works closely with African organisations and networks on environment and development. This strengthens SEI's research across the continent and complements existing research in Asia, Europe and North America. "We aim to provide close practical support to help policy-makers meet the challenges of environment and development, including achieving **the Sustainable Development Goals**," says Cassilde Muhoza from the Africa Centre.

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– Cassilde Muhoza, Research Associate, SEI

Connecting air pollution with climate change

SEI coordinates the new United Nations Environment Programme/World Meteorological Organization Assessment on reducing the impact of black carbon and tropospheric ozone. The study commissioned by the United Nations, in consultation with international partners, provides science-based advice on ways to reduce the impacts of these pollutants, which adversely affect public health, crop yields and contribute to climate change.

IPCC 5th Assessment Report

The Intergovernmental Panel on Climate Change releases its 5th Assessment Report; among the hundreds of scientific contributors are four lead authors from SEI.

2030 Agenda

The **2030 Agenda** marks a sea change in how the international community approaches common challenges. It voices the clear recognition by all UN member states – rich and poor, developed and developing – that we need to effect a transformation in the way we interact with our planet and with each other, in the next 15 years. And crucially, it demands change from the rich, developed countries: not just in how they give, but in how they live. SEI has supported the development of Agenda 2030 ever since the Rio+20 conference in 2012.

2011

2012

2013

2014

2015

2016

Ocean ecosystems and livelihoods on the brink

A new study coordinated by SEI shows climate change alone could reduce **the economic value of key ocean services by up to USD 2 trillion a year by 2100**, and urges world leaders to make the oceans a priority in global sustainability goals. The study, 'Valuing the Ocean', is the work of an international, multi-disciplinary team of experts, including SEI researchers.

$2 trillion

New climate economy

In 2014, a major new report, co-authored by SEI, shows that today's fast-changing economy offers many opportunities to improve economic growth and reduce carbon emissions at the same time. The report is the product of an intensive year of research, analysis and consultations, reviewed by an expert team of world-leading economists chaired by Lord Nicholas Stern, and formally unveiled at a global launch event at UN headquarters in New York, attended by UN Secretary General Ban Ki-moon and government, business and finance leaders.

A resilient Arctic

Published in November 2016 our groundbreaking 'Arctic Resilience Report' is the culmination of a five-year scientific research project by SEI in Sweden and the US, with the Arctic Council and an international team of researchers, including 11 organisations and 6 universities. As well as innovative and rigorous research, the report uses direct case-study evidence to add substantial new insights about ground-level changes in the region's social-ecological systems.

SEI in 2017

Highlights from a year of engagement and partnership

Exploring climate commitments

A new interactive tool shows how countries address different mitigation, adaptation and finance priorities in their nationally determined contributions (NDCs) under the Paris Agreement. The NDC Explorer creates more transparency about countries' climate ambitions and priorities, allowing you to track implementation and compare initiatives.

Marching for science

Resistance to facts, suspicion of science and acceptance of "alternative facts" seem to be increasingly shaping the public agenda. But at a time of unprecedented global opportunities and challenges, we need science more than ever. SEI is a proud supporting partner of the **March for Science** in Sweden, and stands behind its three fundamental principles:

- Science that serves the common good
- Open, honest and inclusive science communication
- Evidence-based policy and regulations.

2017

January

February

March

April

May

June

July

August

Strengthening SEI's ties with partners around the globe

In 2017 SEI signs a pair of institutional agreements with partners in Latin America and Asia. In January, SEI and Instituto Humboldt agree to deepen already existing ties between the two organisations, who have already carried out a joint research project in the Orinoco River Basin. Later in 2017, SEI sign a formal Memorandum of Understanding with Chulalongkorn University in Bangkok to develop innovative research agendas and education programmes to support the challenges facing Asia.

Building closer ties with partners in Latin America and Asia is an essential to ensure that research insights are calibrated to and taken up by local decision-makers.

– Johan Kuylenstierna, Senior Advisor, SEI

Deforestation-free supply chains

At Tropical Forest Alliance 2020, a major meeting of governments, businesses and NGOs commits to ending deforestation of rainforests, and SEI and the Global Canopy Programme unveil improvements and new features in Trase, our supply chain transparency and sustainability platform. The improvements make it possible to follow exports of soy and beef from Brazil, Paraguay and Argentina. For companies trying to live up to their sustainability commitments, and governments implementing policies to combat deforestation, Trase brings them a step closer to mapping all the major supply chains driving deforestation.

Estonian EU Presidency

Just as the US administration announces its intention to withdraw from the Paris Climate Agreement, Estonia takes over the Presidency of the European Union. SEI is there, supporting the Estonian administration in providing leadership on sustainability. Among the work of SEI in Tallinn is a project with the Estonian Ministry of the Environment aimed at engaging businesses in the EU's environmental management scheme and the "circular economy".

The drama of sustainability

Science can seem sterile at times. And when the evidence points to the need for a change in behaviour and mindset, are facts the only currency of those changes? SEI has been working with the performing arts to create spaces where the science of sustainability meets the senses and emotions. Art and science have the same starting point – curiosity without preconceived answers. They start with hypotheses, by asking the important questions. In August, the latest phase in this collaboration sees the performance of a play, 'While the Clock Ticks', at a festival in Stockholm. The play explores the drama of living sustainably, by exploring the experience of scientists as their research comes into contact with daily life.

Recommendations for a resilient Arctic

At the Arctic Council Showcase, which highlights achievements during US presidency of the Council, SEI presents blueprints to guide policy on resilience in the region. Joel Clement, co-chair of the Arctic Resilience Report Project, describes the report as "an unprecedented effort to gain insight from what is happening on the ground. The findings are foundational to a more informed, coordinated response to building resilience across the region."

Evidence for high-level discussions on the 2030 Agenda

Ahead of the High-level Political Forum on Sustainable Development, SEI contributes a report on the connections and interactions among the SDGs under consideration at the Forum. SEI Research Director, Måns Nilsson, presents this paper and related research at an event organised by the OECD.

September

October

November

December

Mitigation through negative emissions

With 16 of the 17 warmest years on record having occurred since 2000; as oceans warm and acidify; and with unequivocal scientific evidence that burning fossil fuels is the principal cause – what can we do to rapidly reduce greenhouse gas emissions? Negative emission technologies are already influencing policies and laws and if we rely on these technologies and they fail to succeed we will be locked into a two-degree world. This is the topic of the 2017 Gordon Goodman Lecture, which is delivered by Kevin Anderson, Professor of Energy and Climate Change at the University of Manchester and Deputy Director of the Tyndall Centre for Climate Change Research.

A Silicon Valley for sustainable finance

The financial sector has a crucial role to play in shifting capital allocations towards investments consistent with the Sustainable Development Goals. As world leaders gather at the One Planet Summit to discuss how to finance low-carbon development, the Government of Sweden, SEI and the Stockholm School of Economics launch the Stockholm Sustainable Finance Centre, a collaboration for research, innovation and education on sustainable finance. Luca De Lorenzo, Head of the Climate, Energy and Society Unit at SEI, explains: "We have to understand what makes sustainable finance successful and how to mainstream it. The new centre will develop the evidence base for financial institutions and policy-makers to create conditions for sustainable finance to expand and allow green financial markets to continue to grow."

Implementing the SDGs in Latin America

SEI convenes a retreat for Latin American policy-makers to share experiences and challenges in implementing the Sustainable Development Goals. Officials from a range of ministries from 13 countries in the region are represented at the event. The retreat in **Bogotá** is the second of a new set of policy retreats initiated by the Independent Research Forum (IRF) – the partnership of 10 leading sustainable development research institutes that support the SDG negotiations. The retreats are endorsed by the High Level Group in support of the implementation of the 2030 Agenda, a coalition of nine countries, created in 2015 at the initiative of the Prime Minister of Sweden.

Reaching out at the climate summit

COP23 – formally, the 23rd session of the Conference of the Parties to the United Nations Framework Convention on Climate Change – begins on 6 November in Bonn, Germany. With nations of the world poised to discuss the aims and implementation guidelines of the Paris Agreement, SEI is there with ideas and solutions from a broad portfolio of research and capacity development.

Impact in the scientific community

Two papers in top ranked journals Nature and Science

Impacts and mitigation of excess diesel-related NOx emissions in 11 major vehicle markets
Anenberg, S.C., Miller, J., Minjares, R., Du, L., Henze, D.K., Lacey, F., Malley, C.S., Emberson, L., Franco, V., Klimont, Z. and Heyes, C. *Nature*, (2017), 545 (7655), pp.467–471.

This paper revealed the scale of "dieselgate", in which some car manufacturers manipulated the way their vehicles behaved in emission tests to provide results that could not be replicated in normal use. The paper is ranked among the top peer-reviewed articles of 2017 by Altmetric.

A climate policy pathway for near- and long-term benefits
Shindell, D. Borgford-Parnell, N., Brauer, M., Haines, A., Kuylenstierna, J.C.I., Leonard, S.A., Ramanathan, V., Ravishankara, A., Amann, M. and Srivastava, L. *Science*, (2017), 356 (6337), pp.493–4.

This paper shows how targets to reduce global emissions of short-lived climate pollutants (SLCPs) such as methane and black carbon could slow global warming while boosting public health and agricultural yields. It demonstrates that without reductions in both CO_2 and SLCPs, temperature increases are likely to exceed 1.5°C during the 2030s and 2°C by mid-century. It proposes near-term targets to reduce global anthropogenic methane and soot-rich emission sources by 2030, and eliminating high-warming hydrofluorocarbons (HFCs) used in refrigerators and air conditioners.

Notable peer-reviewed articles

Launched in 2015, the SEI Initiatives are hubs for research excellence. They support SEI's development by attracting external funding, enabling SEI to add new scientific expertise and shape the science–policy agenda on key issues within sustainable development. Nine Initiatives were running during 2017, and among their activities and outputs were some notable peer-reviewed journal articles.

Climate services
Vulturius, G., André, K., Gerger Swartling, Å., Rounsevell, M.D.A, Brown, C. and Blanco, V. 'The relative importance of subjective and structural factors for individual adaptation to climate change by forest owners in Sweden'. *Regional Environmental Change*, (2017), 18 (2), pp.511–520.

Transforming development and disaster risk
Thomalla, F., Lebel, L., Boyland, M., Marks, D., Kimkong, H., Sinh, B.T. and Nugroho, A. 'Long-term recovery narratives following major disasters in Southeast Asia'. *Regional Environmental Change, 18:4, (Apr. 2018), pp.1211–1222.*

Producer to consumer sustainability
Garrett, R.D., Gardner, T.A., Morello, T.F., Marchand, S., Barlow, J., de Blas, D.E., Ferreira J., Lees, A.C. and Parry, L. 'Explaining the persistence of low income and environmentally degrading land uses in the Brazilian Amazon'. *Ecology and Society*, (2017), 22 (3):27.

Low-emission development pathways
Haines, A., Amann, M., Borgford-Parnell, N., Leonard, S., Kuylenstierna, J. and Shindell, D. 'Short-lived climate pollutant mitigation and the Sustainable Development Goals.' *Nature Climate Change*, (2017), 7 (12), pp.863–869.

Behaviour and choice
Jürisoo, M., Lambe, F. and Osborne, M. 'Beyond buying: The application of service design methodology to understand adoption of clean cookstoves in Kenya and Zambia'. *Energy Research & Social Science*, 39 (May 2018) pp.164–176.

Sustainable sanitation
Dickin, S., Bisung, E. and Savadogo, K. 'Sanitation and the commons: The role of collective action in sanitation use'. *Geoforum*, 86 (Nov. 2017), pp.118–126.

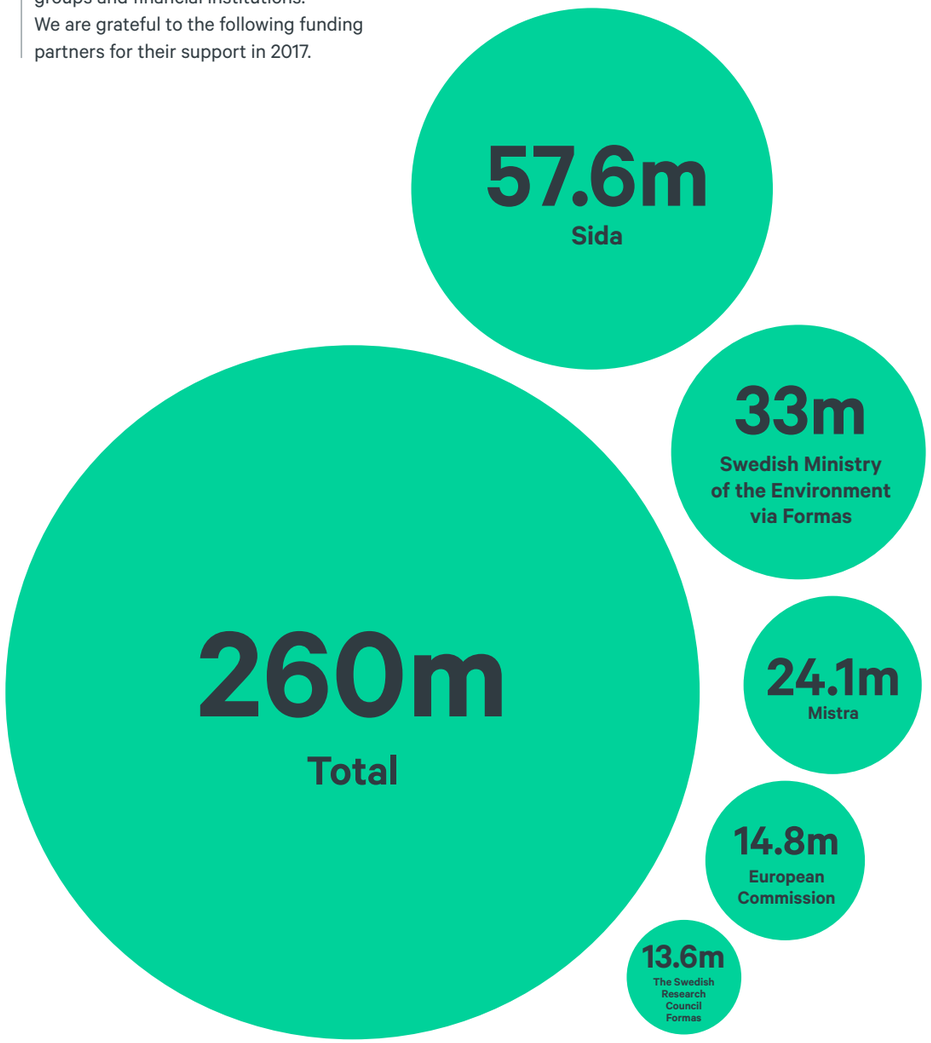
Water, energy and food
Weitz, N., Strambo, C., Kemp-Benedict, E. and Nilsson, M. 'Closing the governance gaps in the water-energy-food nexus: Insights from integrative governance'. *Global Environmental Change*, 45 (Jul. 2017) pp.165–73.

Fossil fuels and climate mitigation
Erickson, P., Down, A., Lazarus, M. and Koplow, D. 'Effect of subsidies to fossil fuel companies on United States crude oil production'. *Nature Energy*, (2017), 2 (11), pp.891–898.

Global finance
Atteridge, A. and Remling, E. 'Is adaptation reducing vulnerability or redistributing it?' *WIREs Clim Change*, 9 (1), (Jan./Feb. 2018), e500.

Funding sources

As an independent research and policy organisation, SEI receives funding from a wide variety of sources, including government departments, development agencies, non-government organisations, private sector business ventures, academic and research groups and financial institutions. We are grateful to the following funding partners for their support in 2017.



Top five funders and total funding.
All figures are in SEK millions.

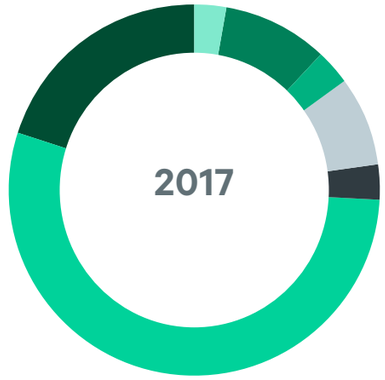
Funding sources above SEK 40 000

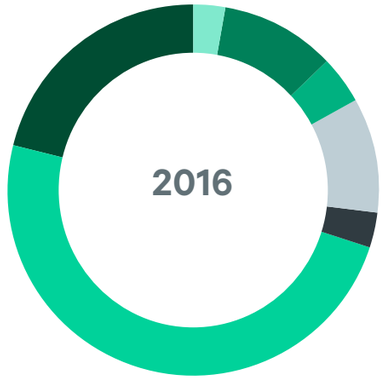
Adelphi GmbH	**164 450**
AECOM International Development	**72 964**
ASEAN Secretariat	**293 765**
Asia-Pacific Network for Global Change Research (APN)	**98 045**
Australasian Consortium of Humanities Research Centres (AHRC)	**258 846**
AXA Research Fund	**584 452**
BAC & Company	**239 138**
Belgian Office of Cooperation in Bolivia	**113 217**
BGR	**123 483**
Bill & Melinda Gates Foundation	**9 810 576**
Biotechnology and Biological Sciences Research Council (BBSRC)	**186 978**
Bloomberg Foundation	**1 283 137**
Blue Moon Fund	**3 003 998**
British Academy	**2 903 916**
British Council	**99 941**
California Department of Water Resources via MWH	**160 561**
California State Water Resources Control Board	**66 277**
California State Water Resources Control Board via ICF	**5 797 642**
Center for International Climate Research (CICERO)	**1 572 848**
Centre for Ecology and Hydrology	**146 291**
Centro del Agua del Trópico Húmedo para América Latina y el Caribe (CATHALAC)	**69 974**
CIDSE	**147 587**
Cities Alliance	**568 532**
Climate & Clean Air Coalition (CCAC) via UNEP	**4 692 962**
Climate and Energy Advisory	**391 869**
Climate Solutions	**89 566**
Corpoboyacá Colombia	**78 832**
DANIDA	**675 468**
David Ford Engineering	**40 832**
Department for Environment, Food and Rural Affairs (DEFRA)	**1 112 715**
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	**1 665 898**
DFID via Oxford University	**485 349**
DFID via WYG International Limited	**2 565 179**
Directorate-General Environment Belgium	**254 441**
Earthjustice	**226 797**
EED Advisory Ltd	**107 434**
Elering AS	**48 727**
Enterprise Estonia	**137 026**
Environmental Board Estonia	**58 472**
Environmental Investment Centre (KIK)	**222 096**
ESPA via Tokyo university	**57 936**
EST-FOR Invest OÜ	**145 688**
Estonian Association for Environmental Management (EKJA)	**86 310**
Estonian Council of Environmental NGOs (EKO)	**52 379**
Estonian Ministry of Defence	**43 539**
Estonian Ministry of the Environment	**92 532**
Estonian Research Council (ETAG)	**40 871**
European Commission	**14 837 717**
European Environment Agency	**319 530**
European Forest Institute	**444 883**
FONERWA via Albertine Rift Conservation Society (ARCOS)	**694 262**
Freie University Berlin	**89 003**
GFA Consulting Group GmbH	**229 680**
Global Alliance for Clean Cookstoves	**128 472**
Global Canopy Foundation	**59 810**
Global Environment Facility via WWF	**2 099 319**
Global Resilience Partnership via University of Sydney	**489 776**
Gordon and Betty Moore Foundation	**5 199 717**
Gordon and Betty Moore Foundation via TNC	**1 485 847**
Government Offices of Sweden	**544 325**
Heinrich Boell Foundation	**48 570**
Hendrikson ja Ko OÜ	**169 313**
Hugo Carlssons Stiftelse via Jernkontoret	**1 242 222**
HYBRIT	**126 875**
Implementation Science Network	**148 180**
Institute for Advanced Sustainability Studies (IASS)	**237 257**
Institute for Global Environmental Strategies	**138 529**
Inter-American Development Bank	**2 328 618**
International Center for Biosaline Agriculture	**451 779**
International Union for Conservation of Nature (IUCN)	**229 790**
International Water Management Institute (IWMI)	**101 317**
Korea Institute of Construction Technology	**656 724**
KR Foundation	**1 237 157**
La Corporación Andina de Fomento	**123 006**
Lancaster university	**447 922**
Leading Integrated Research for Agenda 2030	**79 150**

Marianne and Marcus Wallenberg Foundation	794 443
McKinsey & Company	122 901
Meridian Institute	180 886
National Science Foundation via University of North Carolina	307 769
Natural Environment Research Council (NERC)	1 322 043
Natural Resources Defence Council	718 893
Net Positive	245 976
Netherlands Ministry of Infrastructure and the Environment via MCI	161 825
Nordforsk	535 465
Nordic Council of Ministers via SYKE	599 022
Nordic Environment Finance Corporation	68 027
Oeko Institute	336 499
Oregon Department of Environmental Quality	78 264
Overlook Foundation	254 391
Oxfam	296 603
Peak District National Park Authority	210 986
PICO Eastern Africa	114 375
Regional Environmental Center for Central and Eastern Europe	41 622
Research Council of Norway	522 011
Resource Legacy Foundation	131 583
Rights and Resources Group	1 991 465
Riksbankens Jubileumsfond	105 719
Rockefeller Foundation via UN Women	655 061
Ross Associates	121 005
Royal Scientific Society Jordan	55 189
Santa Clara Valley Water District	1 336 457
Schmidt Family Foundation	441 608
Sida via Swedish University of Agricultural Sciences (SLU)	1 209 758
Sida via The Swedish Patent and Registration Office	52 692
SINTEF Energi AS	41 782
SNV Netherlands Development Organization	628 541
Swedish Agency for Marine and Water Management	356 086
Swedish Chemicals Agency	154 625
Swedish Civil Contingencies Agency (MSB)	300 710
Swedish Embassy in Bangkok	401 876
Swedish Energy Agency	3 061 806
Swedish Energy Agency via KTH	647 337
Swedish International Development Cooperation Agency (Sida)	57 563 132
Swedish Meteorological and Hydrological Institute (SMHI)	217 819
Swedish Ministry for Foreign Affairs	564 410
Swedish Ministry of the Environment and Energy via Formas	33 000 000
Swiss Development Corporation	323 523
TCC Group	64 071
Technical University of Denmark (DTU)	285 557
The Confederation of European Forest Owners (CEPF)	466 741
The Finnish Innovation Fund	277 595
The Nature Conservancy	419 550
The Overseas Development Institute (ODI)	75 600
The Swedish Environmental Protection Agency	3 093 219
The Swedish Environmental Protection Agency via SCB	1 086 726
The Swedish Foundation for Strategic Environmental Research (Mistra)	24 096 931
The Swedish Research Council (Vetenskapsrådet)	857 995
The Swedish Research Council Formas	13 552 416
The Swedish Research Council Formas via Lund University	110 615
Thurston Regional Planning Council	91 616
Tufts University	62 985
US Department of Agriculture	1 489 032
US Department of Energy	685 314
US Environmental Protection Agency	2 855 865
UCL Consultants Ltd	42 684
United Arab Emirates Ministry of Environment via CCRG	225 167
United Nations (UNEP, UNESCO, UNOPS, UNU, UNISDR, FAO)	3 237 750
Universidad Nacional de Colombia	168 497
University of California Berkeley	224 558
University of Edinburgh	255 992
University of Sussex	55 523
USAID via Abt Associates	180 129
USAID via ADPC	1 100 492
USAID via AECOM International	142 154
USAID via ICF	169 978
USAID via IRG (Engility)	1 078 632
USAID via PACT	203 085
USAID via Winrock International	1 462 260
Vinnova (Sweden's innovation agency)	1 778 745
World Bank	2 252 610
World Wide Fund for Nature (WWF)	1 247 624
Yolo County Flood Control and Water Conservation District	444 061

SEI financial statistics

SEI Global (pro forma) income, by centre





	%	RESEARCH vol. in SEK millions
SEI Africa	3%	6.9
SEI Asia	9%	24.1
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
	100%	260.0

	%	RESEARCH vol. in SEK millions
SEI Africa	3%	6.7
SEI Asia	10%	22.4
SEI Tallinn	4%	8.2
SEI York	10%	21.7
SEI Oxford	3%	6.2
SEI Stockholm/HQ	49%	105.4
SEI US	21%	46.3
	100%	216.9

SEI supports multilateral organisations, national governments and industry in translating the 2030 Agenda from wide-ranging, idealistic ambitions into achievable, actionable policies.

From Goals to action

All of SEI's work contributes to the delivery of the 2030 Agenda for Sustainable Development. Our aim is to turn this from an agenda *for* action into an agenda *of* action.

SEI's work on the 2030 Agenda and the Sustainable Development Goals supports the implementation of the SDGs by multilateral organisations, national governments, local communities and industry.

The following pages present just seven of SEI's current and recent projects, and the graphic opposite shows in green the SDG to which they relate most directly. The chords across the circle represent the many other connections that each project makes with other SDGs, highlighting the complex interactions and far-reaching co-benefits of all our work. You can find more detail on each of these seven projects in this chapter.

There are 425 organisations and 52 ministries working on the 2030 Agenda in Sri Lanka. Working with SEI to apply the framework helps to make SDG implementation effective. It provides a systematic approach to prioritising targets and analysing how policies can complement one another in the implementation process.

– Dr Yalegama, Ministry of Sustainable Development and Wildlife, Sri Lanka

Together with partners, SEI:

- Develops innovative methods and tools to support coherent and effective implementation of the 2030 Agenda, including the SDG Interactions Framework
- Provides informal spaces for government and civil society actors to learn, share knowledge and build capacity on SDG implementation
- Advises industry on the main touchpoints between their business and the SDGs, and how they can optimise strategies and processes for greater sustainability.

Mapping and measuring interactions

Will the citizens of the Philippines accept lower economic growth and fewer jobs for the sake of more sustainable development? Should Nepal invest its scant resources into infrastructure and leave climate change responses for later?

Policy-makers trying to mainstream the Sustainable Development Goals into national development strategies and budgeting processes cannot afford to treat these as either/or choices.

The answer is integrated policy solutions that push progress on clusters of SDG targets, or at the very least minimise trade-offs between them. But to plan them, policy-makers need an understanding of how targets will interact; and to put them into action, they need buy-in from different policy sectors. SEI is supporting both planning and action, with the aim of unlocking the full potential of the SDGs.

SEI has mined the complex field of systems science to create a useable and intuitive framework for assessing the interactions between SDG targets at a given scale – regional, national, global.

The foundation of SEI's approach is a seven-point typology of interactions, developed with

partners in the International Council for Science (ICSU) and published in *Nature*. This typology moves discussion beyond simplistic synergy-versus-trade-off descriptions. It provides a structured, nuanced picture of how available development objectives could interact, leaving policy-makers better equipped for integrated decision-making.

Who has adopted the framework?

The SDG Interactions Framework has informed processes and guidelines in the UN system (such as the UN Development Assistance Framework guidance) and the OECD (PCD – Policy Coherence for Development).

For the High-level Political Forum, an SEI report identified gender equality as an SDG with strong co-benefits across all other SDGs: "The overwhelmingly positive interactions with other goals suggests that actions to improve gender equality can be important levers for the 2030 Agenda overall. Getting to grips with gender in development interventions will enhance development outcomes across the economy and the sectors of health, education, food, sanitation, and even possibly environmental protection."

A practical toolkit for implementation

In 2017, SEI has pushed the framework from agenda-setting concept to practical application. In partnership with UNDP, SEI is now applying the framework with the Government of Sri Lanka to inform and assist the development of a full national SDG implementation strategy. UNDP Asia-Pacific is also funding the application of the interactions framework to develop an integrated water sector strategy for the Government of Mongolia, aligned with the 2030 Agenda and its national sustainable development vision.

Once important interactions have been identified, SEI can offer a range of practical tools and methods to explore cross-sectoral solutions. These include, among many others, the WEAP platform to explore water management options in the light of conflicting demands, climate change and other factors; the LEAP platform for long-term energy planning; and scenario methodologies to evaluate policy choices under different possible futures.

SEI's unique contribution is geared to helping governments and companies understand how the targets, and the policy choices to meet them, interact. This opens the way to win-win collaborations between different policy sectors, and gives early warning of areas where action to meet one target might undermine progress on another.

– Annie Sturesson, Research Fellow, SEI

Sharing knowledge, building capacity

Together with the International Institute for Environment and Development, SEI is coordinating the Independent Research Forum (IRF), a collaboration of 10 research institutes from across the globe. In 2017, the IRF started a series of regional retreats for policy-makers to informally share experiences and successes in implementing the 2030 Agenda in West Africa and Latin America.

"We want to identify viable strategies to face the challenges of sustainable development in Latin America and to propose solutions as a region. We'll be looking at common methods and approaches that facilitate and finance the implementation of the 2030 Agenda," explains María Ignacia Fernández from Rimisp in Latin America.

The initial experiences with the retreats have been extremely positive, and participants articulate the value of continuing this form of capacity development – through policy learning in networks, south–south experience sharing and interactive workshops. As one participant in the Latin America retreat put it: "The workshop created transparency and trust to share information that up until today has not been possible to share in other type of events".

Advising industry

What do the Sustainable Development Goals mean for the Swedish steel industry? An existential challenge, given the industry's considerable emissions, or an opportunity for an innovative sector to develop the full societal potential of a uniquely recyclable and durable material?

SEI is working with the Swedish Steel Producers' Association (Jernkontoret) developing a "societal value creation compass" for the steel industry with the SDG interactions framework as its conceptual foundation.

"The SDGs are essentially the biggest purchase order the world has ever seen," says Eva Blixt, Senior Environmental Adviser and Research Manager at Jernkontoret. "Our research cooperation with SEI, and the broad group of societal stakeholders it involves, provides unique opportunities for our companies to develop their processes and products to deliver societal value. But what we accomplish here is actually not specific for the steel industry – the methodology and toolbox that we develop could be used by any sector."

SDG 1

No poverty

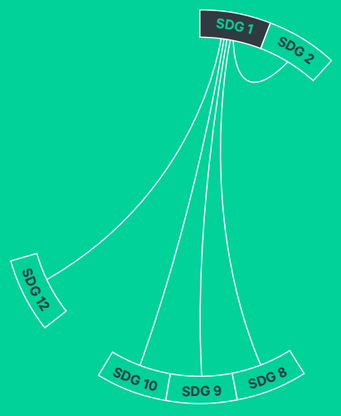
All of SEI's work can be viewed through the lens of alleviating poverty; we work to understand the confluence of factors – the social, environmental, political and economic circumstances – that keep people in poverty.

Connecting to the SDGs

This study from Hola focused on a rural community, since over 70% of the world's poor live in rural areas and rely on agriculture for their living. But its findings inform larger, systemic questions around how we tackle SDG 1, including whether we need to reconsider the way in which development interventions are designed and delivered.

The Hola project has co-benefits for a number of other SDGs, but perhaps most significantly for decent work and economic growth (Goal 8).

SDG research connections



Understanding behaviour – accelerating development

An SEI research project on mango farming in Hola, Kenya, found that technological solutions are not always suitable – especially when they attempting to solve the wrong problem. Through user-led research methods, researchers were able to understand the real needs of the people they were trying to help, which will enable nuanced and effective investment decisions.

Crop loss and rural poverty

Crop losses, especially during and after harvest, place a huge economic burden on farmers across Kenya, Nigeria and Tanzania: their time and labour are wasted, and resources they've poured into their crops go down the drain. Half of the produce from these countries is lost before it can reach market.

Small-scale farmers are affected most of all, which is why simple technologies were being introduced to mango growers in Kenya: improved packing crates, fruit-fly traps, fertilisers and 'tar-pulling' (for cosmetic care of the fruit, post-harvest). It was hoped that these improvements would reduce losses, and help to lift growers out of poverty.

But adoption of these technologies remained stubbornly low. A team of SEI researchers from the Behaviour and Choice Initiative, with the support of a number of local partners and the Rockefeller Foundation, wanted to understand *why*, with the aim of then suggesting ways to increase uptake of the "better" farming technology.

Local engagement, local understanding

Once on the ground, however, the research team discovered that uptake wasn't just low – it was almost non-existent. It quickly became clear that a new approach and a new set of research questions were needed.

Through user-led methodology – derived from service design theory, prioritising the behaviour, context and needs of the end user – the researchers gained a thorough understanding of the mango-farming ecosystem directly from those involved in it. This included running workshops involving the various actors in the mango value-chain, and mapping interactions between them all, and the creation of a "typical" Hola mango farmer as a route to understanding. Thanks to this bottom-up, holistic approach, the project's findings were *directly* relevant for local farmers.

A question of incentives

The study found that growers had little or no incentive to use new technologies to improve the quality of their crops, since almost all of their product went for pulping or juicing. They also found most growers around Hola worked mixed farms, with mangoes accounting for less than 20% of their income, on average – a further disincentive to investment. Poor infrastructure such as roads, meant growers had limited or no access to more lucrative (higher priced) export markets. These results were dramatic – and unexpected – and are leading to improved policies to support growers and their communities.

But the key impact of this study was in showing that, through behavioural and user-centred methodology, and by working with local actors to understand local context, we can and should rethink assumptions around development, to provide better designed and more effective interventions.

[This study] was a different way of capturing the realities that happen on the ground ... With this information we are able to understand the entry points for how to effectively influence change.

– Kagwiria Koome, Rockefeller Foundation, Kenya

SDG 3

Good health and well-being

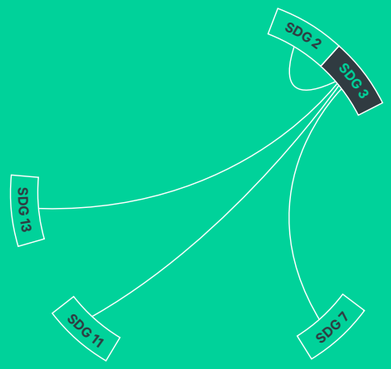
Human wellbeing is one of the ultimate aims of SEI's work. Our research explores the interconnections between human health and environmental sustainability. Our work has made particular contributions to policies on air pollution, access to sanitation and improving maternal health.

Connecting to the SDGs

The LEAP platform has been in use for more than a decade, and already makes a significant contribution to improving access to affordable and clean energy (Goal 7), and work to tackle climate change (Goal 13). But LEAP's potential impacts on health (Goal 3) and agriculture (Goal 2) are only now beginning to be understood.

Recent research using LEAP has shown the interconnectedness of health and climate policies, making a clear case for joined-up thinking across government departments. Our work is also highlighting the kinds of co-benefits this approach could bring.

SDG research connections



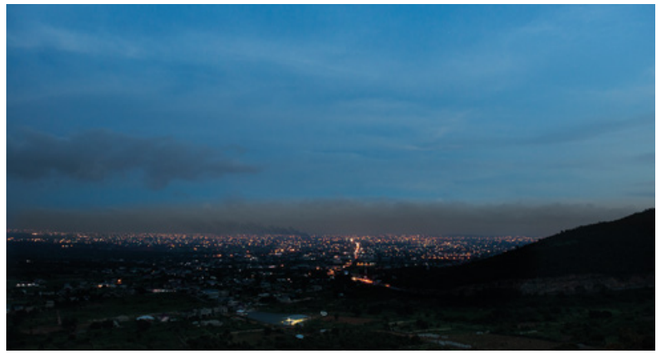
Making the leap – better health through climate action

Climate change isn't only caused by carbon dioxide emissions. Other compounds – like soot, methane, ozone and fluorinated gases – also have a big impact. While most remain in the atmosphere for less time than CO_2, they can be many times more potent, and action to reduce them can lead to swift reductions in warming. SEI has helped show that cutting emissions of these short-lived climate pollutants will also significantly reduce premature deaths.

LEAP-IBC – Energy, climate and health calculator

SEI's energy planning tool, LEAP – the Long-range Energy Alternatives Planning system – is used by governments all over the world to help meet their climate commitments under the Paris Agreement. The LEAP team continues to develop the system, to allow policy-makers and other researchers to meet new and ongoing energy challenges, and develop innovative policy. A recent update is the new integrated benefits calculator – LEAP-IBC – which allows the user to quantify the number of premature deaths that could be avoided through reducing emissions, alongside impacts on global temperature.

Premature death is only one of the possible health outcomes of air pollution. LEAP-IBC can be applied to many others and will prove a vital tool for research into a range of health impacts.



LEAP-IBC will allow Chile to compare predicted impacts of policies within specific implementation periods, and to use these results to support informed and efficient policy decisions.

– Priscilla Ulloa, Ministry of Environment, Chile

Integrated solutions

LEAP-IBC has been used by organisations in almost 190 countries, and is currently being used by policy-makers and planners in Bangladesh, Chile, Colombia, Côte d'Ivoire, Ghana, the Maldives, Mexico, Morocco, Nigeria, Peru, the Philippines, and Togo. Many governments use the platform to help meet their climate commitments under the Paris Agreement, but many are also using LEAP to integrate health co-benefits into their strategies.

The Government of **Ghana** has been using LEAP for more 10 ten years. Simpson Attieku, Senior Energy Analyst at the Ghana Energy Commission, said that the new capacity to measure the health and climate benefits of low-emissions strategies is "creating new links between government ministries". For example, setting up a soot-free bus system in Ghana would normally be the sole responsibility of the transport ministry, but Attieku found that by using LEAP-IBC, "the health ministry has realised that this is really part of their agenda as well."

Chile uses LEAP-IBC for national planning on short-lived climate pollutants, and views the tool as vital for assessing the benefits and trade-offs of different policy choices. Initially Chile is focusing on replacing wood combustion heaters and promoting electric buses. Priscilla Ulloa of Chile's Ministry of Environment said, "Chile's approach is to address local air pollution and climate change through integrated public policy mitigation actions."

Looking ahead

By showing how climate action and human health are connected, LEAP-IBC is helping countries to meet climate and health goals through joined-up action.

Demand for the tool is growing. SEI will partner with Chile, Ghana, Mexico and Peru to develop it further, to make integrated analysis that is more relevant, and easier to apply.

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. An SEI report to the UN highlighted the immense benefits that could be realised through addressing gender equality and the "overwhelmingly positive interactions with other Goals ... Actions to improve gender equality can be important levers for the 2030 Agenda overall."

Connecting to the SDGs

This project in Burkina Faso has revealed one important way in which gender inequality can become entrenched. Equitable access to, and responsibility for, water, sanitation and hygiene (Goal 6) is essential if gender inequalities are to be overcome.

Addressing gender inequalities has co-benefits across the SDGs. For example, increasing girls' participation in education (Goal 4) not only raises their economic prospects but also their perceived ability to contribute to decision-making. Girls' education, and access to sexual and reproductive health and rights, reduces maternal mortality and the spread of disease (Goal 3).

SDG research connections

Gender in water and sanitation – empowerment by numbers

Adaptation to water insecurity can create valuable opportunities to redress imbalances in decision-making power between men and women, or between different ethnic and socio-economic groups. But how do we identify those imbalances? And how do we measure success? When it comes to the issue of water, sanitation and hygiene (WASH), an SEI project in Burkina Faso is developing a new Empowerment in WASH Index that aims to do just that.

Different roles, different risks

"We don't have enough water ... What should we do?" This simple question encapsulates the dilemma faced daily by many rural women in Tenkodogo, Centre-Est region, Burkina Faso. While men often react to seasonal water scarcity by migrating to find paid work, women stay at home to keep the household and farm running, the family clean and fed.

They cope with water scarcity by, for example, strictly rationing household water use, giving up small side-businesses, or getting children to help collect water. Often the only available water comes from sources shared with livestock or contaminated with dangerous pathogens.

Water scarcity is likely to become an even bigger problem in the coming years, as climate change interacts with the region's already volatile climate. That's why organisations, like our research partner WaterAid, are working with communities and local authorities in the region to devise long-term adaptation plans.

These plans could alleviate much of the pressure on women. But they could also perpetuate existing inequalities and risks, if they do not take into account the different ways men and women experience and cope with water scarcity. In particular, if men and women are to have an equitable future, it is vital that women are given an equal say in the planning process.

Understanding women's WASH vulnerability

A project supported by a REACH catalyst grant aims to develop a research tool to explore and quantify women's empowerment in relation to water, sanitation and hygiene (WASH).

The first phase of the project included a research visit to Burkina Faso in 2017, to interview villagers and other stakeholders about the different ways men and women are exposed to WASH insecurity.

Among the initial findings, several stood out. Payment of water fees is usually considered men's responsibility, while collecting water for the household is considered women's work. Men often respond to water scarcity by migrating for work; while they send home remittances, they do not bear the day-to-day burden of coping with water scarcity. Water insecurity creates poverty traps, as it reduces income, and increases the likelihood of illness from using contaminated water supplies. And despite their day-to-day responsibility for water in the house, women are given little say in community-level or local authority decisions related to water and sanitation.

An index of empowerment

While these findings can directly help organisations like WaterAid to support community adaptation plans, they are also raw material for developing an Empowerment in WASH Index.

A lot of WASH projects set out to look at gender empowerment, or promise certain results. This tool will be a way to actually quantify the outcomes, as well as to compare empowerment between different projects and countries.

– Sarah Dickin, Research Fellow, SEI

Inspired by IFPRI's Women's Empowerment in Agriculture Index, the Empowerment in WASH Index will look at differences in, for example: decision-making power in the household and in the community; access to income; and time use, to quantify empowerment in a way that allows comparison over time and between populations.

The index will be co-developed with stakeholders from community up to national level and practitioner networks in Burkina Faso and Ghana during 2018.

The key route to impact of the Empowerment in WASH Index will be its ability to measure empowerment in a consistent, comparable way. This will be invaluable in project design, as well as in monitoring and evaluating the results.

SDG 6

Clean water and sanitation

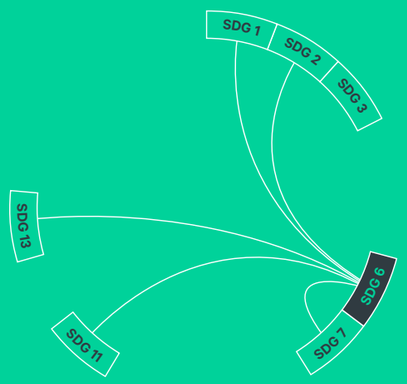
Water is fundamental to human development, from drinking water and sanitation to agriculture and generating electricity. SEI offers knowledge and solutions for how to manage water resources in a connected way to ensure water, energy and food security for all.

Connecting to the SDGs

Many countries face similar issues to those in Bolivia. More than two-thirds of the world's population lives in areas suffering severe water scarcity at least one month a year, and a similar number lack access to safely managed sanitation.

Access to water and sanitation is a prerequisite for escaping poverty (Goal 1) and ending hunger (Goal 2), for better health (Goal 3) and creating liveable cities (Goal 11), and connects with many other SDGs, not least on the provision of renewable energy (Goal 7) and climate action (Goal 13). This is why SEI is helping policy-makers and stakeholders in dozens of countries to find solutions for sustainable water management.

SDG research connections



Addressing a growing water crisis in Bolivia

Like many countries, Bolivia faces a deepening water crisis that threatens to leave millions without secure, safe drinking water. Using our sector-leading Water Evaluation And Planning (WEAP) tool, SEI helped the country plan for the future by creating the first-ever comprehensive model of Bolivia's rivers, lakes and streams.

A long-simmering challenge

Shrinking glaciers, extreme droughts and management challenges threaten Bolivia's water supply. In the past, these shortages have led to controversy; in 1999, for example, a series of protests that became known as the Cochabamba Water War led the government to reverse the privatisation of the city's water.

Almost 20 years later, Bolivia continues to face supply issues. In 2016, the country suffered its worst drought in 25 years. The water shortages affected 125 000 families and 283 000 hectares of agriculture, and led to the declaration of a state of emergency. And the very next year, the capital, La Paz, suffered a further historic drought. Drought can be a struggle throughout much of the country, but agricultural communities also face the challenge of maintaining their livelihoods in the face of uncertain water availability.

The country is making efforts to improve water planning and build capacity in the regions so they can have better information about their water availability, current water uses and potential future developments.

Bolivia's Ministry of Environment and Water was keen to have a uniform dataset that could act as a baseline to inform water planning in the regions. It engaged SEI to help develop this "national water balance" using our Water Evaluation And Planning (WEAP) system.

Setting the stage for a sustainable future

The completed model, which SEI unveiled in November 2017, contains information about all available water supply in Bolivia, using data from field measurements and satellite records. To create this model, SEI collaborated with the Ministry of Environment and Water, the Institute of Hydraulics and Hydrology at the Higher University of San Andrés in La Paz, and the Laboratory of Hydrology at the University of San Simón in Cochabamba.

SEI and its partners used new computational methods, including automatic catchment delineation and gridded climate data, to bring the data together in a WEAP platform.

While the public can access the platform through a web system called Geovisor, the platform also includes a suite of tools for researchers and local water planners to update and refine the model. The Ministry and SEI organised a series of training and discussion sessions with planners to make sure that these tools were well understood, and used effectively.

Through these sessions, 40 Bolivian water planners were successfully trained in using WEAP and other data processing tools to assess current and future water availability – one of the primary impacts of the project. We also developed training materials to replicate these capacity-building sessions for future water managers.

The successful implementation of this project was due to the Ministry's trust in SEI's capacity to lead this effort. SEI was a catalyst in bringing together actors that normally don't sit in the same room, such as researchers from competing academic organisations and from different regions of the country. This strong partnership ensured not only a strong model, but also a trusted one that has the buy-in of a diverse set of stakeholders.

This is a very important step towards true integrated watershed management in Bolivia.

– Oscar Meave, Chief of Special Studies, Ministry of the Environment and Water, Bolivia

SDG 12

Responsible consumption and production

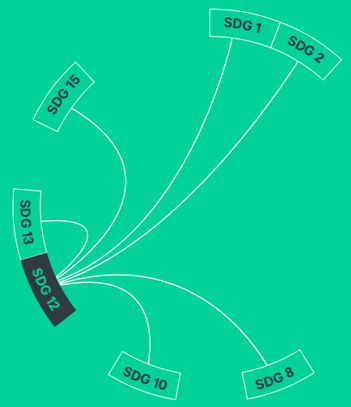
Today's patterns of consumption and production already have grave environmental and socio-economic impacts; they cannot simply be scaled up to meet new demand. SEI tools and projects examine the connection between consumption- and production-related impacts, from every angle.

Connecting to the SDGs

The global economy is characterised by long, complex supply chains that connect commodities, goods and services to consumers, and economic benefits to producers. Applying innovative tools and analytical approaches in partnership, SEI is setting out the sustainability implications and potentials of global supply chains.

While reducing deforestation is clearly linked to life on land (Goal 15) , no hunger (Goal 2) and climate action (Goal 13), the work of Trase is part of SEI's portfolio of initiatives around responsible consumption and production (Goal 12). The connections with sustained economic growth (Goal 8) , reduced inequalities (Goal 10) and poverty reduction (Goal 1) are clear, though often complex.

SDG research connections



Trase – A game changer in supply chain transparency

A lack of transparency in global supply chains creates the "hidden spaces" in which resource misuse can take place – wholesale deforestation in tropical regions being perhaps the most notable example. To combat this, SEI and partner Global Canopy launched the Trase initiative – Transparency for Sustainable Economies – in 2016. Trase provides support to governmental, multilateral and private-sector efforts to eliminate tropical deforestation, and has quickly become established as a game changer in supply chain transparency and sustainability governance.

A cultural shift

One of the biggest drivers of deforestation in the world's remaining tropical forests is agricultural expansion to meet the relentless demand for commodities such as soy, palm oil, coffee, cocoa and beef. As well as threatening biodiversity, this deforestation has negative impacts on the global climate and on local communities. After decades of inaction, many companies and governments are committing to eliminate deforestation from their supply chains. However, despite increasingly good intentions, the opacity (and complexity) of global trading networks have severely limited progress, and continue to mask unsustainable practices.

From start-up to key player

Trase enables users to understand the flows of so-called forest-risk commodities. It dynamically maps and visualises the movement of commodities from their point of production to the importers in consumer countries around the world. Through such "blanket" transparency, Trase reveals the movements of almost the entire internationally traded volume of the commodity and identifies the various actors (traders, exporters, importers, shippers) along the supply chain. Trase complements this mapping with other information to create a powerful decision-support tool for governments and companies.

Since its launch at the COP22 climate summit in late 2016, the initiative has radically changed perceptions of what is possible in supply chain governance. The Trase team has quickly positioned Trase at the heart of a number of critical processes led by companies, governments and civil society.

Trase is the lead research partner in the new **Soy Buyers Coalition**, for example. This initiative, led by the Consumer Goods Forum, brings together downstream soy users including major European retailers, animal feed producers, food companies and others to collaborate on addressing deforestation linked to their soy supply chains. Trase is helping the coalition members to identify deforestation-risk hotspots in Brazil – particularly those that are in their supply chains – with a view to taking joint action to reduce deforestation. In a sign of their confidence in Trase, the companies involved in the coalition are sharing sensitive commercial data with the initiative to help the process.

In another important partnership, Trase is helping the bank Santander to use the **Trase.earth** platform to guide lending decisions. The Trase team is supporting Santander analysts in identifying appropriate indicators and analytics in order to assess the deforestation-risk profiles and performance of potential loan customers.

A respected monitoring tool

What's more, Trase is recognised as the only source of data for assessing progress towards Goal 2 of the 2014 New York Declaration on Forests: eliminating deforestation from the production of agricultural commodities. The Trase team has contributed report chapters comparing actual deforestation to different types and coverage of zero-deforestation commitment.

In 2017, Trase was invited to play a leading role in monitoring the delivery of the Balikpapan Challenge – an initiative signed in October 2017 in Indonesia by 35 state and provincial governors from across tropical forest states to accelerate low-emission development.

Trase can help catalyse improvements across the board: in production practices, procurement and investment policies and the governance of supply chains by both producer and consumer governments.

– Javier Godar, Senior Research Fellow, SEI

SDG 13

Climate action

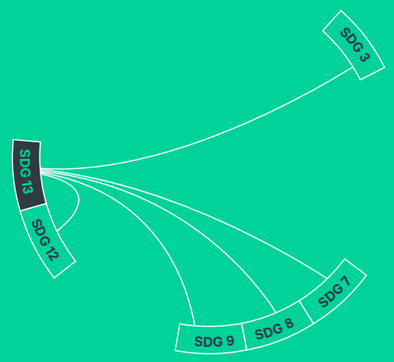
To meet ambitious climate targets, we must transform our energy systems, how we use natural resources, and how we produce and consume goods and food. We must also adapt to climate impacts. SEI focuses on effective, equitable ways to mitigate and adapt to climate change for a safer climate for all.

Connecting to the SDGs

The combustion of fossil fuels is the largest contributor of greenhouse gases, so reducing the world's reliance on them is critical to tackling climate change.

SEI's work on fossil fuel supply has helped uncover a promising new set of climate policy options, by bringing a focus on fossil fuel production in addition to consumption. We have shed light on new opportunities to break unsustainable development pathways, and ensure that communities aren't left behind in a transition to a low-carbon economy.

SDG research connections



Putting fossil fuel supply on the global climate policy agenda

SEI provides practical guidance on how to phase down fossil fuel production under the Paris Agreement. At the 2017 Conference of the Parties (COP), NGO partners successfully used SEI research on the topic – including a working paper, policy brief and journal article – to inform country delegations about their options for tackling fossil fuel production under the United Nations Framework Convention on Climate Change (UNFCCC).

Breaking the silence on fossil fuel production in the UNFCCC

To meet the Paris Agreement's goal to keep global warming "well below" 2°C, the world must phase down the production – and not just the consumption – of coal, oil and natural gas.

But the phrase "fossil fuels" doesn't appear in the text of the Paris Agreement, despite the established link between combustion of these fuels and climate change. Indeed, the topic of fossil fuel production has been sidelined in global negotiations for most of the 25-year history of the UNFCCC.

SEI has worked to change this since the inception of the Fossil Fuels and Climate Change Initiative in 2015. Researchers have produced analysis, publications, op-eds, and presentations – as well as convened a conference and side events – for the past three years, in an effort to help shift the discourse on fossil fuels and climate change at the UNFCCC's annual COP.

The tide begins to turn

In November 2017, the Parties gathered in Bonn, Germany for COP23. SEI prepared and distributed several reports that outlined concrete steps to address fossil fuel supply under the UNFCCC. This research was welcomed and disseminated by NGOs and delegates.

The timing was right for a new supply-side focus. Prior to COP23, the incoming COP President, Prime Minister Bainimarama of Fiji, stated that the 1.5°C target "means shifting away from fossil fuels altogether." In his opening statement, the UN Secretary General António Guterres called fossil fuel investments "bets on an unsustainable future that will place savings and societies at risk." And the Least Developed Countries (LDC) Group's closing statement called for the planned 2018 Talanoa Dialogue to include "managing a phase-out of fossil fuels."

SEI's work provided a toolkit for those interested in addressing fossil fuel supply to identify how they could do so within the UNFCCC. Several factors aligned that helped increase the uptake of our work.

First, SEI has built a network and reputation as research leaders on fossil fuels and climate change, through our work in the Fossil Fuels and Climate Change Initiative. This makes it easier to disseminate our research and ideas through partners, and audiences are more receptive to our findings and recommendations.

Second, our publications emphasise tractable actions governments can take, in easily digestible formats that help audiences grasp ideas. For COP23, we issued a 32-page working paper that detailed the research, a 4-page policy brief that provided the key messages, and an op-ed that spread the message to a broader audience.

Finally, political circumstances at COP23 – notably, the choice by the US Government to host an event promoting fossil fuel production – significantly raised the profile of fossil fuels in discussions. SEI experts were on hand to discuss the ideas and approaches with delegates, other NGOs, international institutions, and industry. Other surprising connections were also made with subnational governments, including the US state of California, who shortly after the COP publicly resolved to study supply-side climate policy for its own oil production.

Concrete steps towards action

In the reports distributed at COP23, SEI offered clear and practical guidance on how Parties could address fossil fuel supply under the UNFCCC. Among SEI's key points were that countries can include targets and actions related to fossil fuel supply in their Nationally Determined Contributions, and that they can plan for a phase-down of fossil fuels in their long-term low greenhouse gas emission development strategies. SEI also outlines how the UNFCCC can track progress towards a phase-down through the global stocktake, as well as help countries by providing technical and capacity-building support.

We are at a critical turning point as the climate debate is finally beginning to address the need to manage the inevitable decline in fossil fuel supply.

– Michael Lazarus, Senior Scientist, SEI

SDG 16

Peace, justice and strong institutions

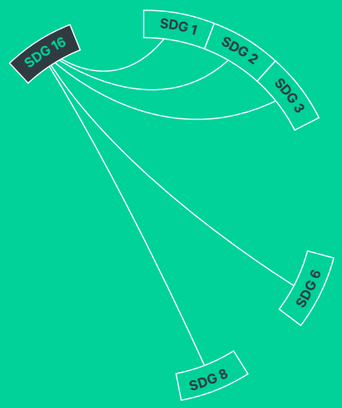
Implementing the 2030 Agenda requires institutional capacity as well as scientific evidence. Across the world, SEI is building capacity to deliver the SDGs, whether by helping to set up a River Basin Organisation in Myanmar or creating a certification framework for sustainable rural sanitation.

Connecting to the SDGs

This project in Mynanmar shows how a shared resource requires effective institutional arrangements to manage diverse interests and maximise benefits for people and the environment.

In this case, a new institution, the Chindwin River Basin Organisation, is unlocking the potential to deliver goals locally, on health (Goal 3), water resource management (Goal 6), agricultural production and livelihoods (Goal 8). And by creating an inclusive process, the chances of success have increased.

SDG research connections



Improving water management, supporting local livelihoods

An SEI research project in the Chindwin River Basin in Myanmar is improving water quality monitoring and water resource management by helping to establish a new local institution to manage the river for all users.

Failing water quality in the Chindwin

The Chindwin River is the largest tributary of the Ayeyarwady River. One of the major sustainable development challenges in the basin is the decline in water quality. The Chindwin River and its tributary, the Uru, are a crucial source of water-use for the local communities living in the basin, from drinking, bathing and household use to raising livestock and irrigating fields.

As part of the Chindwin Futures project, in collaboration with Myanmar government departments and scientists from Myanmar Environment Institute, SEI initiated water quality tests in 17 sites along selected locations in the river.

The tests showed that some drinking-water wells close to the rivers are contaminated with bacteria. In the Uru and Chindwin Rivers themselves, the tests found high levels of mercury in the wet season.

Local livelihoods at risk

Local communities are most affected by the deterioration in water quality. For many people in the basin, access to, and availability of water, are daily challenges even as they are dependent on the river and groundwater sources for their livelihoods. A warming climate is also making it more difficult to maintain farming livelihoods.

In Myanmar as a whole, 26% of the population live with less than USD 1.25 a day. But the situation for farming families, and rural populations in general, is even worse. In rural areas, 29% live below the national poverty line. In Myanmar, per capita farm earnings average around USD 200 per year, or about one-half to one-third of the levels in other countries in the Mekong Region.

To alleviate poverty among farmers, the Myanmar Development Poverty Alleviation Action Plan was established.

The Chindwin Futures project surveyed 600 households in Homalin, Kani and Monywa townships in the upper, middle and lower Chindwin, respectively. Through this research, SEI discovered that poverty levels are 33% in farm households and 55% for landless households.

SEI's livelihood surveys also showed that the stresses of water insecurity, climate change and poverty are expected to worsen in the coming decades.

Engaging with Myanmar's planners and parliamentarians

To address these challenges, SEI is supporting the establishment of the Chindwin River Basin Organisation (RBO) to improve the management of water resources and improve policies and planning for development of the river basin.

The RBO also aims to build public awareness and education about river conditions and integrated water resource management. It also coordinates training in local communities to monitor water resources so that local livelihoods are supported.

Our efforts to build the RBO have required the close participation of more than 100 elected parliamentarians from the Sagaing Region, along with scientists, and representatives of government agencies, civil society, private sector, and local communities. We have also built bridges with officials from Thailand's Pollution Control Department and Department of Water Resources, to provide expertise on water quality monitoring and river basin management.

After four years of work, the Sagaing Regional Government and other stakeholders endorsed the creation of the RBO. The regional government also agreed to allocate resources for the Chindwin RBO's Secretariat. The RBO members will represent all the key sectors in the Chindwin Basin while SEI will act as an adviser. One of the tasks of the RBO will be to continue monitoring water quality in the Chindwin Basin.

The Chindwin RBO ... illustrates how SEI builds partnerships to bridging science and policy while serving the needs of local people.

– Chayanis Krittasudthacheewa, Programme Leader, Chindwin Futures, SEI

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 our 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 is a distributed institute, with centres and offices in Bangkok (Thailand), Boston, Davis and Seattle (US), Oxford and York (UK), Stockholm (Sweden), Tallinn (Estonia), and Nairobi (Kenya).

The SEI Foundation includes SEI HQ, the SEI Stockholm Centre, the SEI Asia Centre, the SEI Africa Centre and the subsidiary SEI Oxford Office Ltd (registered in UK under company No. 4404220, not consolidated). The global institute also includes the SEI Tallinn Centre (The Estonian Institute for Sustainable Development, established in 1992 and registered in Estonia as an independent non-profit foundation with reg. No. 90000966), the SEI US centre (Stockholm Environment Institute US, Inc. registered 2006 in Massachusetts with EIN 20-4659308 as a 501c3 non-profit organization) and the SEI York centre (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 organisation number 802014-0763.

SEI carries out integrated policy-oriented research on environment and development issues, tackling overarching systems challenges like climate change, energy systems, air pollution, water resources, sanitation, disaster risk reduction, gender and social equality, and sustainable consumption. With a systems approach our research topics extend across sectors and issues, and from the global to local scale. The environment–development interactions and interdependencies are at the centre of SEI's work. SEI's research is explicitly designed to be useful and useable in policy, planning and other decision-making processes surrounding current sustainable development challenges, and to build institutional capacity among the actors involved in those processes.

Key developments during the year

2017 has been a year of continued organic growth of the institute, and a net total of 15 employees have been added to our organisation during the year, adding up to a total of 232 employees across SEI. This growth reflects our increasing impact and funding levels.

The annual core funding support from the Swedish Government and the five-year agreement with Sida jointly form the basis for our operations. These core resources, which constituted close to 40% of the total turnover, 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 proactively set the agenda. It also enables us to adapt our programmes to respond to emerging challenges around the world.

In 2017, the government core support amounted to SEK 32 million, out of which SEK 9 million were dedicated to co-funding. This funding enables SEI to enter into research programmes that require matching funds, while at the same time strengthening SEI centres' financial sustainability.

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

During 2017, we have worked intensively to prepare the establishment of the eighth (8th) SEI research centre in Bogotá, Colombia. The centre, which launches formally in March 2018, has a regional scope across Latin America, with initial research foci on, *inter alia*, the implementation of the 2030 Agenda, water resources and sanitation, and sustainability in commodity supply chains. We are thankful for the strong support from both the Colombian government, including its embassy in Stockholm, and the Swedish Government, in making this exciting opportunity a reality.

The total revenue of the SEI Foundation in 2017 was SEK 201 million, with a net income of SEK 1.5 million.

The SEI Board met four times in 2017. The SEI Science Advisory Council (SAC), which meets once a year, went through a partial renewal, with six new members joining the Council in October, six members leaving and five members staying on for another term.

In terms of internal governance, a reform was carried out during 2017 on the Research Directorate, SEI's global research leadership function. The four global research themes, that had been developed for the previous strategy period, were judged to have played out their role, and were phased out. Resources thus saved are now invested in new activities related to, for example, synthesis work, assessments and horizon scanning.

In recent years, SEI has held a high rank on the Global Go To Think Tank Index in the category of environmental policy. The index is compiled annually by the University of Pennsylvania's Think Tanks and Civil Societies Program. For 2017, we have received the ranking of No. 2.

The SEI Strategy outlines the strategic directions

Reaching the objectives and goals
This Annual Report presents examples of the research activities and outcomes of the SEI global institute and provides evidence of how the SEI Foundation fulfils its objectives according to its statutes:

> "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 SEI Foundation has in 2017 contributed to reaching the objectives in five main ways:

- Through initiatives and projects where specific areas, issues and questions were addressed.
- Through cooperation and interaction with Swedish and other government authorities (e.g. the Ministry of Environment and Energy, Ministry of Foreign Affairs, Sida, EU, UN agencies, and multilateral

development organisations) as well as with a range of other institutions, agencies and the private sector.
- Through increasing cooperation within the SEI global organisation and through strengthening of research and policy capacities and competences in key fields.
- Through various forms of outreach, including publications (e.g. scientific, policy oriented, and in the media), conferences and seminars, webinars, and social media.
- Through capacity development, in the form of training and dedicated events (not least linked to SEI's tools) and through capacity development integrated in initiatives and projects.

The objectives as described in the statutes are elaborated in the SEI Strategy, which is the main guiding document for the institute, and operationalised through the annual work plans for each SEI centre. The current SEI Strategy 2015–2019 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, organisations 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.
- **Organisation and finance:** To be a diverse, attractive, and financially robust organisation where the best researchers and professionals can thrive.
- **Monitoring and learning:** To be a learning organisation that – alongside our partners – continuously takes stock and learns from experience to deliver ever better results.

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

SEI has continued to invest institutional resources in research on key issues around sustainable development that the organisation is particularly well placed to address. 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 2017, SEI organised, for the fifth time, the annual SEI Science Forum at SEI Asia in Bangkok, Thailand. The Forum, which is held annually, alternating between Stockholm and one of our centre locations, provides an opportunity to build relationships between researchers from different centres, develop new ideas, strengthen our engagement with key partners and audiences in the area, but also carry out necessary planning and management meetings.

Key developments after the year end

On 15 January 2018, Johan Kuylenstierna resigned as Executive Director. Måns Nilsson was at this time appointed as Acting Executive Director while the recruitment process for a new permanent Executive Director is ongoing.

On 20 March 2018, SEI Latin America was launched in Colombia, with a seminar and reception at the Swedish Ambassador's Residency in Bogotá. David Purkey, previously leading the SEI US Water Group, has been appointed Centre Director.

The new website (www.sei.org) and the new visual identity, including new logotype, was launched on 19 March 2018.

Expected future developments

The outlook for 2018 is a year of continued financial stability and some growth in terms of number of staff. The core support from the Swedish Government through Formas is at the same level as in 2017. During 2018, SEI will procure an external consultant to carry out an evaluation of the effectiveness of SEI's work. The results will be used for internal learning and feed into the preparations to develop SEI's next strategy (tentatively for the period 2020–2024). These preparations will also start during 2018; an effort to be led by the incoming Executive Director, supervised by the Board and conducted in collaboration with colleagues and partners across SEI.

Financial overview

Key figures for the SEI Foundation	2017	2016	2015	2014	2013
Total revenue (million SEK)	201.3	161.3	133.3	121.2	107.9
Net income (million SEK)	1.5	1.8	1.7	1.7	3.1
Total assets (million SEK)	103.8	106.7	83.5	64.4	67.0
Equity (million SEK)	19.8	18.3	16.5	14.8	13.1
Equity ratio (%)	19%	17%	20%	23%	20%
No. of staff at end of period	141	123	117	98	87

Environmental impact

As a research institute with a global presence, engaging with our international partners and stakeholders is critical to the success of our projects. Some travel is therefore unavoidable in order to effectively fulfil our mission, to carry out data gathering field research, and to build capacity among partners in developing countries.

We strive to minimise our environmental footprint while successfully accomplishing our work. We monitor, report and take action to minimise our carbon footprint, and reduce waste and overall resource use. The first step in reducing carbon emissions is to measure and publicly report those emissions. In 2015 SEI Foundation flight emissions totalled 530 tonnes, while in 2016 it was 517 tonnes CO_2e. This is a reduction of about 2.5%. Over the same period, employee numbers grew about 5%, from 117 to 123.

Year	Emissions from travel (tonnes CO_2e)	Kilometres travelled
2015	530	3.2 million
2016	517	3.4 million
2017	561	3.7 million

In 2017, the emissions increased to 561 tonnes CO_2e, an increase of 8.5% compared to 2016 emissions. This relates to a growth in employee numbers of 6.9%.

The SEI HQ building in Stockholm has gold LEED certification (Leadership in Energy and Environmental Design). In 2016, water consumption was 371 m^3 and energy consumption 295 104 kWh. In 2017, water consumption was 429 m^3 and energy consumption 265 666 kWh. All energy was supplied from renewable sources.

We are tackling our travel emissions by:

- Reducing our carbon emissions from travel by assessing the need for travel and switching to more sustainable modes of transport
- Making virtual meeting equipment available in almost all meeting rooms and on personal computers
- Continuing to invest in virtual meeting technology
- Shifting meetings to virtual formats whenever possible.

Human resources

SEI has introduced a performance management process, including SMART target setting, in order to support development. Two centres (Stockholm and Asia) have used the process for all employees.

SEI has developed an SEI Leadership Model and has implemented this in the whole organisation. In all, 22 Directors and Managers have been assessed towards the new leadership model during the year to enhance management development. The model is now a vital part of all strategic recruitments and a uniformed advertisement has been distributed to the whole organisation.

An annual Recruitment Dashboard, including global KPIs, has been introduced to the organisation, with monthly follow-up and reporting.

The first global mentorship programme of 50 participants from all centres finalised the program in early spring 2017. The programme was evaluated to be a success and a new programme will be delivered during 2018.

SEI completed the first global report regarding SEI Equity and Gender to the SEI Board, focusing on securing the implementation of the new policy and the results so far.

Significant risks and uncertainties

The main risk affecting SEI's sustainability is the relatively high dependence on funding provided by the Swedish Government, while recognising that the increased collaboration with the Swedish Government is also a strength. SEI is using the core funding to leverage additional, external support. This is clearly articulated as a goal, not least for the SEI Initiatives.

The potential negative impacts of Brexit continue to be closely monitored, in particular the risk that SEI centres based in the UK may not be able 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.

Risks related to project performance are addressed in regular operations through appropriate risk management and quality assurance procedures in project planning and implementation.

Appropriation of results

Appropriation of accumulated results (amounts in SEK)	
The equity of the SEI Foundation at the beginning of 2017	18 276 067
Net income for the year 2017	1 544 209
Final balance	**19 820 277**

Financial statements

Income statement

Amounts in SEK	**Note**	**2017**	**2016**
Government grant		32 000 000	30 000 000
External project funding	2	168 361 233	130 617 723
Sundry income	3	940 800	715 397
Total revenues		**201 302 034**	**161 333 120**
Personnel costs	4	-83 260 251	-77 364 640
Travel costs		-1 501 825	-1 219 386
External costs in projects	5	-96 822 874	-66 872 271
Other costs	5, 6	-16 567 629	-13 607 081
Depreciation	7	-1 298 034	-1 204 264
Operating income		**1 851 421**	**1 065 478**
Result from financial investments			
Interest income and similar profit items	8	391 811	760 238
Interest expense and similar loss items	8	-274 381	-2 004
Income before tax		**1 968 850**	**1 823 713**
Tax on the result for the year	9	-424 641	–
Net income		**1 544 209**	**1 823 713**

Balance sheet

	Note	2017	2016
Assets			
Fixed assets			
Tangible and intangible fixed assets		2 544 919	1 747 110
	7	2 544 919	1 747 110
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		**3 796 358**	**2 998 549**
Current assets			
Current receivables			
Accounts receivable, customers		4 308 556	2 204 683
Other receivables	12	2 921 663	1 595 544
Prepaid expenses and accrued income	13	6 643 510	4 696 579
		13 873 729	8 496 806
Cash and bank balances		**86 098 698**	**95 193 590**
Total Current assets		**99 972 427**	**103 690 396**
TOTAL ASSETS		**103 768 785**	**106 688 945**

	Note	2017	2016
Equity and liabilities			
Equity			
Balance brought forward		18 276 067	16 452 355
Net income for the year		1 544 209	1 823 713
		19 820 277	**18 276 067**
Current liabilities			
Advance payments for work in progress	14	51 997 983	70 325 836
Accounts payable, suppliers		6 745 674	2 145 349
Liabilities, SEI centres/affiliated companies abroad	15	8 271 024	3 239 269
Other liabilities		7 475 628	6 345 607
Accrued expenses and deferred income	16	9 458 199	6 356 817
		83 948 508	88 412 878
TOTAL EQUITY AND LIABILITIES		**103 768 785**	**106 688 945**

Cash flow statement

	Note	2017	2016
Net income from operations		1 544 209	1 823 713
Non-cash items (depreciation)	7	1 298 034	1 204 264
Net cash generated (used) in operating activities before changes in operating assets & liabilities		**2 842 243**	**3 027 977**
Increase (-) / decrease (+) in short-term receivables		-5 376 923	-490 853
Increase (+) / decrease (-) in short-term liabilities		-4 464 369	21 320 285
Cash flow before investments		**-6 999 049**	**23 857 409**
Investing activities			
Deposited as collateral with the landlord	11	–	–
Capital expenditures (acquisition of equipment)	7	-2 095 843	-629 461
Proceeds from the sale of equipment		–	–
Net cash provided by investing activities		**-2 095 843**	**-629 461**
Net cash flow after investing & financing activities:		**-9 094 892**	**23 227 948**
Cash at beginning of year		**95 193 590**	**71 965 642**
CASH AT END OF YEAR		**86 098 698**	**95 193 590**

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 recognised 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 recognised as an expense in full. If there is significant uncertainty regarding payment or associated costs, no revenue is recognised.

Fixed assets
Fixed assets are recognised 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 recognised 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%. Income tax was in the previous year not recognised in the income statement as it was offset by utilisation of loss carryforwards from previous years.

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 functional currency at the exchange rate prevailing at the balance sheet date. Exchange differences arising on translation are recognised 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 recognised 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 judgements, 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:	2017	%	2016
Swedish International Development Cooperation Agency (Sida)	57 563 132	34.19%	58 712 917
The Swedish Foundation for Strategic Environmental Research (Mistra)	24 096 931	14.31%	12 257 987
The Swedish Research Council Formas	13 552 416	8.05%	6 168 819
Bill & Melinda Gates Foundation	9 810 576	5.83%	2 965 055
European Commission	7 990 410	4.75%	7 578 444
Gordon and Betty Moore Foundation	5 199 717	3.09%	–
Climate & Clean Air Coalition (CCAC) via UNEP	4 692 962	2.79%	4 112 103
The Swedish Environmental Protection Agency	3 093 219	1.84%	3 173 683
Swedish Energy Agency	3 061 806	1.82%	5 466 078
DFID via WYG International Limited	2 565 179	1.52%	528 829
Global Environment Facility via WWF	2 099 319	1.25%	–
Rights and Resources Group	1 991 465	1.18%	–

External project funding received from the following sources:	2017	%	2016
United Nations (UNEP, UNESCO, UNOPS, UNU, UNISDR, FAO)	1 813 699	1.08%	1 226 466
Vinnova (Sweden's innovation agency)	1 778 745	1.06%	–
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	1 611 846	0.96%	752 487
Gordon and Betty Moore Foundation via TNC	1 485 847	0.88%	–
Hugo Carlssons Stiftelse via Jernkontoret	1 242 222	0.74%	782 157
Sida via Swedish University of Agricultural Sciences (SLU)	1 209 758	0.72%	625 188
USAID via ADPC	1 100 492	0.65%	607 708
The Swedish Environmental Protection Agency via SCB	1 086 726	0.65%	868 457
Swedish Ministry of Environment and Energy via Formas	1 000 000	0.59%	1 000 000
Blue Moon Fund	937 716	0.56%	1 260 681
The Swedish Research Council (Vetenskapsrådet)	857 995	0.51%	1 144 834
World Bank	851 407	0.51%	384 391
Marianne and Marcus Wallenberg Foundation	794 443	0.47%	151 837
FONERWA via Albertine Rift Conservation Society (ARCOS)	694 262	0.41%	257 596
Rockefeller Foundation via UN Women	655 061	0.39%	666 420
Swedish Energy Agency via KTH	647 337	0.38%	–
USAID via SEI US	638 684	0.38%	–
SNV Netherlands Development Organization	628 541	0.37%	535 988
Nordic Council of Ministers via Syke	599 022	0.36%	–
Swedish Ministry for Foreign Affairs	564 410	0.34%	125 172
Government Offices of Sweden	544 325	0.32%	–
Nordforsk	535 465	0.32%	874 745
Global Resilience Partnership via University of Sydney	489 776	0.29%	179 026
DFID via Oxford university	485 349	0.29%	93 028
World Wide Fund for Nature (WWF)	471 420	0.28%	49 200
The Confederation of European Forest Owners (CEPF)	466 741	0.28%	–
International Center for Biosaline Agriculture (ICBA)	451 779	0.27%	973 687
Lancaster University	447 922	0.27%	–
European Forest Institute	444 883	0.26%	1 465 741
The Nature Conservancy	413 425	0.25%	893 356
Swedish Embassy in Bangkok	401 876	0.24%	147 325
Swedish Agency for Marine and Water Management	356 086	0.21%	–
European Environment Agency	319 530	0.19%	196 313
Swedish Civil Contingencies Agency (MSB)	300 710	0.18%	864 483
ASEAN Secretariat	293 765	0.17%	156 061
US Department of Energy	246 782	0.15%	123 485
BAC & Company	239 138	0.14%	–
Institute for Advanced Sustainability Studies (IASS)	237 257	0.14%	258 450
International Union for Conservation of Nature (IUCN)	229 790	0.14%	–
GFA Consulting Group GmbH	229 680	0.14%	376 635
Swedish Meteorological and Hydrological Institute (SMHI)	217 819	0.13%	230 304

External project funding received from the following sources:	2017	%	2016
USAID via PACT	203 085	0.12%	664 027
Oxfam	193 700	0.12%	–
Center for International Climate Research (CICERO)	174 525	0.10%	94 260
Adelphi GmbH	164 450	0.10%	–
Netherlands Ministry of Infrastructure and the Environment via MCI	161 825	0.10%	631 497
Swedish Chemicals Agency	154 625	0.09%	–
Institute for Global Environmental Strategies	138 529	0.08%	–
HYBRIT	126 875	0.08%	–
Technical University of Denmark (DTU)	124 560	0.07%	–
McKinsey & Company	122 901	0.07%	222 677
PICO Eastern Africa	114 375	0.07%	–
The Swedish Research Council Formas via Lund University	110 615	0.07%	175 087
EED Advisory Ltd via SEI US	107 434	0.06%	58 591
Riksbankens Jubileumsfond	105 719	0.06%	2 158 892
Asia-Pacific Network for Global Change Research (APN)	98 045	0.06%	180 853
Leading Integrated Research for Agenda 2030	79 150	0.05%	–
The Overseas Development Institute (ODI)	75 600	0.04%	116 988
USAID via Winrock International	68 779	0.04%	–
Nordic Environment Finance Corporation	68 027	0.04%	–
Global Canopy Foundation	59 810	0.04%	–
ESPA via Tokyo university	57 936	0.03%	80 640
Sida via The Swedish Patent and Registration Office	52 692	0.03%	–
UCL Consultants Ltd	42 684	0.03%	157 959
SINTEF Energi AS	41 782	0.02%	518 247
Other	1 974 648	1.17%	7 322 868
Total	**168 361 233**	**100.00%**	**130 617 723**

Note 3 Sundry income

	2017	2016
Reimbursement of travel & other expenses	236 618	180 182
Rent & associated costs recovered and small service contracts	699 781	429 703
Miscellaneous	4 401	105 512
Total	**940 800**	**715 397**

Note 4 Employees and personnel expenses

Average number of employees (FTE)	**2017**	**2016**
Sweden	76	72
(of which men)	51%	49%
Thailand	26	24
(of which men)	45%	52%
Kenya	10	10
(of which men)	36%	46%
Total	**113**	**106**
(of which men)	50%	50%

Board of Directors and Management	**2017**	**2016**
Board of Directors, number of members	7	7
(of which men)	43%	43%
Management Team, number of members	14	13
(of which men)	57%	46%

Salaries, other remunerations and social fees	**2017**	**2016**
To the Board Members and Executive Director	1 213 965	1 219 840
To other employees	58 049 407	54 064 138
Total	59 263 372	55 283 978
Social fees	23 876 358	21 186 030
(of which pension costs)	(7 569 086)	(6 342 934)

SEK 325 652 (previous year 518 220) of the pension costs relate to the Executive Director

Salaries and other remunerations by country	**2017**	**2016**
Sweden	42 009 569	39 734 735
Thailand	12 420 754	10 683 248
Kenya	4 833 049	4 865 996
Total	59 263 372	55 283 978

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

Note 5 Audit fees

	2017	2016
Audit fee Mazars SET	170 335	107 440
Consultant's fee project audits (Mazars SET & others)	169 288	48 813
Total	**339 623**	**156 253**

Note 6 Leasing agreements

Leasing costs	**2017**	**2016**
Office premises Stockholm	4 883 706	4 696 262
Office premises Bangkok	555 763	526 036
Office premises Nairobi	399 331	292 142
Copy machines	67 197	62 580
Total	**5 905 997**	**5 577 020**

Additional information on leasing agreements

Office premises Stockholm
Base office rent is SEK 3 200 000 per year.

Total costs in agreement include heating, cooling, waste disposal, electricity, archive rent, and property tax. The agreement includes a clause on index regulation, and is valid until 31 December 2018.

At 2017-12-31 contracted nominal future payments are SEK 3 833 908 excl. VAT and index adjustment.

Office premises Bangkok
Rent is THB 2 105 400 per year.
The agreement is valid until 30 September 2019.
At 2017-12-31 contracted nominal future payments are THB 3 859 050 (= SEK 974 410).

Office premises Nairobi
Rent is USD 31/month/sqm for a current total space of 133 sqm.
The agreement is valid until 30 June 2018.
At 2017-12-31 contracted nominal future payments are USD 24 738 (= SEK 203 648).

Office premises Bogotá
Rent is USD 198/month/sqm for a current total space of 145 sqm.
The agreement is valid until 30 November 2022. At 2017-12-31 contracted nominal future payments are USD 141 304 (= SEK 1 163 246) excl. index adjustments.

Copy machines
New agreement from December 2017, SEK 3 930 per month excl. VAT.
The agreement is valid until November 2020.
At 2017-12-31 contracted nominal future payments are SEK 137 550 excl. VAT.

Note 7 Fixed assets

	2017	2016
Gross value		
Opening balance	9 175 025	8 545 564
Acquisitions	2 095 843	629 461
Sale	–	–
Discarded	–	–
	11 270 867	9 175 025
Accumulated depreciation		
Opening balance	-7 427 914	-6 223 650
Sale	–	–
Discarded	–	–
Depreciation charged	-1 298 034	-1 204 264
	-8 725 948	-7 427 914
Net book value	2 544 919	1 747 110

Note 8 Result from financial investments

	2017	2016
Interest revenue and expense		
Interest revenue	105 596	1 811
Interest expense	-4 810	-2 004
	100 786	-193
Exchange rate gains and losses		
Exchange rate gains on balance items	286 215	758 427
Exchange rate losses on balance items	-269 572	–
	16 643	758 427

Note 9 Tax

	2017	2016
Current tax	**-424 641**	**–**
Deferred tax	**–**	**–**
Total	**-424 641**	**–**
Theoretical tax		
Income before tax	**1 968 849**	**1 823 713**
Tax at current tax rate 22%	**-433 147**	**-401 217**
Reconciliation of effective tax		
Effect of non-deductible expenses	**-161 231**	**-176 237**
Effect of tax-exempt income	**–**	**–**
Utilisation of tax value of loss carryforwards not previously recognised	**169 737**	**577 454**
Adjustment for taxes pertaining to previous years	**–**	**–**
Total	**-424 641**	**0**

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 2018-12-31). 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

	2017	2016
Preliminary tax paid	1 979 600	973 344
Other receivables	942 063	622 200
Total	**2 921 663**	**1 595 544**

Note 13 Prepaid expenses and accrued income

	2017	2016
Prepaid rent	1 204 551	1 161 853
Advance payments to project partners	4 243 562	2 511 979
Other prepayments	1 195 397	1 022 747
Total	**6 643 510**	**4 696 579**

Note 14 Advance payments for work in progress

	2017	2016
Work in progress, costs incurred	-438 060 581	-379 490 144
Accrued interest revenue on advances (specified per project)	44 295	98 482
Deductible: advance payments	490 014 269	449 717 499
Total	**51 997 983**	**70 325 836**

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 1 219 343 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, and SEK 9 million in 2017) and allocated to projects but not yet fully utilised according to the principles of accrual.

Note 15 Liabilities SEI centres/affiliated companies abroad

	2017	2016
SEI Tallinn	151 594	161 201
SEI US	4 667 304	2 490 602
SEI Oxford	3 452 126	587 466
Total	**8 271 024**	**3 239 269**

Note 16 Accrued expenses and deferred income

	2017	2016
Accrued holiday pay	2 627 762	2 747 680
Accrued salaries and social charges	3 833 712	2 143 652
Sundry accruals	2 996 725	1 465 484
Total	**9 458 199**	**6 356 817**

Note 17 Pledged assets and contingent liabilities

Pledged assets	2017	2016
Floating charge	1 000 000	1 000 000

Contingent liabilities

According to the agreement* signed with The University of York, describing the cooperation 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. There was a shortfall for the SEI York Centre in the University of York latest fiscal year, ending 31 July 2017, amounting to GBP -109 000. Part of this deficit (SEK 700 000) was recognised as a cost in the SEI Foundation accounts for 2016, and the remainder has been recognised as a cost in the SEI Foundation accounts for 2017.

*Agreement valid for an initial period of 01 August 2016 – 31 July 2017, and continuing thereafter unless and until terminated by one party giving to the other party not less than 12 months' notice.

Stockholm 2018-03-23

Andreas Carlgren
Vice–Chair

Stephen F. Lintner

Ingrid Petersson

Allan Polack

Teresa Ribera

Astrid Söderbergh Widding

Kerstin Niblaeus
Chair

Our audit report was submitted 2018-04-19

Håkan Sten
Authorised Public Accountant

Fredrik Gunnarsson
Vetenskapsrådet (The Swedish Research Council)

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 2017. The annual accounts of the foundation are included in the printed version of this document on pages 42-59.

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 2017 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. 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 error, 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 error 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 are 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 2017.

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 19/4 2018

Håkan Sten
Authorized Public Accountant

Fredrik Gunnarsson
Lay Auditor

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We connect science and decision-making to develop solutions for a sustainable future for all.

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