

Centre for Development and Environment

ANNUAL REPORT 2019



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A word from the President of CDE's Board



Heinzpeter Znoj
President of CDE Board

In a matter of weeks, the world has changed as humanity strives to contain the coronavirus pandemic. Quarantine measures have forced us to suspend much of our social, cultural, and economic activities. While the eventual success of these restrictions looks good at the moment, some of them will remain in place longer. Indeed, we face a multidimensional crisis that will set the political agenda for many months or years. And if we take an honest "big picture" view: we face a worsening of global crises that existed before this pandemic.

For let us not forget that overcoming the pandemic and its immediate consequences still leaves us with plenty of global challenges – in particular those that the SDGs sought and seek to tackle. Notably, efforts to kickstart our economies after the pandemic bear risks of authorities and vested economic interests overriding the SDGs or reinterpreting them in ways that render them meaningless.

At the same time, the remarkably swift global response to the pandemic shows that humanity is capable of action in the face of imminent threats. But we should be wary of professed goals of getting back to "normal" as quickly as possible. We must instead maintain the SDGs and the values they incorporate as our compass for current and post-coronavirus policies. Let us not allow the pandemic to become another instance of "shock therapy" used to justify authoritarian rule, neglect of human rights, and further erosion of labour rights and decent livelihoods worldwide – whether among small farmers, mineworkers, or service sector employees.

Today, CDE is called upon to contribute the critical knowledge needed for sustainable development. Such knowledge appears more important than ever.

CDE is, itself, in a process of change. Its director, Prof. Peter Messerli, leaves the centre as of May to become the founding director of the Wyss Academy for Nature. In the name of the CDE Board, I wish to thank him for his outstanding commitment to CDE and his extraordinary achievements within the centre and beyond. I wish him all the best at the helm of the Wyss Academy, and look forward to fruitful cooperation between his old and new homes.

The rectorate of the University of Bern has selected a team of three co-directors to lead CDE in the years to come. Prof. Thomas Breu, previously co-director with Prof. Messerli, is the new executive director and in charge of CDE's "Research" portfolio; Dr. Sabin Bieri, previously Head of the Socio-Economic Transitions Cluster, is now CDE co-director in charge of its "Capacity" portfolio; PD Dr. Andreas Heinemann, previously Head of Regional Cooperation, completes the team of CDE co-directors and now oversees its "Impact" portfolio.

In the name of the CDE Board, I wish the new team of co-directors the stamina, creativity, and wisdom needed to lead CDE into the future.

A handwritten signature in blue ink, appearing to read 'H. Znoj'.

Heinzpeter Znoj, President of the CDE Board

CDE facts and figures*

Institution	Centre of competence of the University of Bern
Mandate	CDE's commitment is to advance innovative approaches in research and education that are appropriate for transforming highly complex sustainability problems into widely supported sustainable development pathways.
Directors	Prof. Dr. Peter Messerli, Prof. Dr. Thomas Breu
Staff members	100 from around 25 disciplines
Annual turnover	CHF 18,520,000 (for details see pp. 21–22)
Number of ongoing projects	79
Regions	CDE oversaw activities in 40 countries worldwide in 2019; key regions include the Horn of Africa, East Africa, mainland Southeast Asia, the Central Andes, and Switzerland.
Courses of study	BSc Minor in Sustainable Development MSc Minor in Sustainable Development PhD Programme: International Graduate School (IGS) North-South, a graduate school of the Universities of Basel, Bern, Lausanne, and Zurich CAS in Sustainable Development (in German)
Number of students	BSc: 402 from 21 disciplines MSc: 51 from 11 disciplines IGS North-South: 121 in total, including 37 enrolled at international partner institutions and 44 enrolled at the University of Bern

* As at 31 December 2019

Looking back and looking ahead

Peter Messerli, Thomas Breu



Peter Messerli



Thomas Breu

In 2019, CDE celebrated its 30th anniversary. The occasion made one thing clear: the topic of sustainable development has definitely outgrown its original niche.

Globally, there are many worrying trends with regard to sustainability. In addition to man-made global warming, marked political polarization, and dramatic loss of biodiversity, there is massive underlying inequality that does not receive enough media attention. Just to name a couple figures: the world's 2,153 billionaires currently own more wealth than 60% of the global population; and the 22 richest men alone have more wealth than all the women in Africa put together.

And at the moment we write this report, we must also mention the extremely fragile situation in terms of public health. Even leaving aside the coronavirus pandemic, there is urgent need for action on many fronts: maternal mortality, for example, is still alarmingly high, with over 800 women dying every day – mainly in global South countries. At the same time, over a million people die every year from diarrhoeal diseases, simply because they lack access to medicine and basic medical treatment.

The future is now!

Nevertheless, there were rays of hope in 2019. The climate movement, for example, eclipsed all expectations, finally becoming a force to be reckoned with. Also cause for hope was and is the fact that the thinking behind the UN Global Sustainable Development Report – encapsulated by the motto “The future is now!” – has attracted increasing attention in science, business, civil society, and, in part, public administration. Both of these developments – the demands of youth climate activists and the urgency of sustainable development – have found expression in the new vision of the EU: that of a European Green Deal.

If the issue of sustainable development is higher on the agenda than ever before, then it's thanks to the combined efforts of many actors working towards this goal over the years – among them CDE.

In the global spotlight

The role played by CDE in sustainability science and debates was on display, for instance, in May 2019, when the first report of the World Biodiversity Council (IPBES) was published. The most comprehensive assessment of the state of biodiversity and ecosystem services to date, the report was co-authored by CDE Associate Director Andreas Heinimann and co-managed by CDE Board Member Markus Fischer.

Our centre's contribution to international sustainability debates was also evidenced by the first Global Sustainable Development Report (GSDR), which CDE Director Peter Messerli co-wrote and presented at the UN General Assembly in September 2019. Aimed equally at policymakers, society, business, and science, the report clearly articulates where and how needed transformations should



be tackled at the dawn of the UN Decade of Action – and it offers decisive ways of closing the yawning gap between knowledge and action.

Participation in major international events

In addition, CDE was involved in a variety of globally important events. In April 2019, 600 leading researchers came together for the Global Land Programme's Open Science Meeting, which was organized by our centre. Participants explored key questions such as: How should land be used to tackle global challenges? How can we address issues of land tenure, conflict, power, food systems, and soil degradation to meet the needs of people and communities?

Land issues were also at the heart of the 14th Conference of the Parties to the UN Convention to Combat Desertification (UNCCD) in New Delhi. Here, CDE researchers presented new insights from research on sustainable land management (SLM), new tools and methods for SLM and land degradation neutrality, and lessons learned from SLM activities with partners around the globe. They also represented Switzerland as part of the UNCCD's Committee on Science and Technology.



Cause for hope in 2019: the thinking behind the UN Global Sustainable Development Report – encapsulated by the motto “The future is now!” – has attracted increasing attention in science, business, civil society, and, in part, public administration. Photo: Manu Friederich

A CDE team led by Anne Zimmermann, president of the Copernicus Alliance, worked with the University of Bern to put together a large part of the Alliance’s first-ever online conference. This network of European universities, organizations, and individuals seeks to unite people and institutions committed to transforming higher education towards sustainable development.

Pushing forward Switzerland’s sustainability debate

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Last but not least, we were very actively engaged in Switzerland at the interface of science, practice, and politics – especially because awareness of the urgent need for transformation remains in its infancy in many places here. We offered our scientific perspective on the Swiss Federal Council’s new dispatch on international cooperation and, together with our partners, made a substantial contribution at numerous events to advancing the sustainability debate in politics, society, and science.

From pioneering work to the mainstream

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But back to our 2019 anniversary. Thirty years ago, we were pioneers in taking up the challenge of anchoring sustainability in research, teaching, and policy advising. Today, we find ourselves right in the mainstream – having reached a few milestones, too.

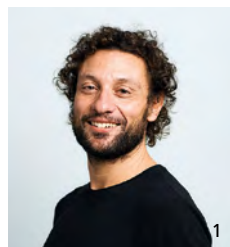
With a mandate from the University of Bern, for example, we managed to integrate the topic of sustainability in the curricula of all faculties. In sustainability research, we have made meaningful contributions regarding theories of change and developed inter- and transdisciplinary approaches to analysis and transformation. And together with our research and implementation partners in Africa, Asia, and Latin America, we have laid the ground for new research partnerships on behalf of continent-spanning, forward-looking solutions that work in practice.

New beginnings with the Wyss Academy for Nature

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Finally, last year we accomplished one more major milestone together with other world-leading sustainability scientists at the University of Bern, and with generous support from the University and the Canton of Bern: namely, the founding of the Wyss Academy for Nature. In December 2019, a corresponding agreement was signed by Bernese entrepreneur and patron Hansjörg Wyss, the University, and the Canton of Bern.

With that, and following an intensive pilot phase, the foundation was established for a cutting-edge global research and practice centre at the intersection of nature and people. The Wyss Academy for Nature, like CDE before it, will blaze new trails. Its goal is to create innovative solutions for the protection and sustainable use of nature, to test these in practice, and to expand what works to other regions of the world.

Programme highlights



Social inequality and the environment: article published in PNAS

"More equal distribution of income, wealth, and land ownership is not only fairer, but also an effective means of improving environmental protection." So concludes an article by CDE researcher Graziano Ceddia published in the *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* in January 2019. The study entitled "The impact of income, land, and wealth inequality on agricultural expansion in Latin America" shows that social inequality in Latin America promotes the destruction of tropical forests.

tinyurl.com/CDE-ceddia



Book launch: Shaping Sustainable Socio-Ecological Landscapes in Africa

Researchers on the Water and Land Resource Centre project have been working with the authorities, stakeholders, and users in Kenya and Ethiopia to develop locally adapted models for sustainable land and water management as well as conflict resolution. Experiences from the past 40 years have been summarized in a book launched in March 2019, *Shaping Sustainable Socio-Ecological Landscapes in Africa*.

tinyurl.com/sustainable-landscapes



CDE researcher Julie Zähringer wins Prix Schläfli 2019 in Geosciences

On 21 May, CDE researcher Julie Zähringer was awarded the Prix Schläfli 2019 in Geosciences for her dissertation at the University of Bern. Drawing on satellite images and around 1,200 interviews, she analysed changes in land use around protected areas in Madagascar. This enabled her to show that shifting cultivation and the associated slash-and-burn practices in the region have not declined, despite a range of sustainability measures aimed at reducing them. She attributes this to economic constraints that had not before been studied in detail. Read the portrait of a scientist who believes researchers should strive for social relevance.

tinyurl.com/CDE-zaehringer



Key theoretical contributions to research for sustainable development

In June, CDE researchers published the article "Theories of change in sustainability science: Understanding how change happens" in a Special Issue of the journal *GAIA* entitled *Research for Sustainable Development Goals*. This was followed in October by their article on "Transdisciplinary co-production of knowledge and sustainability transformations: Three generic mechanisms of impact generation" in *Environmental Science and Policy*. These articles represent major theoretical inputs to the scientific debate on research for sustainable development.

tinyurl.com/CDE-gaia and tinyurl.com/CDE-sciencedirect

JANUARY FEBRUARY MARCH APRIL

Two CDE policy briefs – on inequality and on pesticides

Two CDE policy briefs were published in 2019. In February, a policy brief on inequality promoted a systemic view to examine how wealth is created and how to achieve fairer outcomes. This was followed in November by a policy brief on pesticide use, which outlines key harms and research findings, highlights alternatives to pesticide-intensive agriculture, and calls for phasing out the riskiest substances.

tinyurl.com/CDE-policy-briefs



Open Science Meeting of the Global Land Programme

The 4th Open Science Meeting of the Global Land Programme, whose office is hosted by CDE, took place at the University of Bern from 24 to 26 April. More than 600 leading land scientists from around the world met at the conference titled "Transforming Land Systems for People and Nature" to discuss such questions as: How should land be used to tackle the global challenges of society and the environment? How can we resolve issues around land ownership, conflict and power, food systems, or soil degradation, in ways that meet the needs of people and communities?

glp.earth/news-events/blog/osm-2019



MAY

IPBES warns of drastic acceleration in species extinction

On 6 May, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) presented its report on the state of biodiversity and ecosystem services worldwide. The first such assessment since 2005, it concludes that biodiversity and ecosystem loss has reached the point where it threatens human well-being. The researchers involved recommend several urgent measures to political decision-makers. Andreas Heinemann of CDE was the one Swiss scientist who worked as a lead author on a chapter of the report.

tinyurl.com/CDE-heinemann



JUNE JULY

CDE employees at nationwide women's strike

A group of over 30 CDE employees – both women and men – took part in Switzerland's nationwide women's strike on 14 June. Their banner bore a message calling on the scientific community to act on equality within academia in order to achieve the social transformation needed.





New SNSF project: Sustainable Trade Relations for Diversified Food Systems

How can governments promote diversified food systems with more sustainable trade relations – and do so in compliance with domestic constitutional obligations as well as international rules? In August, a project at CDE began investigating these questions. The project is funded by the Swiss National Science Foundation, within the National Research Programme “Sustainable Economy: resource-friendly, future-oriented, innovative” (NRP 73). tinyurl.com/trade-food



CDE at the Conference of the Parties of UNCCD

The Conference of the Parties of the UN Convention to Combat Desertification (UNCCD), which took place from 1 to 13 September in New Delhi, agreed on 36 decisions to ramp up and develop further actions on the ground to ensure that the Convention’s goals for 2018–2030 are achieved. CDE researcher Markus Giger represented Switzerland at the session of UNCCD’s Committee on Science and Technology. In addition, CDE researchers from the WOCAT programme participated in seven side events. They presented new insights from research on sustainable land management (SLM), new tools and methods for SLM and land degradation neutrality, as well as lessons learned from SLM activities with partners around the globe. tinyurl.com/cde-at-unccd



Happy 30th Anniversary, CDE!

And there was yet another reason to rejoice: CDE’s 30th anniversary was celebrated in style on 13 September, at a party in a popular cultural centre in Bern. Guests included representatives from science, the public administration, and CDE’s partner institutions.



Wyss Academy for Nature founded

The Wyss Academy for Nature was officially established on 13 December. The Academy promises to become a leading research and practice centre in the field of nature and people. Scientific teams will work with practitioners and representatives from policy, business, and civil society to develop innovations for the protection and sustainable use of nature across four continents. Made possible by philanthropist Hansjörg Wyss, the Wyss Academy is a joint endeavour of CDE, the Oeschger Centre, and the Institute of Plant Sciences, all at the University of Bern. CDE Director Peter Messerli has been designated to lead the new centre. tinyurl.com/unibe-wyssacademy

AUGUST

SEPTEMBER

OCTOBER NOVEMBER

DECEMBER

First e-conference of the Copernicus Alliance

Three days, 80 participants, 30 countries, 0 travel carbon: the Copernicus Alliance Online Conference 2019 from 9 to 11 September was a resounding success. The event brought together people and institutions committed to transforming higher education towards sustainable development. Participants from around the world joined the virtual conference rooms and took part in discussions and interactive sessions. The President of the Copernicus Alliance, CDE researcher Anne Zimmermann, said afterwards: “It was a truly inspiring and unexpectedly transformational event.” tinyurl.com/copernicus-e-conference



Global Sustainable Development Report 2019 published

On 11 September, an independent group of 15 scientists co-chaired by CDE Director Peter Messerli presented the Global Sustainable Development Report 2019, *The Future is Now: Science for Achieving Sustainable Development*, to the United Nations. Speaking at the event, UN Secretary-General António Guterres said: “We must redouble our efforts to eradicate poverty, ensure human well-being, and protect our planet.” tinyurl.com/unibe-GSDR



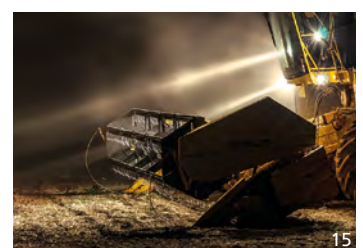
Second joint Sustainability Day at Bern’s institutions of higher education

The second joint Sustainability Day of PHBern, the University of Bern, and the Bern University of Applied Sciences was held on 1 November. Co-organized by CDE, the event showed some 350 visitors how the three institutions of higher education are creating innovations for sustainable development. In addition, representatives from business, science, and policy discussed ways of expediting uptake of research results by policy and society. More information in German: tinyurl.com/unibe-sustainabilityday



New project partnership with Finland

Current food systems are having substantial negative impacts on the climate, the environment, and human health. This can only be remediated by switching to more sustainable production, tackling food waste, and changing our diets. But how can we manage this transition without creating new problems? In a new project, Finnish and Brazilian researchers and CDE are jointly developing options for a just and socially acceptable transition. The project “JUST-FOOD” is funded by the Strategic Research Council (SRC) at the Academy of Finland. tinyurl.com/CDE-just-food



Please find the photo credits on the inside back cover

CDE's programme activities: an example

CDE maintains a worldwide network of long-standing research partnerships. We work closely with countries from the global South and East, to better understand the impacts of global change and to develop appropriate strategies that are adapted to local, regional, and global contexts. We also support Swiss and international academic networks that coordinate sustainability research. We act as intermediaries between research and education, and are committed to innovative science policy.

One outcome of this work is the report titled *State of Land in the Mekong Region* – the first publication of its kind. Published in spring 2019, the report brings together key data and information on the current status of, and changes in, land resources, their social distribution, and the conditions of governance that shape them in the Mekong countries. In addition, it reflects on how these regional issues relate to global change processes and stresses the need for urgent action towards transformational change.

Contributions from world-leading experts

Rapid growth of its agricultural sector has made the Mekong region a global centre of production of land-intensive commodities like rubber, rice, cassava, wood, sugar cane, and palm oil. While increased international investment and trade have contributed to economic growth, the outcomes have been highly unequal: the benefits of development have accrued mainly to the urban elite, while costs have largely been borne by the rural poor. Rural land relations are changing fundamentally, creating new insecurities for land tenure.

The report was co-produced by CDE and the Mekong Region Land Governance Project (MRLG) and presented at the World Bank Land and Poverty Conference in Washington, DC in March 2019, with subsequent launches in Cambodia, Myanmar, Thailand, and Vietnam. It features contributions from world-leading experts from Asia, Europe, and the US. Funding was provided by the Swiss Agency for Development and Cooperation (SDC), the German Federal Ministry for Economic Cooperation and Development (BMZ), and the Government of Luxembourg.

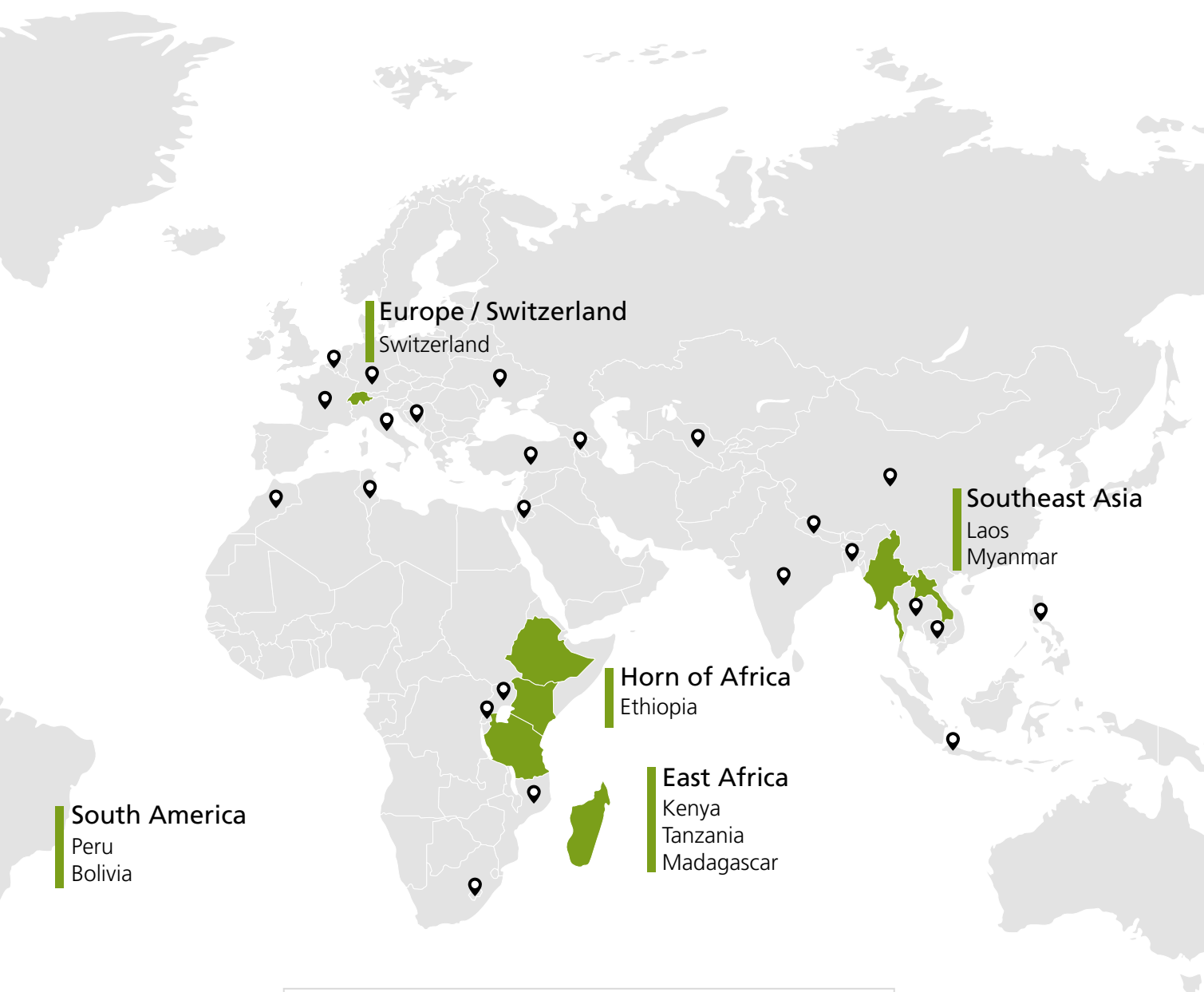
"Forerunner and model for similar efforts in other regions of the world"

According to Ivo Sieber, then Swiss Ambassador to Thailand, Cambodia, and Laos, "*State of Land in the Mekong Region* is the first publication of its kind in this region, and an invaluable asset for donors, development organizations, and government agencies as we work together towards the achievement of the Sustainable Development Goals under Agenda 2030. In particular, it provides a robust basis of information and analysis to support the needs of smallholder farmers and rural communities as they grapple with complex challenges."

CDE Director Peter Messerli expressed the hope "that the report will promote further dialogue around the complex issues we face today, and also that it will be a forerunner and model for similar efforts in other regions of the world."

tinyurl.com/State-of-Land-Mekong





CDE's project activities worldwide in 2019

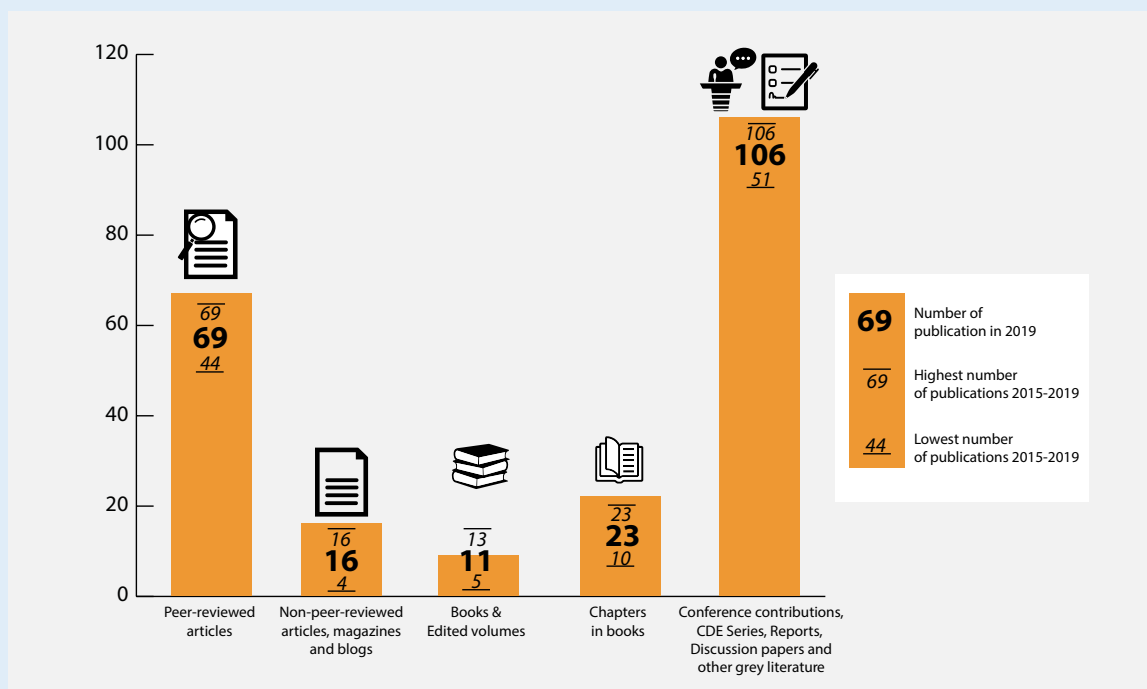
- CDE's key partner regions
- 📍 Other countries with project activities

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Publications in 2019

Peer-reviewed articles in journals

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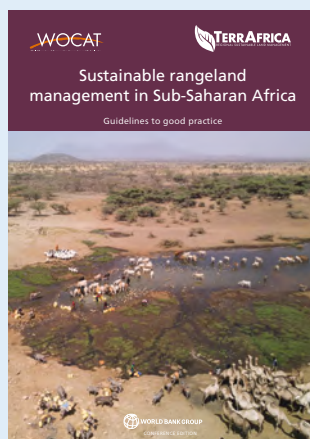
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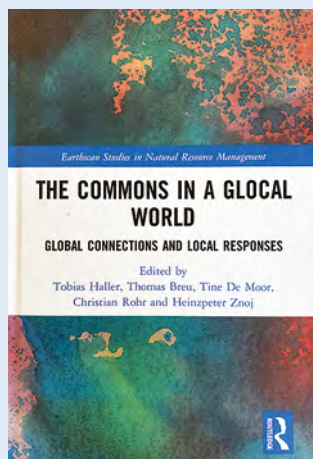
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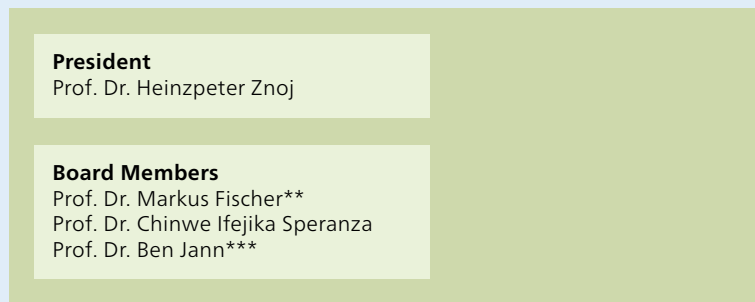
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Organization chart*

Board



Management



CDE Members****

- Sustainable Land Management, Institute of Geography, Prof. Dr. Chinwe Ifejika Speranza
- Labour and Social-Ecological Transitions, Institute of Geography, Prof. Dr. Patrick Bottazzi
- Geography and Sustainable Development, Institute of Geography, Prof. Dr. Susan Thieme
- Culture, Ecology and Politics, Institute of Social Anthropology, Prof. Dr. Heinzpeter Znoj and Prof. Dr. Tobias Haller
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- Sustainable Social Development, Institute of Sociology, Prof. Dr. Sonja Vogt
- Contemporary History, Institute of History, Prof. Dr. Christian Gerlach

Operational Units



* As at 31 December 2019

** Institute of Plant Sciences

*** Institute of Sociology

**** CDE members contribute to research and teaching, and benefit from CDE's services and networks.

Finances

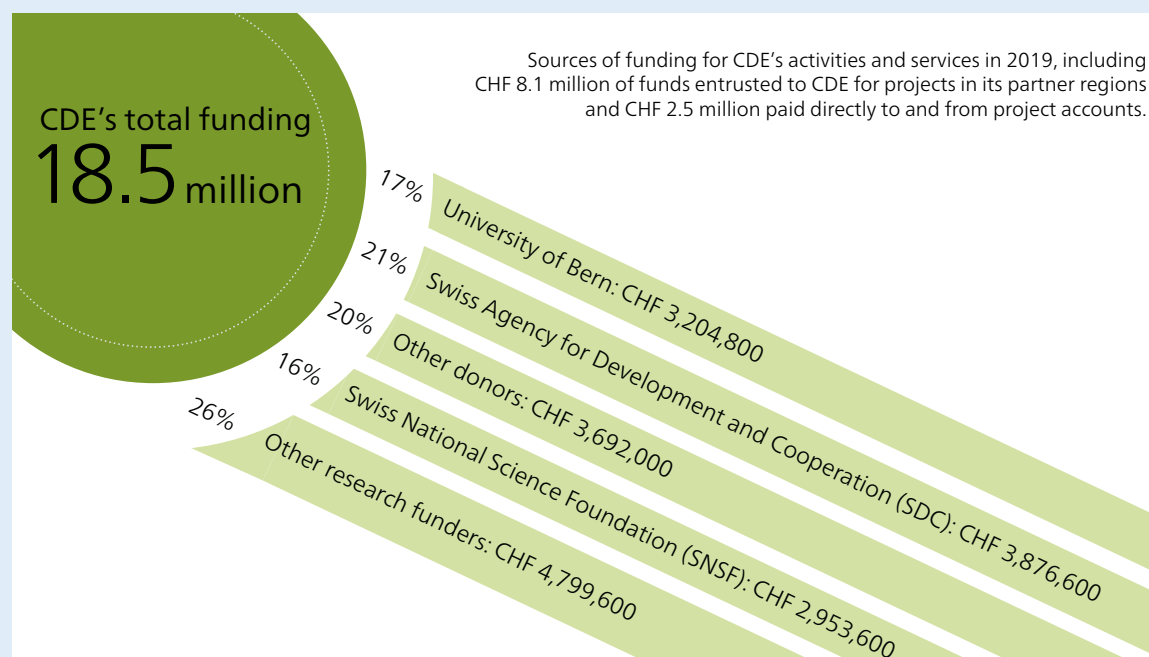
Financial account for 2019¹ (in CHF, rounded)

INCOME		
External funds		
Programme income	4,459,400	
Other income (services)	183,100	
<i>Total external funds</i>	<i>4,642,500</i>	
University funds		
Contribution to office rent ²	0	
Contribution to personnel expenditure	2,592,900	
Contribution to operating expenses	611,900	
<i>Total university funds</i>	<i>3,204,800</i>	
Total income	7,847,300	
EXPENDITURE		
Personnel		
Salaries		5,851,000
Social benefits		1,270,500
<i>Total personnel</i>		<i>7,121,500</i>
Other expenditure		
Office rent		0
Office operating expenses		447,500
Travel		74,500
Miscellaneous		238,300
<i>Total other expenditure</i>		<i>760,300</i>
Accruals		-34,500
Total expenditure		7,881,800

The financial account and balance sheet for 2019 were audited externally and internally and were approved.

¹ Does not include funds entrusted to CDE for projects in its partner regions and funds paid directly to and from project accounts

² Paid directly by the university administration



Balance sheet as at 31 December 2019 (in CHF, rounded)

ASSETS	
Current assets	
Liquid funds, CDE	59,000
Accounts receivable	1,785,400
<i>Total current assets</i>	<i>1,844,400</i>
Prepaid expenses	166,300
Total assets	2,010,700
LIABILITIES	
Current liabilities	
Accounts payable	31,600
Project funds	811,300
Prepaid income	0
Tied reserves ¹	300,000
<i>Total current liabilities</i>	<i>1,142,900</i>
Equity capital	
Capital ²	699,300
General reserves ³	168,500
<i>Total equity capital</i>	<i>867,800</i>
Total liabilities	2,010,700

¹ Reserved for severance payments and special research

² Equity capital at date of establishment of CDE as an interdisciplinary research centre in mid-2009

³ Accumulated gains and losses from previous years

Publisher: Centre for Development and Environment (CDE)

Editing and translation: Gaby Allheilig, Tina Hirschbühl, Anu Lannen, Marlène Thibault (CDE)

Proofreading: Stefan Zach (z.a.ch gmbh)

Layout: Simone Kummer (CDE)

Infographics: Christoph Bader (CDE)

Printing: Druckerei Varicolor AG, Münchenbuchsee

Cover photo: At the closing session of the 4th Open Science Meeting of the Global Land Programme. Photo: Manu Friederich

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