

Annual Report

2023



The Wyss Academy's aim is to find innovative solutions to the pressing challenges of our time – and to continuously develop and improve them. In 2023, we achieved a great deal in this regard.

# 2023 **Annual Report**

Wyss Academy for Nature  
at the University of Bern

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Foreword

# Letter to our stakeholders

Dear readers,

An eventful reporting year lies behind us. We are delighted to present the 2023 Annual Report of the Wyss Academy for Nature at the University of Bern, which looks back at our fourth year since inception. In line with our strategy, we remain committed to finding innovative solutions towards addressing the needs of nature and people.

Envision a world in which nature conservation and human well-being are not only mutually dependent, but also reinforce each other. Finding ways of realizing this vision: that is what the Wyss Academy is about — in the regional hubs in East Africa, South America, the Swiss Canton of Bern, and since 2023, also in Southeast Asia. In the latter region, we are especially pleased to report, our new, small hub team based at the **Centre for People and Forests (RECOFTC)**, at Kasetsart University in Bangkok, is already actively conducting work in Laos (in Sayaboury Province) and in northern Thailand.

**Annual theme: Economic approaches to change**

The private sector is crucial to advancing the systemic change necessary to protect our planet. What could economic activity look like if the needs of nature and people were considered from the start? We closely examined this question in the year under review. In Peru, for example, our local partners are collaborating with Amazon nut (also known as Brazil nut) farmers to develop an innova-

tive and sustainable tourist offering in the Tambopata National Reserve, in the region of Madre de Dios. In the Canton of Bern, we aim to sustain the forest and simultaneously improve the value chain of the regional logging industry. In Kenya, community groups are earning income from dried oyster mushrooms grown on elephant dung.

**Core activities: Partnership-based exchange and commitment**

One of the highlights of the last year was our Board’s project visit in Kenya in March. In addition, members of our **Advisory Committee** visited the Amazon region of Madre de Dios, Peru, in August, where they gained insights into the work of our Hub South America and local partner organizations. The exchange that took place with various stakeholders during both visits was inspiring and educational for everyone involved.

In addition, our competence centers — which work closely with our hubs in areas such as Research & Innovation, Global Policy Outreach & Synthesis, and Learning, Monitoring & Evaluation — also made progress towards the achievement of our strategic goals. For example, the Changemakers Program launched in 2023 empowers young people to contribute to systemic change. Out of 600 applicants, 31 young participants from Kenya, Peru, and Switzerland were selected to jointly design and complete a six-months

training program tailored to their needs. The training has enabled them to implement their own projects towards positive change in their environments, on behalf of both people and nature. The program was led by our Competence Center for Global Policy Outreach & Synthesis.

### A new research area added to our portfolio of expertise

We are also very pleased that a fifth research area has been added to our Competence Center for Research & Innovation. Under the leadership of Prof. Dr. Quynh Nguyen, the Environmental Governance and Global Development team began its work in mid-2023. Its main areas of focus can be found on [page 46](#).

### Strengthening the relevance of knowledge with inter- and transdisciplinary projects

In addition to topic-specific scientific work, our research teams were also deeply engaged in inter- and transdisciplinary projects last year. These projects are exemplary of the Wyss Academy's approach, which emphasizes addressing diverse global challenges in

a networked, systemic manner. In Peru, for example, we collaborated with farmers' organizations and other stakeholders to identify what these groups actually need in order to practice sustainable agroforestry. In Kenya, we worked together with our partners to develop solutions for improving water resources and biodiversity in the catchment area of the Ewaso Ng'iro North River – with the declared aim of "Wealthier people in healthier environments!" And in the Amazon region of Peru, our Artisanal Gold Mining project has been investigating, among other things, what hinders miners from using alternatives to mercury for gold extraction.

### A concluding message

As of the end of 2023, the Wyss Academy for Nature employs 90 people from a total of 12 countries. This cultural diversity drives us forward each day as a learning organization. And it provides the ideal foundation for achieving our ambitious goals. We are committed to not only identifying innovative solutions to today's urgent challenges, but also to applying, continuously developing, and improving such solutions. Our sincerest thanks go to our staff and partners for their dedication and for the significant strides we have made together on this path. We would also like to thank the Board and the Advisory Committee for their support, guidance, and trust.

And now we wish you an informative and enjoyable read.

**Prof. Dr. Christian Leumann**  
President

**Prof. Dr. Peter Messerli**  
Director

### Welcome to our 2023 Annual Report

Prof. Dr. Peter Messerli



Watch on YouTube



# Topic of the year: Economic approaches to change

The private sector is crucial to advancing the systemic change necessary to protect our planet. What does economic activity that considers the needs of nature and people look like?

We closely examined this question in the year under review. This includes, for example, Peru, where our local partners are collaborating with Amazon nut (also known as Brazil nut) farmers to develop an innovative and sustainable tourism offering in the Tambopata National Reserve, in the region of Madre de Dios; the Canton of Bern, where we aim to sustain the forest and simultaneously improve the value chain of the regional timber industry; Kenya, where community groups are earning income from dried oyster mushrooms grown on elephant dung; and finally Laos, where we conducted a study on the economic potential of non-timber products.

### Hub Bern: Innovative products made from difficult-to-market raw wood

Regional value chains for wood already exist in the Canton of Bern. But there is still a lot of potential for the development of new, environmentally sustainable products that can be gradually rolled out and established in the

market. In parallel, it is also essential to forge a network between businesses active in this area, as well as to strengthen trust between the many interest groups from industry, politics, and society who are part of the value chains. In addition to forest owners, these include sawmills, wood planing and gluing plants, builders and carpenters, as well as customers, architectural firms, forest visitors, hunters, and conservationists.

This is the starting point for several incubator projects launched in the Oberland-Ost and Emmental regions by the Wyss Academy for Nature's Hub Bern, together with **Lignum Holzwirtschaft Bern** and the **Office for Forests and Natural Hazards (AWN)** of the Canton of Bern. In addition to enhancing markets and networking, these projects aim at improving forest ecosystem services. One of the projects focuses on the commercialization of difficult-to-market raw wood, including pine, beech, and spruce: desire for them is low, despite increasing demand for wood. In surveys and workshops with stakeholders led by the **Bern University of Applied Sciences (BFH)**, new ideas were identified and compiled for how to market the wood regionally at a higher price than firewood. Following a multi-stage expert review of the various proposals, four product or project ideas were finally defined and developed into business cases in 2023: biochar, charcoal for grilling, fuelwood for electricity generation, and glue-laminated timber.

"Biochar can be used as a methane-reducing additive in animal feed," explains



project leader Stefan Lobsiger from BFH in a [video interview](#). “It can also be used in plant cultivation, where it saves water, provides nutrients, and makes plants demonstrably more resistant.”

### There is still a lot of potential for the development of new and environmentally sustainable products

The charcoal used for grilling in Switzerland is largely imported – including from forests without sustainability certification, according to WWF Switzerland. This creates an opening for Switzerland to produce its own grilling charcoal from regional wood. Such wood could also be used to produce electricity. One large-scale power plant in Stans, for example, currently produces 1,200 megawatts of electricity from wood, covering the yearly needs of 1,000 single-family homes. Also conceivable is the production of glue-laminated timber for concealed structures such as industrial halls. Each business case that is developed includes various criteria for product evaluation – including risk factors, economic viability, and social acceptance – as well as concrete recommendations for action. These form the basis for a catalog of measures which will be subsequently discussed and adopted together with stakeholders in 2024.

Additional Hub Bern projects concerned with economic approaches for change can be found here:

- [Sustainable use of water and soil in the Three Lakes Region \(Bernese Seeland\) \(LANAT-2\)](#)
- [Climate neutral Region Oberland-Ost \(AUE-1\)](#)
- [Replacement of raw materials in the circular economy \(AWA-1\)](#)

### Hub South America: Secure income thanks to the Amazon Nut Route

In the Peruvian province of Tambopata, in the region of Madre de Dios, the Wyss Academy for Nature's Hub South America is working together with stakeholder groups

to test approaches to fostering sustainable economic development in unison with conservation goals. This includes projects to market Amazon nuts (also known as Brazil nuts) whose trees live and are protected in concession areas. In 2023, a total of five organizations carried out various entrepreneurial and innovative experiments along the value chain of this beneficial non-timber product, with the support of the Hub South America team. Among them is our partner organization [Shiwi](#), a private company that strengthened the so-called Amazon Nut Route, a gastronomic and cultural touristic experience. Its aim is to improve the living conditions of nut collectors. On the one hand, the collectors diversify their economic activities by being an active actor along the Route, and on the other, increase their family income. “We make sure that the income generated is distributed fairly through offering a variety of goods and services from the nut collectors involved in the initiative – including boat trips, foods, and the maintenance of tourist areas,” explains Sofia Rubio, founder of Shiwi. “The Amazon nut activity is a seasonal business. To make a living in the off-season, many nut collectors work as loggers or farmers; or they work in artisanal gold mining.”

### Nature-aligned alternatives can improve living conditions

The Amazon Nut Route provides them with alternatives that align with nature – for example, the joint development of sustainable tourism offerings in the region, including guided jungle hikes and culinary experiences. “Right now, we’re also involved in a tourism program that the Wyss Academy is carrying out together with [Swisscontact](#), where members of the Route are also participating in this program, enhancing their knowledge and abilities,” says Sofia Rubio.

*Further information on the Amazon nut value chain network and sustainable tourism in Madre de Dios can be found in the Hub South America chapter on [page 10](#).*



The mushroom project is an opportunity for women in pastoralist communities to gain new skills and knowledge, to improve livelihoods and nutritional security. Susan Kabacia of the NMK (left, in pink head wrap) and Elizabeth Kuraru of the Green Earth Warriors (second from left)  
Photo: Tag House / Wyss Academy

### Hub East Africa: Sprouting value — and mushrooms — from an innovative idea

At the Wyss Academy's Hub East Africa, economic approaches to change took an interesting turn; creating value in elephant dung, and diversification of diets for a largely meat-eating community in semi-arid northern Kenya.

Through a partnership between the Wyss Academy for Nature, the [National Museums of Kenya \(NMK\)](#), and community group [Green Earth Warriors](#), a new farming technique was successfully piloted to grow nutritious oyster mushrooms using elephant dung as a substrate. The innovative approach combines scientific methods with local capabilities to bring about food security, nutritional diversity, and improved livelihoods for residents of Naibunga Community Conservancy in Laikipia County, Kenya. “Working out in the field, and on various projects around rhi-

nos and elephants, I wondered if in addition to conservation, food security could also be a consideration for the communities we work in,” said Antony Wandera, Projects Manager at the Wyss Academy for Nature's Hub East Africa, and originator of the idea.

Dubbed the “mushroom project”, it has not only delivered a delicious plant protein, or generated work and income, but it has also empowered the community—especially the women. As pointed out by Susan Kabacia, Research Scientist at the NMK, “With this new confidence, there's also the motivation to transfer the acquired knowledge and skills to women in neighboring communities, thus fostering cohesion and unity – a win for all-around development in the area.”

In less than six months, the Green Earth Warriors mobilized 25 women to work on the project. The resulting “Mushroom Women Group” was trained on the entire mushroom production process, including collection and



processing of elephant dung substrate, as well as mushroom cultivation, storage, processing, and preparation. “The women are happier, they feel more productive, and directly contribute to the health and wellbeing of their families,” said Elizabeth Kuraru, Gender Representative of the Green Earth Warriors.

### Hub Southeast Asia: Use of non-timber products to create value, and for reforestation

In Southeast Asia, economic pressures have triggered a profound and drastic transformation in the landscape, highlighting the urgent need for new economic approaches that bring positive change for both communities and the environment. In Sayaboury Province, Laos, more specifically, a decade ago, the Nam Tien Reservoir was used to supply water to rice farmers downstream and was surrounded by dense forests, providing habitat for rare bird and animal species. Fruits, nuts, herbs, and mushrooms thrived in these forests, forming an integral part of the local communities’ diet. Since then, the landscape has undergone significant changes, with hundreds of hectares cleared to make way for crops demanded by foreign investors. Despite being designated a ‘Provincial Protected Area’ by the provincial government, research revealed alarming trends, including the replacement of natural vegetation with banana plantations treated with pesticides, extensive melon fields covered in plastic sheeting, and the cultivation of maize and cassava on rapidly eroding slopes.

A study conducted in 2023 by the Wyss Academy, in collaboration with our partners, the **CDE (Centre for Development and Environment)** and **Swisscontact**, focused on current practices involving non-timber forest products, as well as identifying potential interventions which may be adopted to combine replanting efforts in the forests and at the same time, bring economic benefits for the local communities. The analysis of non-timber forest product value chains resulted in a list of products that may be used to counteract current trends. It demonstrates, for example, the potential for growing and commercializing a selection of herbs native to Southeast Asia that hold great significance in traditional medicine and may also serve as a food source.

Other options include fostering the production of mushrooms to supply the internal market, or focusing on the exportation of sugar palm fruits, also known as Asian palmyra palm fruits, which have a high market value. The overall goal is to replace unsustainable mono cropping with multi-story agroforestry systems to improve ecosystem services, while also improving local livelihoods. The research work was accompanied by workshops and by the initial foundation of a multi-sector stakeholder collaboration, which brings promising avenues for the sustainable development of new ideas and initiation of new incubators.

## Milestones in 2023

In 2023, the Wyss Academy for Nature achieved a number of milestones in the areas in which we work – and in our further development as an organization.



### January

#### Outreach

#### Methods expanded through the “Art of Hosting”

Throughout the year, local partners and staff from all areas of the Wyss Academy attended three-day Art of Hosting sessions on co-designing, executing, and harvesting participatory work with stakeholder groups. A digital Engagement Toolbox was developed, and tools and methods were practiced on various occasions.



### March

#### Regional Hubs

#### Opening of the Hub East Africa offices in Kenya

Following the establishment of the local Hub East Africa team, led by Dr. Benson Okita during the previous year the hub’s Kenyan offices were officially opened in Nanyuki. Hansjörg Wyss and other members of the Wyss Academy Board were present for the opening.



### May

#### Living Labs

#### Climate-neutral tourism in Switzerland: Pathways outlined

Led by the **Centre for Development and Environment (CDE)**, a participatory development process within this Wyss Academy project generated visions of what climate neutrality might look like for the tourist region of Oberland-Ost in Switzerland, which includes Interlaken. Participants also outlined pathways toward reaching this desirable future. Results were **presented in a brochure** that can be used as a compass for taking actions needed for change.





## June

### Outreach

#### Changemakers Program launched

In June 2023, the Wyss Academy launched a training program to empower and equip young people to play leading roles in fostering sustainable development. A total of 31 changemakers from Kenya, Switzerland and Peru gained transferable skills and knowledge to drive positive change in human-nature relationships within their communities.



## July

### Research & Innovation

#### Environmental Governance and Global Development team now operational

In July of 2023, Prof. Dr. Quynh Nguyen joined the Wyss Academy as head of the research & innovation team on Environmental Governance and Global Development. The creation of a new team of researchers was among her first tasks. The latest of the Wyss Academy's five research & innovation teams investigates how certain governance arrangements help or hinder efforts towards promoting environmental protection and advancing economic livelihoods.



## August

### Regional Hubs

#### Advisory Committee pays visit to Peru

The Hub South America team welcomed members of the Wyss Academy's permanent Advisory Committee to Madre de Dios in Peru and introduced them to its various projects in Tambopata province. This gave the visitors a direct insight into the work of the Hub and its partner organizations and provided them with valuable food for thought in the exchange.



### Regional Hubs

#### Bangkok offices for Hub Southeast Asia

In August, the Wyss Academy's Hub Southeast Asia moved into its own offices at the **Centre for People and Forests (RECOFTC)**, located on the campus of Kasetsart University in Bangkok, Thailand. Three new colleagues work in the team, including Hub Director Dr. Horst Weyerhäuser.



## September

### Partnerships

#### Partnership agreement with the Elephant Conservation Center in Laos

The aim of the newly established partnership between Hub Southeast Asia and the **Elephant Conservation Center (ECC)** is to test innovative

species and habitat conservation approaches. These respect the needs of local communities and bring co-benefits to people in the Nam Tien provincial protected area and its surroundings in western Laos.



## October

### Innovation

#### Co-Development of the Wyss Academy Innovation Fund

To help achieve enduring impact in our Solution-scapes, the Wyss Academy Innovation Fund was developed together with Brainforest, as a tool to explore the possibilities of collaborating with sustainable private sector start-ups and other organizations.



## November

### Partnerships

#### Launch of a partnership with the University of Nairobi (UoN)

In November, the Wyss Academy and the Wangari Maathai Institute for Peace and Environmental Studies agreed on a collaborative framework for joint projects in East Africa in such areas as Biodiversity, Water, Climate Change, Sustainability and Environmental Governance. The agreement was signed by Hub Director Dr. Benson Okita and Professor Stephen Kiama Gitahi, Vice Chancellor of the UoN.



## December

### Living Labs

#### Dramatic local scale-up of semi-circular bunds project in Kenya

An initial pilot of 5,000 semi-circular bunds, dug to re-green the landscape in Laikipia County, Kenya, has demonstrated huge potential for scaling, thanks to the co-visioning approach employed. Launched in response to an initiative of the youth-led Green Earth Warriors group in Naibunga Community Conservancy, by December, the project had grown to more than 50,000 bunds, with several more being planned.



### Organization

#### Governance structures completed

In the spirit of lean organizational management, the Wyss Academy defined a framework for institutional governance under the leadership of the Management Center. The introduction of its Management & Operations Regulations will enable the Wyss Academy for Nature to work according to the same standards in all countries and areas.



Regional Hubs

# Hub South America



Collectors cracking Amazon Nuts (also known as Brazil Nuts or Castañas) in their concession in the Tambopata province, Peru  
Photo: Pavel Martiarena



The Wyss Academy for Nature's Hub South America, led by Miguel Saravia, focuses on the Madre de Dios region in the Peruvian Amazon. This area faces significant landscape changes due to agriculture expansion, logging, and mining, which are worsened by the interoceanic highway. Such activities pose threats to biodiversity, local culture, and the well-being of inhabitants. To reverse these negative trends, the Hub team collaborates with partners to combine conservation with community needs. Together, they design experiments based on scientific and local knowledge. Their aim is to establish new models and provide alternatives to the current development, engaging in projects related to Innovative Territorial Governance, Transformative Knowledge Dialogues, and Active Networks for Transformative Change. In the Tambopata province, where diverse territorial governance mechanisms coexist, including protected and heavily degraded areas, they have identified a great opportunity to implement their Solutionscape — using a living lab approach to carry out experiments for promoting the sustainable development of local livelihoods aligned with conservation goals.



**Location/region:** Madre de Dios, Peru

**Population:** Around 140,000

**Biodiversity:** A threatened biodiversity hotspot in the Tropical Andes, Madre de Dios has large areas of essentially undisturbed rainforest and one of the world's highest levels of biodiversity, with up to 300 different tree species on a single hectare of land. The rainforest here is home to unique plants and animals and stores globally significant amounts of carbon dioxide.



## Main achievements in 2023

### 1. Progress towards profitability: Amazon nut value network

The Amazon nut (also known as Brazilian nut) is a valuable non-timber forest product in Madre de Dios, managed through concessions. In 2023, the Hub supported five organizations in carrying out experiments along this value network, from developing technological processes for cheese and yoghurt to an app to improve traceability and tree carbon estimation. They also led a study to identify potential waste management spin-offs. Additionally, they have started a stakeholder-engaged co-design process to establish a platform for experimenting and developing businesses related to Amazon nuts, focused on creating viable opportunities, particularly in the Tambopata province, for the concessions and for other stakeholders.

### 2. Enhanced governance: Sustainable tourism in Tambopata

Tourism in the Tambopata area faces significant challenges that severely impact the ecosystem, such as low stakeholder competitiveness, poor public-private coordination, ineffective service management, lack of differentiation, and increased pressure on natural resources. With our partner **Swisscontact**, the Hub team has defined needs and gaps to strengthen the local value network and enhanced the coordination and governance among stakeholders, leading to a community of practice that will be the focus of their actions in 2024, particularly in two locations in Tambopata province.

### 3. Strategic plan created for the Tambopata Reserve buffer zone

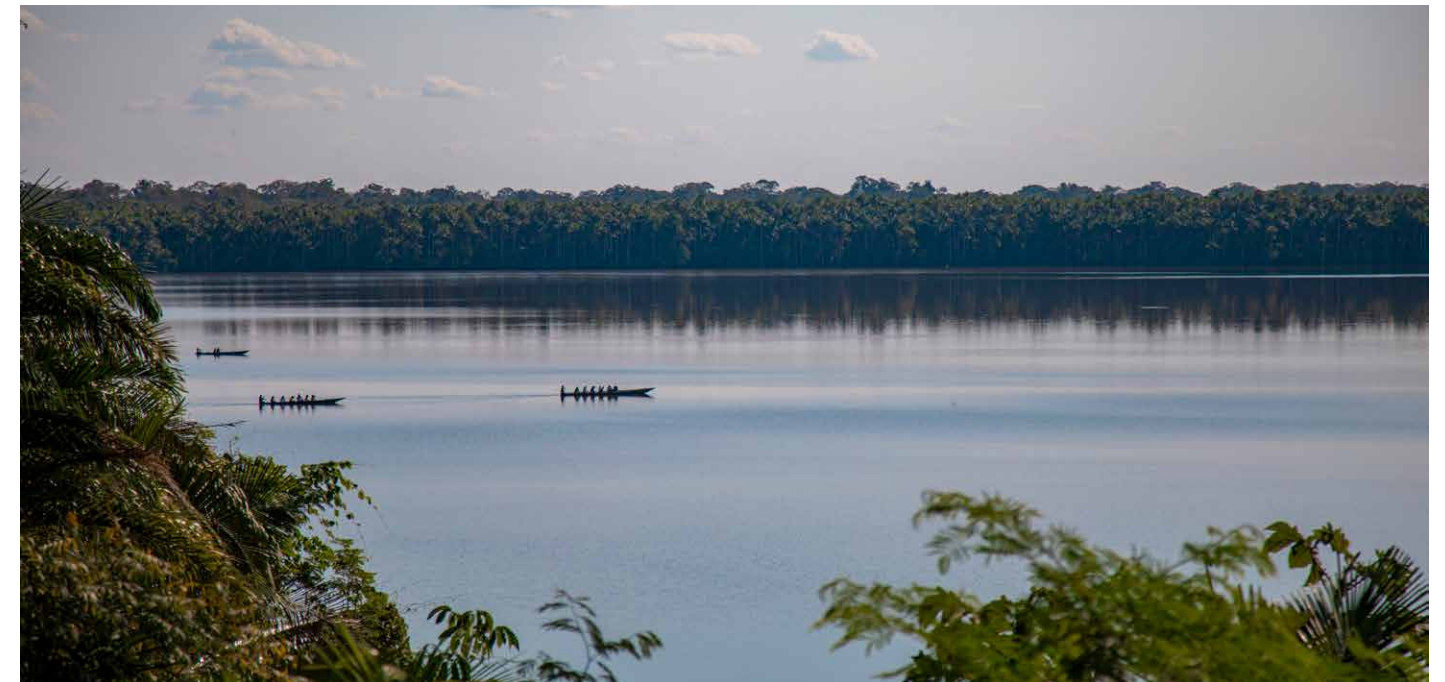
Collaborating with **Conservación Amazónica (ACCA)**, the **Tambopata Reserve Management Committee**, and the **Peruvian Protected Area Agency (SERNANP)**, the Hub crafted a strategic plan for the Tambopata Reserve buffer zone, meeting stakeholder needs and preparing the ground for catalyzing this experience into nationwide guidelines. As a next step, they will support the integration of this plan into Tambopata province's development strategy. Their aim is to showcase how individual plans can support the implementation of the overall development plan in their Solutionscape.

### 4. Support of innovation and entrepreneurship in Tambopata province

Engaging stakeholders is crucial for maintaining and fostering healthy forests and multifunctional landscapes. Therefore, the Hub team collaborated with the Tambopata province municipality and other local stakeholders to co-design a government-funded proposal to drive innovation and entrepreneurship, particularly in Tambopata province. They also assisted private companies in proposing a sustainable investment initiative in Madre de Dios with the potential for positive impact in part of Tambopata province, and worked closely with three youth programs for leadership and entrepreneurship development. Additionally, the Hub supported the **Círculo de Investigación del Bambú – CIB** (Bamboo Research Circle) in exploring further development potential in the region.

### 5. Opportunities for collaboration on fair and sustainable gold mining

Gold mining generates severe environmental and social challenges. However, artisanal and small-scale gold mining (ASGM) is crucial for Madre de Dios' economy and plays an essential role in its development. A scoping study with a research center within the **Universidad del Pacífico** helped identify entry points for collaboration towards a just and responsible ASGM, for Madre de Dios and particularly for the Tambopata province. We also created a trusted space for key stakeholders to come together and discuss gaps and needs in the ASGM value chain.



Sandoval Lake, a tourism destination, part of Hub South America's sustainable tourism program in Tambopata National Reserve, Peru  
Photo: Pavel Martiarena



Bowl with mercury and gold sand. Mercury is used extensively in the gold extraction process in San Jacinto Native Community, in Tambopata province, Peru  
Photo: Pavel Martiarena



Elina Yumbato and Oswaldo Balarezo collecting Amazon nuts in their concession along the Amazon Nut Route, a sustainable and community-based tourism initiative in Tambopata National Reserve, Peru  
Photo: Natalia Peralta

### Interview with Prof. Dr. Armando Valdés-Velásquez, Senior Advisor at Hub South America

Headed by Miguel Saravia



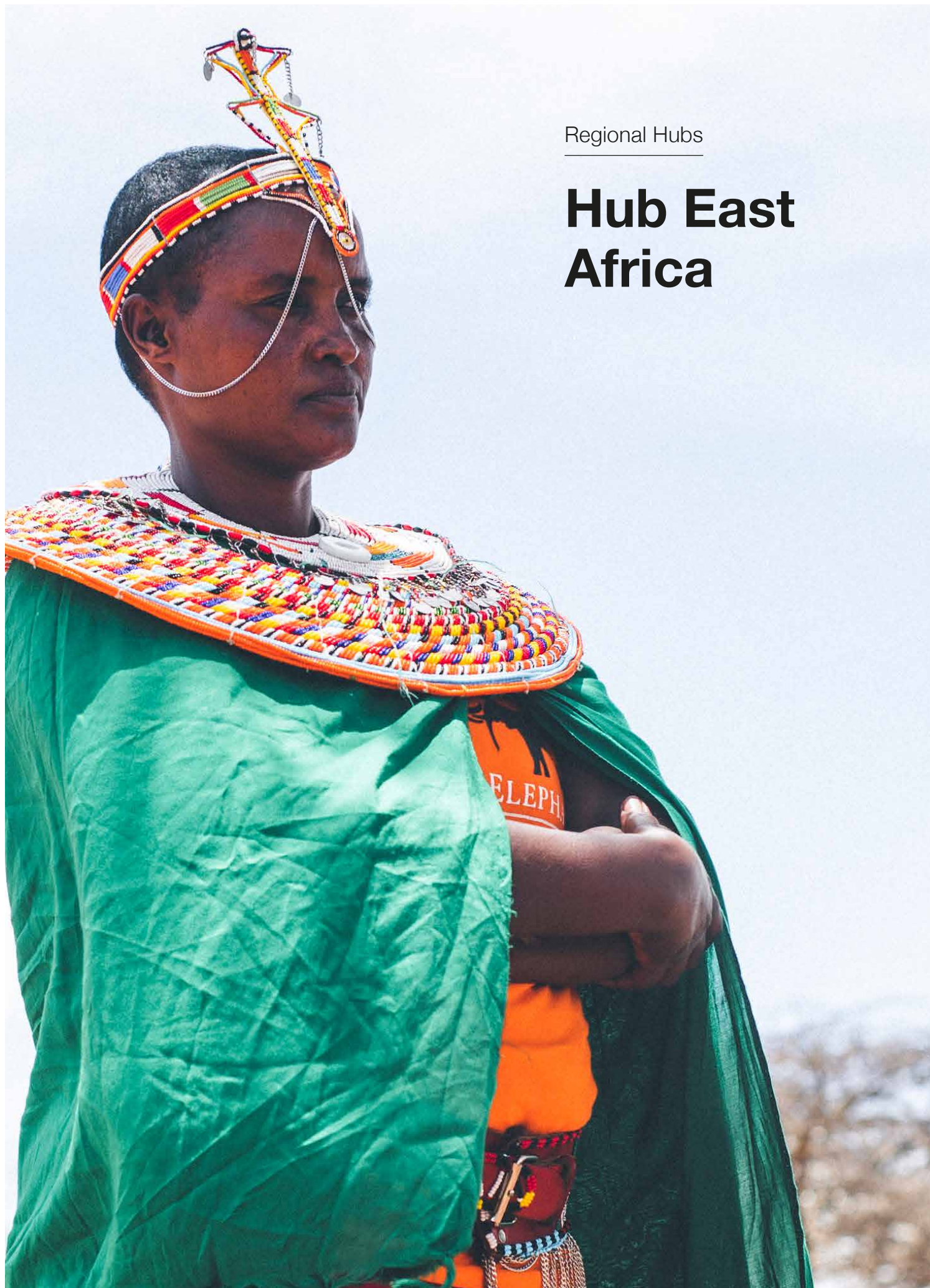
Watch on YouTube





Regional Hubs

# Hub East Africa



Buffer zone of Masoala  
National Park, District  
of Maroantsetra  
Madagascar  
Photo: Drones.mg



In East Africa, changes in land use combined with the effects of climate change have increased pressure on, and competition for, natural resources, compromising the functional integrity of ecosystems and the services they provide. The team within the Wyss Academy for Nature's Hub East Africa works to promote the coexistence of people and nature by preserving the connectivity, functionality, and health of ecosystems. They aim to leverage the co-benefits of biodiversity for the wellbeing of both humans and the ecosystem. They are active in Kenya and Madagascar's wetland, forest and semi-arid biomes. Their incubators focus on ecological and socio-economic systems, integrating technology and the diversification of livelihoods with the preservation and sustainable use of natural assets critical to people, wildlife and ecosystem health.



**Locations/regions:** The greater catchment area of the Ewaso Ng'iro river in central and northern Kenya, and the humid forest landscapes in north-eastern Madagascar

**Population:** 55 million in Kenya; 29 million in Madagascar

**Biodiversity:** The semi-arid lowland plains around Mount Kenya are dominated by bushland and grassland habitats that are home to a high diversity of wildlife, including large mammals such as elephants, rhinos, and big cats. Madagascar is one of the world's most important biodiversity hotspots, with a large number of endemic species, especially in the last remaining large areas of humid forest on the eastern escarpment.





Opening of the Hub East Africa office in Kenya and visit of Wyss Academy for Nature Board members, among them Hansjörg Wyss, in Nanyuki, Kenya  
Photo: James Mwamisi

Presentation of certificates to iLab project leaders who completed the theoretical and practical training courses offered in cooperation with The Full Circle Initiative, in Madagascar  
Photo: The Full Circle Initiative



## Main achievements in 2023

### 1. Growth in Hub East Africa

The Wyss Academy has grown in Hub East Africa, increasing the scope and coverage of its operations in Kenya and Madagascar. This year, the Hub expanded its talented team and enhanced the diversity and strength of its partnerships, allowing for trans-disciplinary and cross-sectoral collaboration between different organizations. This will contribute to the urgently needed positive impact on people and nature. The implementation of strong monitoring, learning and evaluation systems underpins the foundation of the Hub's work, allowing the team to adapt their approaches to achieve their goals.

### 2. Shared visions created for all Solutionscapes

A shared vision for each one of Hub East Africa's three Solutionscapes was defined, serving as a guiding north star to their work. In Madagascar, a multilevel visioning process resulted in a "Plan for a better life". The Local Committee for Transformation and a multidisciplinary coalition for change are collectively driving efforts to reach these aspirations. In Kenya, the Hub team—in collaboration with multiple partners—achieved a shared vision that cuts across counties and community conservancies for Solutionscape 1, and a localized shared vision with partner **CETRAD (Centre for Training and Integrated Research in ASAL Development)** for Solutionscape 2 in the Gambella Wetland, paving the way for their sustainable management. They also built a coalition willing to support change with representatives from community groups, government institutions, county governments, NGOs, conservancy managers, academic institutions and private sector partners.

### 3. Shared systems understanding in all Solutionscapes

Hub East Africa incubators are developed based on the team's shared understanding of the systems they operate in. Using a sensitivity analysis tool, they developed a shared understanding of system dynamics for all three Solutionscapes in northern Kenya and Madagascar. Levers of change have been identified and prioritized, so that action can meet the urgent need for transformations across the landscapes. In Kenya, two Hub-facilitated workshops focusing on water scarcity and climate change, and monitoring using digital twin technology in the years to come, integrated the Wyss Academy's transdisciplinary research teams into the landscape.

### 4. Impact in all Kenyan incubators

Each one of the five incubators in Kenya has achieved impact. The Hub team has demarcated seven dual-purpose corridors, facilitating movement across the landscape. Additionally, achievements such as digging 50,000 semi-circular bunds in Laikipia County, county spatial planning, and critical natural asset mapping now secure access to natural resources, all of which have local, county and national governance systems to support their sustainable management. Through collaborative efforts, these incubators reinforce each other, creating positive feedback loops that accelerate systemic transformation.

### 5. Scaling up innovation

An initial pilot of 5,000 semi-circular bunds, dug in response to a request from the youth-led **Green Earth Warriors** group in the Naibunga Community Conservancy, has demonstrated huge potential for scaling and innovation. To support the sustainability of this initiative, innovative tripartite governance mechanisms—household, formal and customary—now oversee more than 50,000 bunds with the aim of getting to 100,000 bunds in 2024. Integrated within this initiative is technical expertise from **Justdigg**, and robust monitoring from the Wyss Academy's Interdisciplinary Research Project on Water Scarcity.

### Interview with Sheila Funnell, Head of Innovation and Impact at Hub East Africa

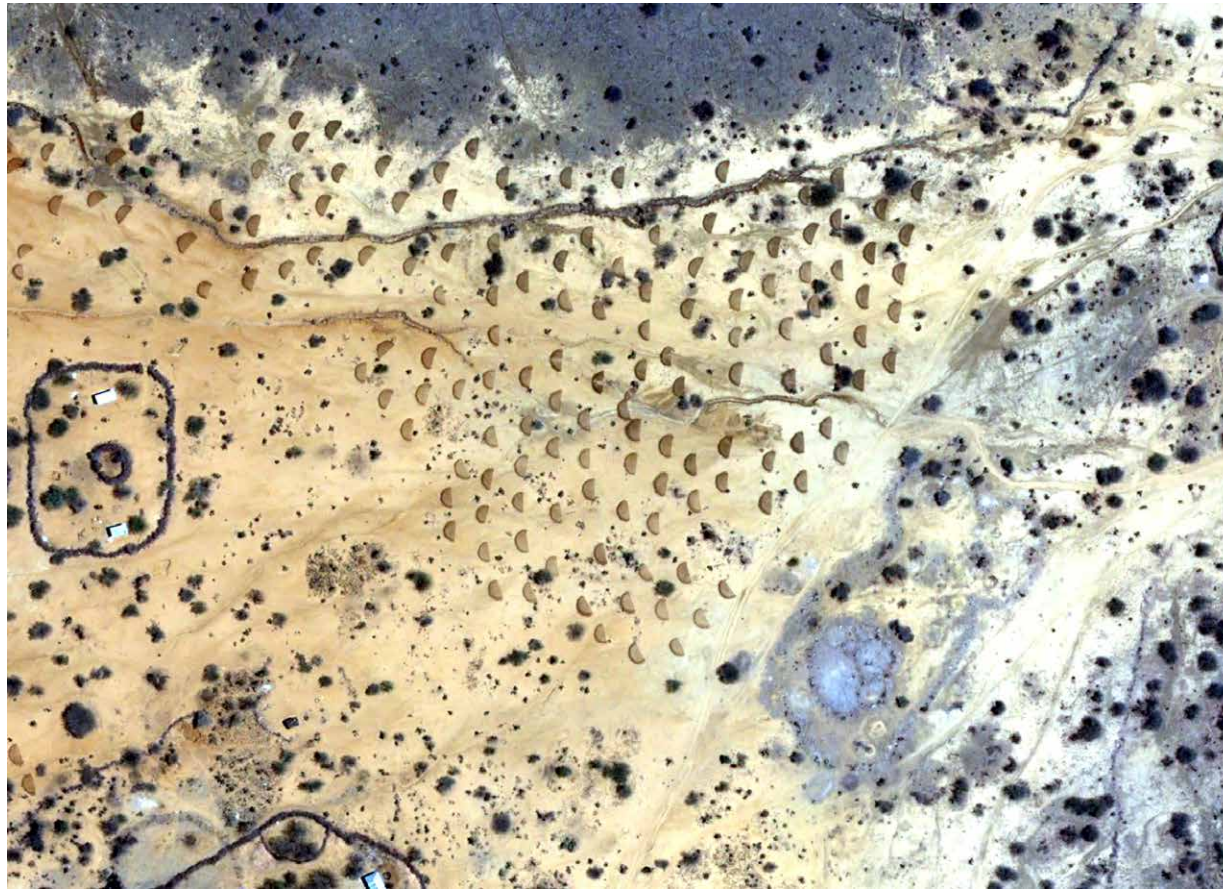
Headed by Dr. Benson Okita



Watch on YouTube







Impactful transformation: The evolution of the semi-circular bunds in 2023, from March (left) to December (right), in Nkirashi, Kenya  
Photo: Airbus and Pléiades Neo



The Green Earth Warriors of Laikipia County built a coalition for change: including the Chui Mamas, the Twiga Mamas and the Naitutum Women, in Kenya  
Photo: James Mwamisi

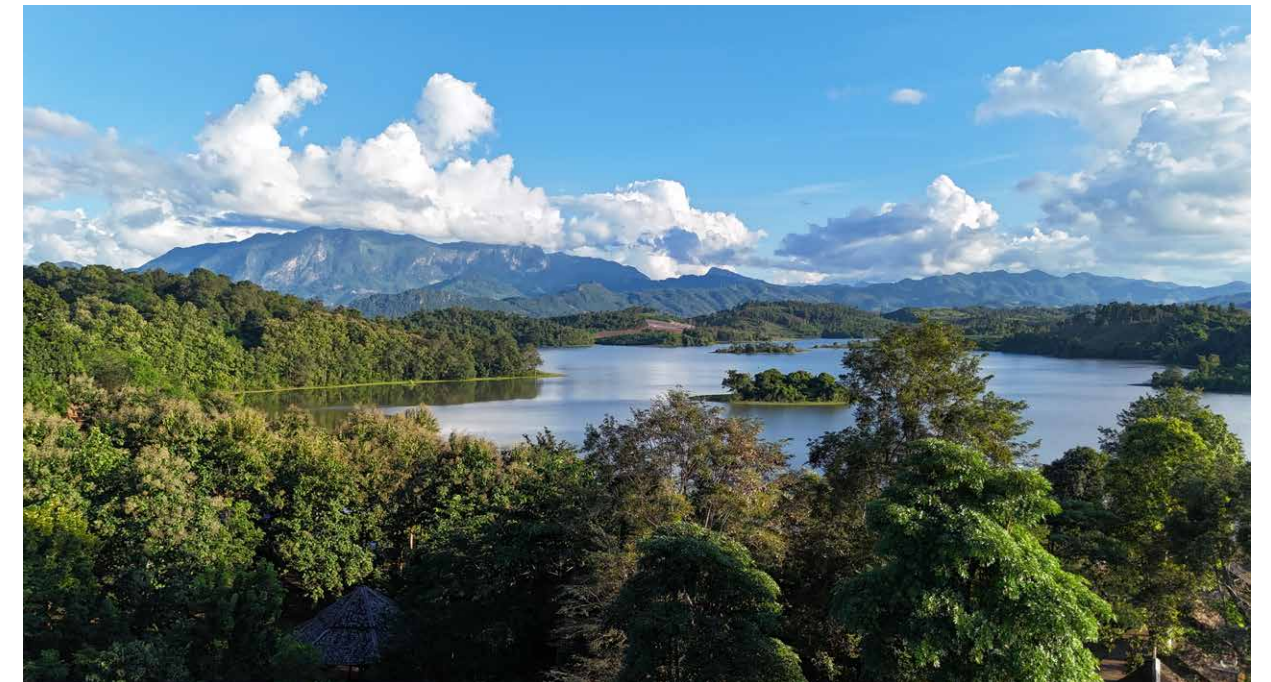


Antony Wandera, Projects Manager at Hub East Africa and Nentema Ntaiya, Secretary and Head of Programs at the Green Earth Warriors, on site at the Naibunga Community Conservancy in Laikipia county, Kenya  
Photo: Kelah Kathure



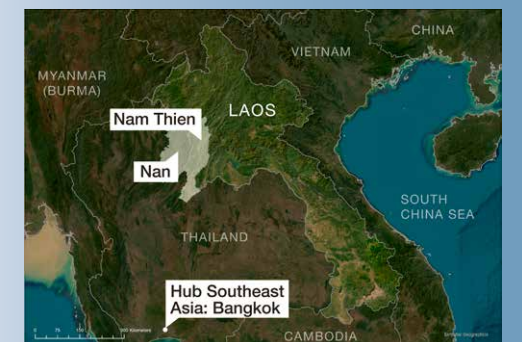
Regional Hubs

# Hub Southeast Asia



Protected area currently under pressure, in Nam Tien, Laos  
Photo: Andreas Heinemann

Many countries in Southeast Asia face significant challenges in protecting the environment and the rights of local communities. That is why the core activities of Hub Southeast Asia, led by Dr. Horst Weyerhäuser, revolve around establishing connections between research institutes, scholars from diverse backgrounds, the private sector, local communities and colleagues from the local and national government. Together with their stakeholders, they want to collaboratively develop pathways and solutions that empower the population and the governments to protect and enhance biodiversity while improving livelihoods in the region. Their focus of work is Sayaboury, Laos, and on expanding their research efforts into neighboring countries. Complementary activities have also been initiated in Nan, an adjacent area in northern Thailand.

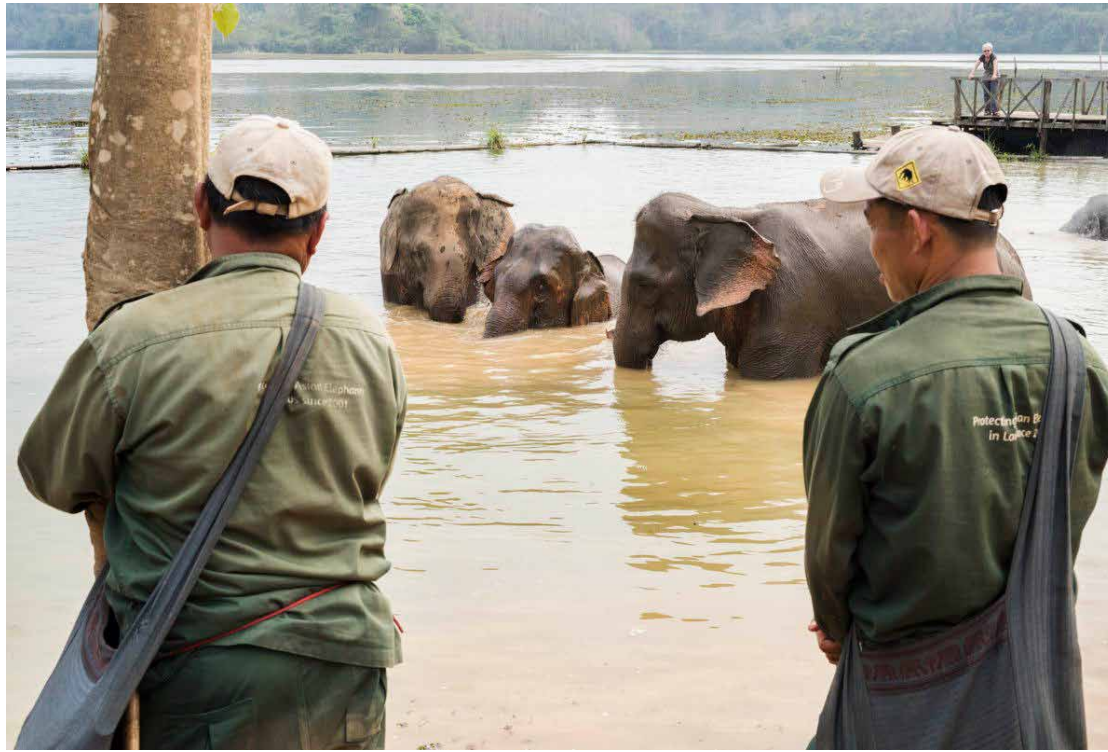


**Location/region:** Different landscapes in Laos as well as northern Thailand

**Population:** 7.5 million in all of Laos

**Biodiversity:** Laos is a biodiversity hotspot of global relevance. It is home to many endangered species, pristine forests, rich aquatic resources, and an exceptionally vast agrobiodiversity.





Elephants in the Nam Tien provincial protected area, in western Laos  
Photo: Elephant Conservation Center

## Main achievements in 2023

### 1. Office and key partnership established

In 2023, the Hub signed a hosting agreement with the **Centre for People and Forests in Southeast Asia (RECOFTC)**. This partnership is exciting because the visions and missions of this organization align very well with Wyss Academy's. The new partner also has a presence in all countries in the region and currently provides office space for our team in Bangkok, Thailand. Situated at the premises of Kasetsart University, the Hub team can also tap into the resources of this regional center of excellence in Agriculture and Forestry Research. Staff recruitment successfully started in 2023 with three colleagues now based in Bangkok, and the team plans to increase the office to five full-time staff by the end of 2024. To facilitate the development of the Lao Solutionscape, temporary office space has been acquired in Vientiane. A formal agreement with the National University of Laos also started to be prepared, to ensure exchange and local capacity building, as well as to provide a future home for the Wyss Academy's activities in Laos.

### 2. Partnership for elephant and habitat conservation in Laos

Hub Southeast Asia has launched a partnership with the **Elephant Conservation Center (ECC)** in Sayaboury, Laos. Located in Nam Tien, one of the 200 provincial protected areas increasingly under threat, the ECC provides a home to 10% of Laos' captive elephant population. It serves as the basis for rewilding and supporting the gene pool of the dwindling wild ele-

phant population. Through this partnership, various innovative species and habitat conservation approaches with co-benefits for communities are being tested and implemented. This includes combining traditional and scientific knowledge in a mahout-to-ranger program and piloting a new research-based business model for conservation focused on eco-tourism.

### 3. Agrobiodiversity and business: knowledge sharing and new partnership

To document and share local and scientific knowledge about non-timber forest products (NTFP), the **Pha Khao Lao online platform** was further developed. It now includes information on the biology, distribution, and possible use of over 1400 species. This ensures the preservation and sharing of critical knowledge, providing a foundation for the development of NTFP value chains. Together with the **Centre for Development and Environment (CDE)**, Hub Southeast Asia has also established a new partnership with the organization **Swisscontact** and identified key promising NTFP production chains for further activities in 2024.

### 4. Shared understanding of the Nam Tien Solutionscape in Laos

Through a series of engagement events with a wide range of local and national stakeholders, a shared understanding of the issues and problems in Nam Tien and protected areas in general was developed, to be used as a basis for our ongoing visioning processes.

Monitoring of planted trees as part of the Trees4All initiative, in Nan, Thailand  
Photo: Andreas Heinemann



The respective data and information are being publicly shared in various formats and channels to reach different audiences. This includes the **ESS App**, which targets researchers, and the **Nam Tien Solutionscape StoryMap**, designed for a broader public audience, both of which were developed in collaboration with the CDE Laos. Nam Tien is the site of Hub Southeast Asia's partnership with the **Elephant Conservation Center (ECC)** – see above, under 2.)

### 5. Trees4All pilot in Nan Province, Thailand

The landscape in Nan province in northern Thailand shows degradation due to unsustainable farming practices in the past three decades. Partnering with **RECOFTC** and with the **Trees4All** initiative, Hub Southeast Asia has developed an innovative finance mobilization mechanism for planning and managing multipurpose trees in Nan. By the end of 2023, more than 100 farmers had joined, and roughly 10,000 trees had been planted. The community-led tree nursery established in 2022 provides seedlings, and an online portal makes it possible to monitor the trees planted. These activities in Thailand are of great relevance for our Solutionscape in Laos, which is located just across the border. Lessons learned from Thailand's much earlier exposure to the negative impacts of a boom-and-bust cash crop cycle allow for a more sustainable approach that balances livelihood and income improvements with sustainable stewardship of an important landscape and water reservoir.

### Interview with Dr. Pin Pravalprukskul, Programme Manager at Hub Southeast Asia

Headed by Dr. Horst Weyerhäuser



Watch on YouTube





Regional Hubs

# Hub Bern

A local farmer explains the challenges faced when organic soil shrinkage leads to overfilling with mineral soil, in the Canton of Bern, Switzerland  
 Photo: Natalia Peralta



Located in the heart of Switzerland, Hub Bern, led by Dr. Olivier Jacquat, is dedicated to counteracting the loss of biodiversity and promoting sustainable human–nature interactions in ecologically sensitive areas. As a mountainous and agricultural region, Bern is significantly impacted by global climate change, experiencing more frequent dry summers, heavy precipitation, high-temperature days, and snow-poor winters. The team focuses on fostering positive transformations to address these challenges. Its current portfolio includes 15 different projects, including sustainable energy systems, strategies to achieve carbon-neutral tourism, and progressive steps toward a more sustainable food system. All their initiatives are supported and implemented in close collaboration with the Canton of Bern.



**Location/region:** Canton of Bern, Switzerland

**Population:** Over 1 million

**Biodiversity:** The Canton of Bern boasts diverse landscapes, habitats, and species due to altitude variations and geological/climatic differences. Despite efforts to preserve biodiversity, the quantity, quality, and connectivity of ecologically valuable habitats have significantly decreased in recent decades. Factors such as soil sealing, intensified land use, nutrient and pesticide input, light pollution, and uniform private garden designs contribute to habitat fragmentation and biodiversity decline.





View of the Grosses Moos region from Mont Vully, in the Canton of Bern, Switzerland  
Photo: Natalia Peralta

## Main achievements in 2023

### 1. Pathways toward a climate neutral Oberland-Ost region

Governmental bodies established the objective of making this tourist region climate neutral. To support the achievement of this goal, in a first phase, the project team led by the **Centre for Development and Environment (CDE)** implemented a participatory development process, bringing together a diverse group of actors from the region, as well as researchers and representatives of public authorities. By carrying out a joint problem and situation analysis, they formulated visions of what a climate neutral region might look like and outlined pathways toward reaching this desirable future. Details of this collaborative work are presented in a **brochure** that can be used as a compass for taking action and initiating steps necessary for change. In the subsequent implementation phase, which is managed by the **Office for the Environment and Energy of the Canton of Bern** and closely supported by the **Regional Conference Oberland-Ost**, innovative pilot projects are to be realized in the region.

### 2. New project in the Grosses Moos region

The Grosses Moos region is known to be “Switzerland’s vegetable garden”. Being a drained former wetland, it is characterized by organic soils and faces challenges such as high carbon emissions, loss of organic matter, and a decline in biodiversity. A new project aims to develop and test win-win-win solutions that benefit biodiversity, agricultural production, and

the climate. In 2023, workshops were organized to exchange ideas and gain a better understanding of the diverse perspectives on possible future developments in the Grosses Moos region. Together, representatives from agricultural organizations, environmental NGOs, research institutions, and public authorities worked to create a common systemic understanding and brainstorm possible incubator projects, which will be further developed in 2024.

### 3. Effective visitor management in Bern’s nature parks

Bern’s regional nature parks are home to numerous biodiversity hotspots. Located in appealing landscapes, they attract many visitors. In 2023, initiated by the nature parks, key stakeholders active in visitor management came together and signed an agreement on principles for an integrated and jointly implemented visitor management in sensitive and highly frequented areas. Rangers were assigned a crucial role in sensitizing visitors. The initiative aims to increase awareness among visitors, promote compliance with existing rules of conduct, and strengthen cooperation among various stakeholders.

### 4. Wood ash: A promising new raw material for a circular economy

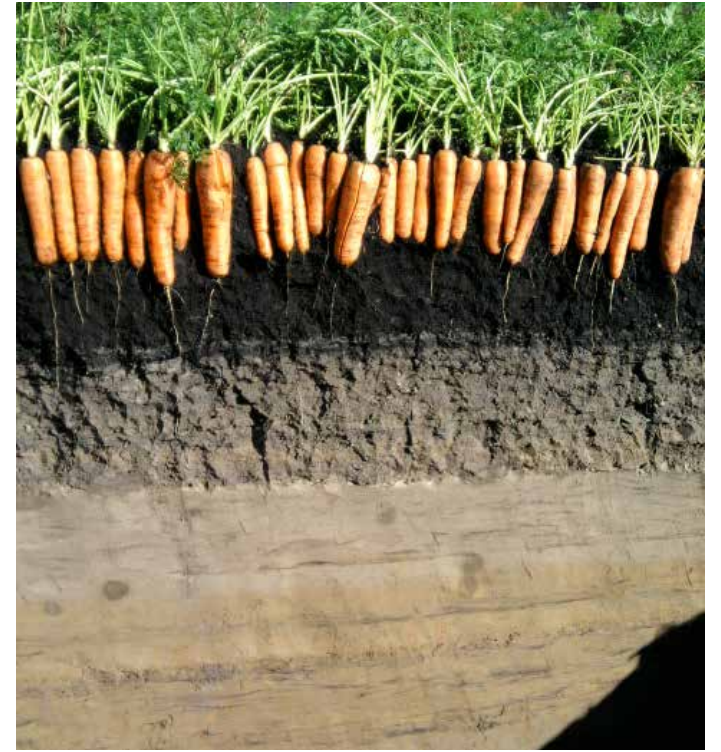
Every year, 75,000 tons of wood ash are generated in Switzerland. Currently, this is mainly deposited in landfills. However, research conducted with the Wyss

Academy’s support has shown that wood ash has great potential as a substitute for limestone in the cement industry. The chemical-mineralogical properties of different types of wood ashes were analyzed, and promising uses in the construction industry and beyond were identified. Feasibility tests are now required. By using wood ash as a secondary raw material, material cycles can be closed, contributing to an improved carbon balance in cement production.

### 5. Strengthening regional value chains around forest and wood

Hub Bern implemented six incubator projects aimed at preserving or enhancing forest benefits while simultaneously improving the regional wood value chain. Progress has been made in various ways. This includes developing innovative wood products from hard-to-sell raw wood assortments, sensitizing municipalities to the sustainable use of local wood and forests and promoting the use of regional timber in construction by providing practical solutions for the complex coordination and logistics tasks involved. A few **short videos** present more details on regional value chains.

A soil profile in a carrot field reveals how thin the remaining organic soil layer has become, in the Canton of Bern, Switzerland  
Photo: G. Brändle



Interview with Cyrill Hess,  
Research Scientist at Hub Bern  
Headed by Dr. Olivier Jacquat



Watch on YouTube









Competence Centres

# Research & Innovation



To achieve our mission, we believe it is crucial that together with our stakeholders, we arrive at a shared understanding of human-environmental systems and the different visions of the future proposed by various actors – and uncover pathways of transformation towards a common vision. In addition to academic research, knowledge at the Wyss Academy is enriched by the insights gained from local and Indigenous actors.

Our five research teams – the youngest having started in July 2023 – work in fields such as sustainable land use, political economy, governance, biodiversity conservation and climate change. Directly tied into the work being performed at our **Regional Hubs** and at the **Synthesis Center**, they help to assess solutions and feed scientific insights into practice and policy.

Together with partners from these areas, they implement transdisciplinary projects.

Local stakeholders, research scientist Svitlana Lavrenciuc, and PhD student Herizo Andriambololona assessing the live biomass content in the soil of a rice field near Fizon, Madagascar  
Photo: Julie Zähringer



Climate Scenarios  
for Sustainable  
Development



Land Systems and  
Sustainability  
Transformation



Integrative  
Biodiversity  
Conservation Science



Environmental  
Governance and  
Global Development



Political Economy  
and Sustainable  
Development





## Research &amp; Innovation

# Climate Scenarios for Sustainable Development

The Research & Innovation team on Climate Scenarios for Sustainable Development, headed by Prof. Dr. Édouard Davin, explores the intersection of climate, land use, and biodiversity. They strive for a better understanding of the terrestrial biosphere's role within the climate system. Their mission is to produce knowledge that can be directly used to create solutions for tackling climate and biodiversity crises. Their work is guided by three overarching questions: What are the risks of climate change to terrestrial ecosystems and people? How can nature-based approaches, among other strategies, address these risks? What is the potential for scaling up these strategies, and what are the resulting co-benefits and tradeoffs with sustainable development objectives?

Interview with Dr. Marie-Estelle Demory, Senior Research Scientist in the Climate Scenarios for Sustainable Development Research & Innovation team

Headed by Prof. Dr. Édouard Davin

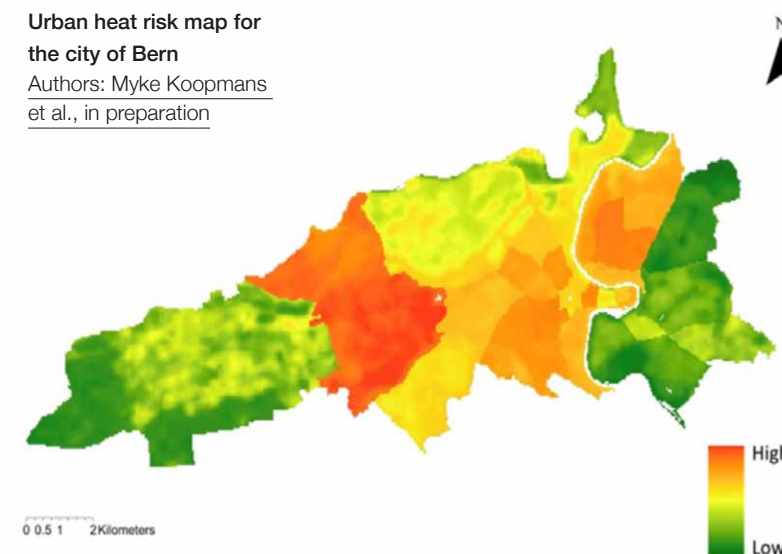


Watch on YouTube



Urban heat risk map for the city of Bern

Authors: Myke Koopmans et al., in preparation



## Main achievements in 2023

### 1. New master course on nature-based solutions

The Climate Scenarios for Sustainable Development team has launched a new master-level course at the University of Bern, titled “Nature-based Solutions for Climate Change Adaptation and Mitigation”. In its first edition, 17 students attended the lectures, engaged in group projects and followed the presentations of external guests from industry, civil society and academia. A field excursion to one of Hub Bern’s incubators was also part of the program. The course was rated very positively by the students and increased the visibility of the team’s research and work in the field.

### 2. Urban heat in Swiss cities: New insights gained

Within this project, the impact of urban trees on surface temperature in five Swiss cities: Basel, Bern, Geneva, Lausanne, and Zurich was quantified. A combination of satellite and socio-economic data was utilized to create a risk mapping approach to identify high-risk areas. De-greening and re-greening scenarios were then applied to assess the resulting effect on heat-related risk in the cities. Two workshops were organized as part of this project: one with a scientific focus and another with policymakers.

### 3. Future scenarios of forest microclimates created

Forest microclimates, such as temperature and humidity beneath the forest canopy, can be very different from the climate in nearby open areas. These variations impact the living conditions for many organisms. However, future scenarios for these forest microclimates were lacking. Using a process-based

model, this gap was addressed by generating global projections of future forest microclimates. This marks a crucial step toward anticipating the impacts of climate change on forest biodiversity.

### 4. Future changes in biodiversity assessed

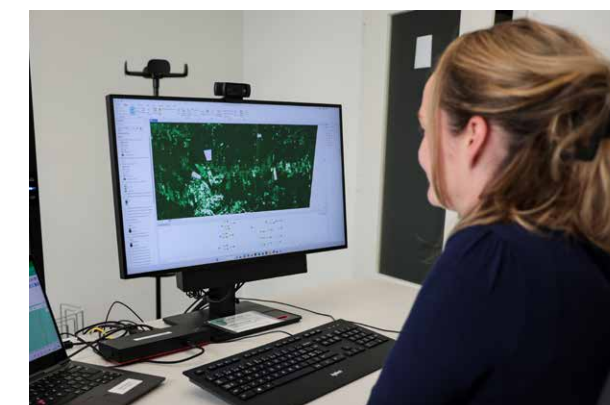
Understanding how climate change will impact future biodiversity is crucial. Additionally, land use change is also expected to be an important driver of these changes. Using species distribution modelling, the combined effect of climate and land use change on biodiversity was assessed on a global scale for terrestrial mammals, amphibians, and birds. This work was presented at various international conferences throughout the year.

### 5. Hydrological co-benefits of landscape restoration identified

Storing carbon in the soil is a promising climate mitigation strategy, but its potential effect on soil hydrology is still largely unknown. Using a global land surface model, it was found that this nature-based approach increases soil water availability. These results provide insights into how local restoration techniques, such as semi-circular bunds in semi-arid landscapes, could impact water resources and combat water scarcity.

Myke Koopmans, Research Associate at the Wyss Academy, evaluating the effect of agroforestry systems on biogeophysical factors, as part of the ID Agroecology project in the Madre de Dios region, in Peru

Photo: Natalia Peralta







Research &amp; Innovation

# Land Systems and Sustainability Transformations

Land and its use play a central role in transformations toward sustainable development. Land use is a central element of any socio-ecological system, and it is influenced by global claims and decision-making processes. The Research & Innovation team on Land Systems and Sustainability Transformations headed by Prof. Dr. Julie Zähringer applies transdisciplinary approaches, integrating methods from social science and humanities all the way to natural science and quantitative spatial analysis. This enables them to investigate changes in land use, assess ecosystem services, and evaluate human well-being in and around land zoning for agricultural purposes, mining investments and conservation efforts. Their focus is to support the urgently needed shift toward sustainability by ensuring multifunctional landscapes that also promote social justice.

Interview with Svitlana Lavrenciuc, Research Scientist in the Land Systems and Sustainability Transformations Research & Innovation team  
Headed by Prof. Dr. Julie Zähringer

[Watch on YouTube](#)

Wyss Academy for Nature  
researchers exploring a  
paddy rice field in Laos  
Photo: Eda Elif Tibet

## Main achievements in 2023

### 1. Governance assessments in the Peruvian Amazon

To better understand what type of conservation works and then accordingly streamline the Wyss Academy's interventions, the team, together with colleagues from the Hub South America, assessed the impact of different governance types in the Peruvian Amazon, especially on forest loss and its associated carbon emissions. The assessed governance regimes included protected areas, Indigenous lands, and non-timber product concessions. The research focused on the timeframe 2000 until 2021. Logging and mining concessions were also examined for comparison. Using counterfactual methods, the team simulated scenarios without these governance regimes to understand their true impact on forest loss and carbon emissions. While protected areas were found to be the most effective at avoiding forest loss, the study has also provided robust evidence of the long-term positive impacts of potential alternative conservation measures, such as Indigenous lands and non-timber product concessions on both forest loss and carbon emissions. This finding is key to achieving various targets of the Kunming-Montreal

Global Biodiversity Framework and the UN Framework Convention on Climate Change.

### 2. Data collection in northeastern Madagascar

During field work in northeastern Madagascar, the team applied a qualitative interview guide rooted in environmental anthropology to investigate local perceptions of soil values and cross-generational changes. This has resulted in rich insights into Betsimisaraka culture, and many details on local environmental dynamics have emerged. The interviews revealed the complexity of the social fabric and its connections with soil. Narratives unfolded that depict soil as a pivotal element in the intricate web of social life which profoundly shapes interpersonal connections and significantly influences the interviewees' sense of identity and belonging.





A farmer guides the research team on a visit to the buffer zone of the Masoala National Park, in Madagascar  
Photo: Svitlana Lavrenciuc



A farmer tends to a vanilla vine cultivated within an agroforestry system, in Madagascar  
Photo: Svitlana Lavrenciuc



Julie Zähringer (at center) at the signing of the Letter of Agreement with the Faculty of Environmental Sciences of the National University of Laos  
Photo: Eda Elif Tibet

### 3. Exploratory field trip to northern Laos

The team developed a collaboration and signed a Letter of Agreement with the Faculty of Environmental Science of the **National University of Laos**. This lays the foundation for the successful implementation of a new project for just conservation titled “BridgingVAL-UES”, which is funded by **Biodiversa+**. During their trip to Laos, the team also engaged with officials from government authorities responsible for agriculture and forestry at provincial and district levels, as well as with nongovernmental agencies and communities from seven villages surrounding the Nam Et-Phou Louey National Park. This exploratory field visit provided invaluable insights into the local context and the changing dynamics of livelihoods and land systems.

### 4. Long-term PhD research conducted in Madagascar

What pathways could lead to a more just and equitable approach to forest conservation in northeastern Madagascar? This broad question guided almost a full year of research by one of the team’s PhD students. The time invested in the study region allowed for close collaboration with the Wyss Academy for Nature’s local team and led to an in-depth understanding of the local context. 80 semi-structured interviews were conducted, unveiling insights into the dynamics of knowledge, power, and decision-making within the case study projects. For example, it was found that while the investigated projects aimed to include local knowledge, the power to decide if and how this knowledge is applied still stayed with people steering the projects from outside the region of intervention. Shifting some of the decision-making to the local level might not only empower local staff, but also help decrease the

distance between the people affected by the projects’ actions and those making the decisions.

### 5. Teaching at the University of Bern

In collaboration with the **Centre for Development and Environment (CDE)**, the team taught a master’s-level seminar in Geography at the University of Bern titled “Global Policies on Land”. Students conducted in-depth case studies on Reducing Emissions from Deforestation and Forest Degradation (REDD+), the Great Green Wall, the EU Regulation on Deforestation-Free Products, and the Global Biodiversity Framework. During the IGS North-South Summer School, the team also helped PhD students from Switzerland and various African countries strengthen their capacities regarding “Common-Pool Resources in a Globalized World”.





# Integrative Biodiversity Conservation Science

To rethink conservation, the Research & Innovation team on Integrative Biodiversity Conservation Science, led by Prof. Dr. Margaret Owuor, experiments with new approaches and focuses on addressing three main questions: How can the management of different conservation areas be designed to benefit both nature and people? How can conflicts between conservation and local livelihoods be turned into co-benefits? Which innovative institutional arrangements and partnerships can render nature conservation beneficial for local communities? Using inter- and transdisciplinary approaches, this team analyzes ecosystem services, polycentric governance, nature-based solutions, and sustainable finance for nature. They combine integrative and fundamental science with engagement and involvement methods to maximize co-benefits for the environment and society. Furthermore, they incentivize cross-scale involvement in terrestrial and aquatic biodiversity conservation.

Interview with Dr. Cornelius Okello, Senior Research Scientist in the Integrative Biodiversity Conservation Science Research & Innovation Team

Headed by Prof. Dr. Margaret Owuor



Watch on YouTube



Group photo during a field trip in Bern, with colleagues from Hub Bern

Photo: Urs Känzig-Schoch, Wirtschafts-, Energie- und Umweltschutz, Canton of Bern



## Main achievements in 2023

### 1. Support for research and teaching

The team was established and has been fully functional since February 2023. From then on, they engaged in different activities with other Wyss Academy units, including Hub East Africa, other research teams and the Global Policy Outreach & Synthesis team, building a joint understanding and solid basis for collaboration. They also launched a seminar series and designed a bachelor's course on "Integrative Biodiversity Conservation Science", which was presented to the Institute of Ecology and Evolution at the University of Bern, and which will be included in the curriculum from the spring semester of 2024.

### 2. Facilitation of science-based policy discussions

The team's research assesses governance capacity for translating the Global Biodiversity Framework into sustainable and equitable practices within biodiversity governance networks. Significant milestones were achieved in 2023. Contributing to various global assessment research, the team highlighted significant trends in confronting the biodiversity loss curve and advocated for the transformation of biodiversity conservation science to become more responsive to diverse societal and policy needs. They argued that biodiversity loss is not just a crisis of biodiversity, but more fundamentally a crisis of existing governance capacity to deal with it. By publishing journal articles and facilitating science-based policy discussion on the implementation of the Global Biodiversity Framework in diverse local contexts both within the Wyss Academy and at international conferences, they laid the foundations for further research and outreach activities within the coming years.





Working with members of the Hub East Africa team and local authorities to identify societal and policy needs in addressing landscape challenges, Kenya  
Photo: Laikipia County

### 3. First steps in monitoring solutions for water and biodiversity conservation

As part of the research project on nature-based solutions and ecosystem services, the team started to monitor the impact of semi-circular bunds on biodiversity conservation and water resources and how they contribute toward a healthy, functional landscape. As an initial step, in collaboration with their partner **Natural State**, they designed a set of indicators for monitoring the ecological and social impacts of the semi-circular bunds. They worked with partners from the **University of Nairobi** and the **National Museums of Kenya** to carry out an ecological dry season baseline survey using different biodiversity indicators where the bunds are located. The results of the study show an abundance of biodiversity (vegetation, invertebrates, amphibians, birds and mammals). The study also identified the socio-economic needs of local communities and the sources and extent of human–wildlife conflicts in the area. The team used the eDNA technique to discover and further identify biodiversity within the microbiome of the semi-circular bunds. This was done in collaboration with SimplexDNA, who supported them with DNA sequencing.

### 4. Global North–South and South–South collaboration strengthened

In 2023, the team initiated, facilitated and realized a collaborative framework with the University of Nairobi through the **Wangari Maathai Institute for Peace and Environmental Studies** in Kenya. This collaboration

represents a milestone for the Wyss Academy's presence in Kenya. It will strengthen research, education, training, and outreach activities between institutions in the Global North and South in biodiversity conservation, climate change, governance, and sustainability. It will also merge the University of Nairobi's substantial and diverse expertise with the Wyss Academy's unique approach to translating knowledge into action.

### 5. PhD projects initiated

Two PhD students have defined their research topics and completed initial fieldwork. The first dissertation focuses on ecosystem services assessment and scenario building in Lamu, Kenya, while the second one focuses on seagrass blue carbon assessment for sustainable financing in Kenya and South Africa. These two topics contribute to the team's objective of maximizing co-benefits for humans and nature using the Nature's Contribution to People framework of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.



Planting mangrove seedlings in a community mangrove restoration site during a scoping field trip in Lamu, Kenya  
Photo: Cornelius Okello



Seagrass surveying for blue carbon quantification in Mkokoni, Kenya  
Photo: Willy Osore





Research &amp; Innovation

# Political Economy and Sustainable Development

The Research & Innovation team on Political Economy and Sustainable Development, headed by Prof. Dr. Kai Gehring, develops theories that combine economic knowledge with an interdisciplinary perspective. They test them rigorously, using modern quasi-experimental and experimental econometric methods. As part of their approach, they rely on a variety of data sources that extend beyond classical economic indicators and include spatial, historical, and text data. Two of their current key projects evolve around the role of narratives in enabling or preventing transformative change, and around the deforestation-free detection and mercury-free mining of gold in the Peruvian Amazon. In this research, they strongly rely on machine learning techniques, which they apply in natural language processing and in the analysis of spatial data such as satellite images.

Interview with Lina Götze, Research Associate in the Political Economy and Sustainable Development team

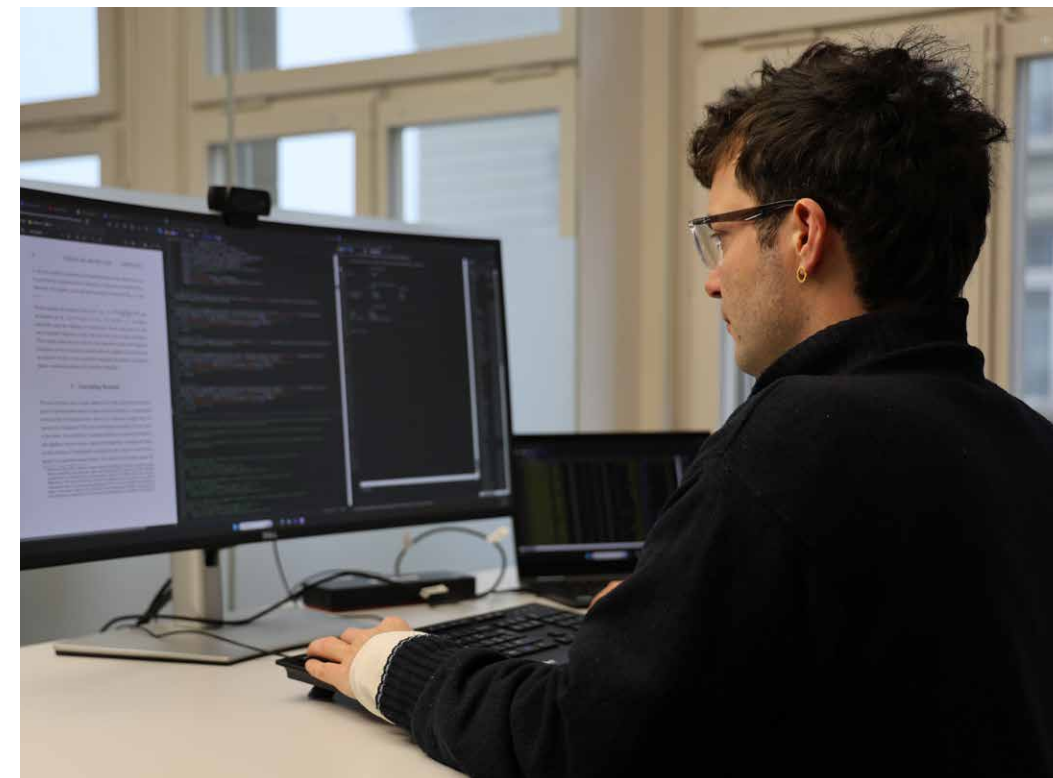
Headed by Prof. Dr. Kai Gehring



Watch on YouTube



Matteo Grigoletto, PhD Researcher in the Political Economy and Sustainable Development team leveraging various data sources to explore human behavior, Bern, Switzerland  
Photo: Daria Vuistiner



## Main achievements in 2023

### 1. Clean gold mining: Groundwork for future collaborations

In 2023, working together with Hub South America, the team made significant strides in promoting responsible gold mining in Madre de Dios, Peru. Through stakeholder workshops in Peru and Switzerland, they brought together miners, indigenous people, and experts, fostering future collaborations. They discovered that misconceptions about mining have influenced past decisions by the private sector, NGOs, and governments. To address this, they work to provide high-quality, data-driven evidence to guide future decisions and ensure responsible, sustainable mining practices.

### 2. A new way to conceptualize and measure narratives

The team's working paper about U.S. climate change policy narratives on X (formerly Twitter) in the period of 2010–2021 introduced a new approach to conceptualizing and empirically measuring narratives in textual data. Their analysis focused on stories that contain heroes, villains, and victims. They found that simpler stories with human characters, especially villain-focused ones, spread more widely. This trend is prominent in narratives used by populist leaders, and it impacts public climate policy discourse.





Team members Dr. Fernando Fernandez and Kattia Diaz, and Abraham Terrones from local partner CITE Minero listening to a miner speaking about the value of education for his concession  
Photo: Alejandro Portillo



Group discussion with members of academia on pressing challenges to artisanal mining, as part of a workshop organized by the Wyss Academy in Peru  
Photo: Juan Carlos Huayllapuma

### 3. New connections: Carbon and biodiversity monitoring and monetization

While working on carbon and biodiversity compensation in Northern Kenya, a pivotal moment in 2023 was a successful stakeholder engagement workshop that significantly contributed to fostering collaborative discussions and informing a newly outlined theory of change for this interdisciplinary project. The team's key learning was the identification of an extensive network of organizations already active in Kenya's carbon credit sector, leading them to pivot their strategy towards connecting with these groups to build synergies, notably with the [Laikipia Conservancies Association](#). This expansion was further consolidated by signing a memorandum of understanding with [Natural State](#).

### 4. Insuring Peace: Role of financial aid during droughts identified

This research team's [working paper revealed](#) that an insurance program in Kenya that offers financial aid during droughts effectively reduces conflicts, particularly among herders and farmers. Analyses of the period of 2001–2020 showed that insured herders travel less far from their ancestral homelands, which decreases resource disputes over contested areas. This highlighted the role of market-driven solutions in conflict mitigation, and the need for government agencies and NGOs to expand the accessibility of support to vulnerable groups.

### 5. Scientific publications

In 2023, two of the team's research papers were published in the Review of Economics and Statistics. The first one explores why Namibian households default on water payments, and tests interventions to encourage compliance. The second one provides evidence on the challenges of illegal resource production and trading in settings with low state capacity and recurrent group conflicts.





Research &amp; Innovation

# Environmental Governance and Global Development

Environmental Governance and Global Development is the most recent of the five teams working within Research & Innovation. Headed by Prof. Dr. Quynh Nguyen, who joined the Wyss Academy in July 2023, the team conducts rigorous research and prototypes theory-driven approaches within the field. They engage in the design and formulation of sustainable governance solutions for people and nature, thereby catalyzing positive change for all stakeholders. Their goal is to

become the key reference for impact-oriented research within their field. Additionally, they aspire to provide governance solutions for system transformation toward a mutually beneficial relationship between people and nature.



Soybean plants in Sayaboury Province, Laos  
Photo: Quynh Nguyen

Interview with Prof. Dr. Quynh Nguyen, Professor for Environmental Governance and Global Development



Watch on YouTube



Watermelon fields in Nam Tien provincial protected area, in Laos  
Photo: Quynh Nguyen



## Main achievements in 2023

### 1. Team recruitment completed

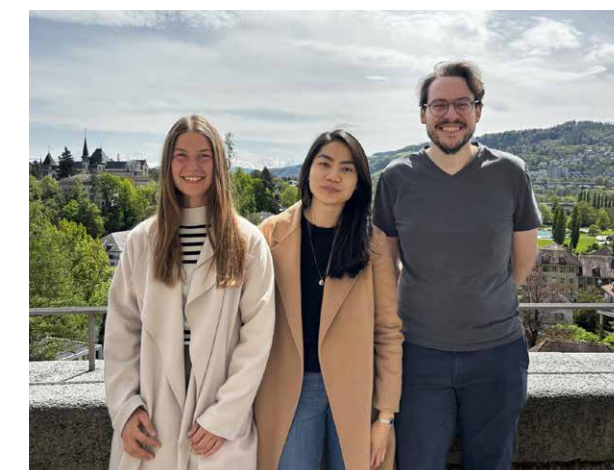
The Environmental Governance and Global Development team was formed during the second half of 2023. They have recruited and onboarded a skilled and dynamic group of researchers with diverse expertise and a fresh perspective on existing projects. Already fully operational, they look forward to contributing to the Wyss Academy's overall mission and strategic objectives with their research endeavors.

### 2. Project launched: Gender and water governance in Vietnam

Water pollution poses a significant challenge in Vietnam, particularly for women. Existing research has highlighted the potential of community monitoring in enhancing water quality. In a new project, the team will investigate how the gender composition of monitoring teams influences the effectiveness of community monitoring in reducing water pollution. To achieve this, they will implement a randomized control trial, using a self-developed ICT (Information and Communication Technology) tool. In March of 2024, they met with their local partners to kickstart the project. The conceptual work took place in 2023.

### 3. Scoping Mission in Laos

The team's first scoping mission to Laos in December of 2023 was a crucial step in the preparation of the upcoming stakeholder network analysis. The aim of the mission was to visit the Wyss Academy's Solution-scape in Laos and interact with the various actors involved. Collecting information was important to gain a deeper understanding of the different actors, networks and stakeholders, to understand the complexity of social network interactions in the region, and to prepare for data collection during the next phase.



Research team in Bern, Switzerland.  
From left to right: Ramona Michel, Stefano Jud, Quynh Nguyen  
Photo: Daria Vuistiner





Farmers harvesting coffee beans on the "Ten Paciencia" farm in the Madre de Dios region, Peru  
Photo: Natalia Peralta

## Research & Innovation

# Inter- and Transdisciplinary research

Through coordinated efforts, the Wyss Academy for Nature identifies and delineates potential opportunities for inter- and transdisciplinary projects. We build collaboration between researchers and innovators from various disciplines and—through the Wyss Academy Regional Hubs—with stakeholders and partners from the Global South. The aim is to identify and select the most promising areas and topics to achieve positive impact for people and nature. By placing strong emphasis on integrating different types of knowledge, including Indigenous expertise, and by focusing on real-world relevance and applicability, the Wyss Academy strives to deliver local results while maintaining a global focus.

Interview with Jürg Staudenmann, Transdisciplinary Research Coordinator



Watch on YouTube



Amazon nut seedlings at Camino Verde La Joya Reforestation Center, in Madre de Dios, Peru  
Photo: Natalia Peralta

## Main achievements in 2023

### 1. Pathways cleared for scaling up agroforestry in the Peruvian Amazon

In an interdisciplinary research project on agroecology, the project group established an extensive network of scientific and non-scientific partners in its focus region of Madre de Dios, Peru. At an initial workshop, they jointly identified value chain development as a key lever for scaling up agroforestry approaches in the region. On this basis, the Wyss Academy's Hub South America started an experiment in collaboration with an **innovative local farmer and entrepreneur**. The aim is to increase the commercialization of fruit pulp that is produced in Tambopata Province under an agroforestry system. Furthermore, the project team initiated an analysis of the history and status of agroforestry in Madre de Dios, including the creation of a geospatial database of existing agroforestry systems.

### 2. New partnerships for tech and data management

In 2023, the Wyss Academy invested in new strategic partnerships to strengthen the transformative nature of our inter- and transdisciplinary research. For instance, with **EPFL's EssentialTech Centre**, we want to identify potential technological levers to mitigate people-nature conflicts in Kenya. During an inaugural co-creation workshop held in the Naibunga/OI Donyiro region in October, colleagues from Switzerland and Kenya, together with pastoralists and other key local stakeholders, jointly facilitated the development of a common vision in support of conflict resolution and improved pasture governance. Furthermore, members of our interdisciplinary research project on payment for ecosystem services, together with representatives from communities and 21 conservation organizations, explored the potential of digital twin technology to enhance collaboration among local actors and enable impact monitoring.





Workshop to develop the inter- and transdisciplinary project on water scarcity in Isiolo, Kenya  
Photo: Cornelius Okello

### 3. Solutions for water and biodiversity restoration tested in Kenya

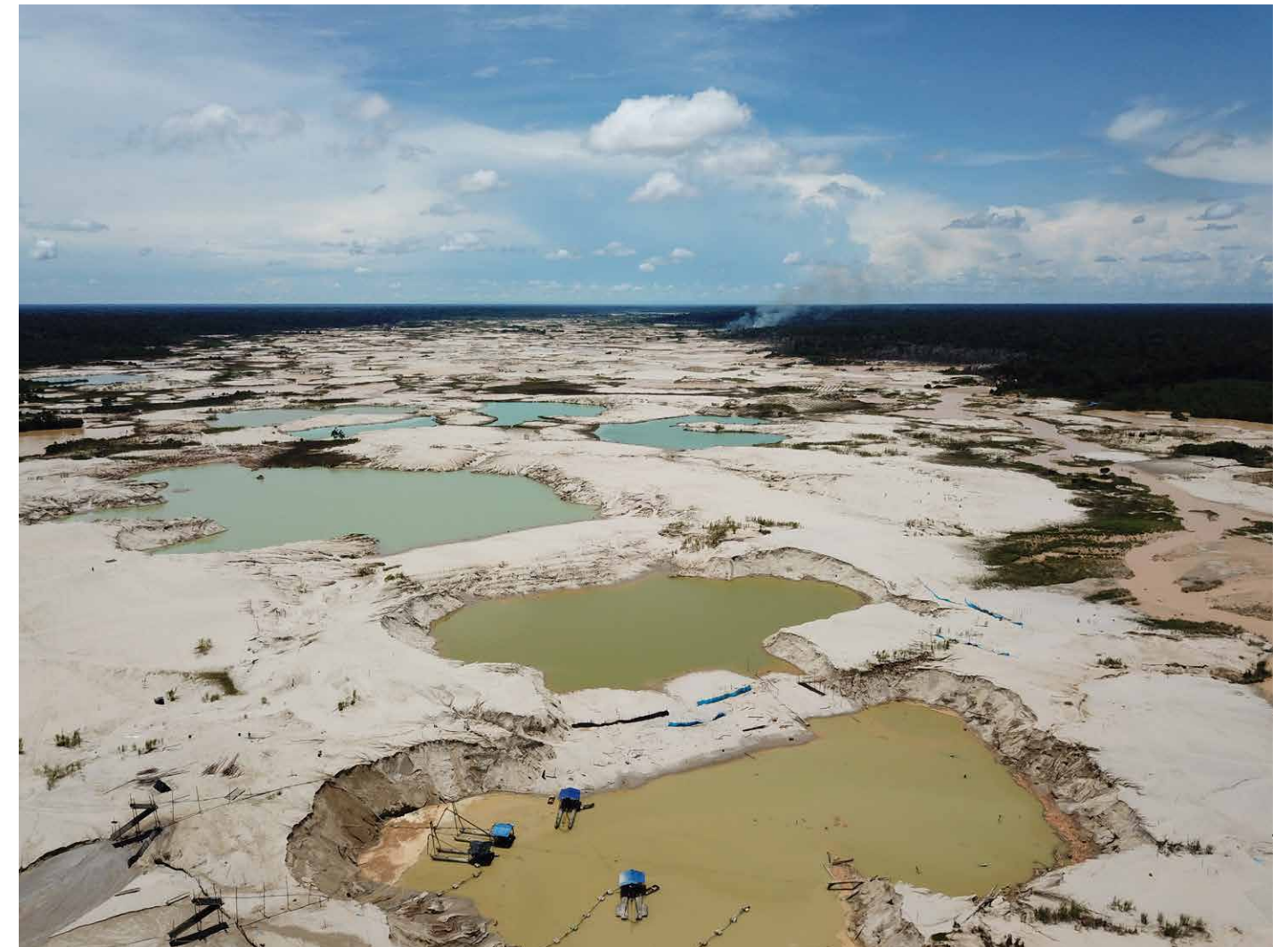
In June, the team of the Wyss Academy's transdisciplinary project on water scarcity, which includes both researchers and members of our Hub East Africa, engaged with local university partners, NGOs, county governments and community representatives to identify challenges related to water scarcity and climate change. Together, they developed solutions for water restoration and biodiversity conservation in Kenya's Ewaso Ng'iro North River basin. The semi-circular bunds dug in Laikipia County starting in February proved to retain surface water already during the first rainfall and seemed to have enhanced soil infiltration. A monitoring network installed in October started collecting scientific data on the role of the bunds in soil water restoration, serving the overall purpose of promoting wealthier people in healthier semi-arid landscapes and testing the potential of this restoration technique to be scaled up to the landscape level.

### 4. Potential for sustainable gold mining explored in Madre de Dios, Peru

Our research on mining strives to promote responsible practices across the gold value chain by merging scientific expertise with hands-on field experience and collaborating with local and global partners. The long-term vision is to strike a harmonious balance between human development and ecological preservation. In 2023, the transdisciplinary research team conducted literature reviews and several workshops to better understand potential to improve artisanal mining policies and promote mercury-free production. On that basis, further research will focus on the potential of transformed narratives around miners, alternative technologies to reduce deforestation, and engaging with stakeholders in the gold trade to encourage transparency and sustainability.

### 5. Applying Indigenous governance schemes to ecosystem conservation

While innovative Indigenous and community-led governance schemes receive increasing attention at the global level, questions related to challenges on the ground and to their conservation potential remain to be investigated. The question about their potential to make tropical forest management more just and responsible was put to debate in a thematic session convened by our transdisciplinary project team at the Conference of the International Association for the Study of the Commons in Nairobi in June 2023. The outcome has not only informed our continuing research in Madre de Dios, but also led to the appointment of the head of the Indigenous Governance project to co-lead a newly created task force on Indigenous and local knowledge in the context of UNEP's flagship Global Environmental Outlook 7 report.



Artisanal small-scale mining, Amazonia, Peru  
Photo: Pavel Martiarena, ©ACCA



Satellite images from 2010 (left) and 2019 (right) show how the landscape has changed as a result of gold mining activities near the Madre de Dios River, in Peru  
Images: © eoVision/Digitalglobe/EUSI, 2022





Global Policy Outreach & Synthesis team meeting in Bern, Switzerland  
Photo: Natalia Peralta

## Competence Centers

# Global Policy Outreach & Synthesis Center

The team of the Global Policy Outreach & Synthesis Center forges connections and bridges between diverse actors, from the local to the global level, in order to build a new societal contract around innovations for people and nature. Additionally, they support the synthesis of various perspectives and knowledge from academia, policy, and society. With an inclusive approach that includes the creation of safe spaces, they encourage curiosity and openness to experiment with and test new methods, and to challenge conventional thinking. Building on the evidence created and uncovered in such processes, they engage with various stakeholders, including the public and private sector, academia and society. In 2023, the team launched new initiatives, such as the youth-centered Changemakers Program, and engaged with youth as key stakeholders around central topics. Among them were the implementation of the Global Biodiversity Framework and the transformation of food systems.

Interview with Emine Ertugrul, Engagement Specialist at the Competence Center for Global Policy Outreach & Synthesis Center  
Headed by Tatjana von Steiger



Watch on YouTube







Some of the Changemakers participating in the 2023 cohort, in Peru  
Photo: Claudia Lucero

the needs of our Solutionscapes. A digital Engagement Toolbox was developed, and practice of engagement tools and methods was regularly offered in Art of Hosting Community of Practice sessions.

### 3. First successes in gearing up for policy leverage

In 2023, the team began to systematically assess how to achieve policy leverage most effectively. They focused on the following topics: commodity regulations, food system transformation and Target 3 of the Global Biodiversity Framework (30by30), given their high relevance to the Wyss Academy's Hub regions and the specific research conducted in these fields. With the Global Biodiversity Framework marking its first anniversary in December 2023, the Wyss Academy published a call to action for a just and effective implementation of this framework.

### 4. Circular societies promoted

In 2023, the Wyss Academy applied its inclusive approach to the topic of circular societies: merging diverse knowledge systems and perspectives to pave the way for actionable steps in systems transformation. The Global Policy Outreach & Synthesis Center involved global participants from the realms of science and practice, and partners representing local and Indigenous knowledge. The team conducted three initial workshops focused on transformations, global justice, and natural resources. Through the Art of Hosting method, they cultivated a safe space, emphasizing shared experiences and expertise to encourage people to co-create knowledge. They also facilitated two co-creation sessions to support projects that exemplify a circular society. The Wyss Academy's engagement on the topic led it to become a member of the Executive Committee for a Global Roadmap for an Inclusive Circular Economy, initiated by the British think tank, Chatham House.



Some of the Changemakers who joined the 2023 cohort, in Kenya  
Photo: Sheila Funnell

## Main achievements in 2023

### 1. Changemakers Program initiated

In 2023, the Wyss Academy launched its Changemakers Program: a training program to empower and equip young people from Kenya, Peru and Switzerland to play leading roles in fostering sustainable development. Over six months, participants gained transferable skills and knowledge to drive positive change in human-nature relationships within their communities. As a result of their innovative projects and the insights gained, Changemakers were able to showcase their projects as well as the program at several national events in their respective countries. 31 people were enrolled in the Program from June 2023.

### 2. Facilitation for systems change

The Wyss Academy's staff and local partners attended a three day in-person training on co-designing, executing, and harvesting participatory work with diverse stakeholder groups. Engagement is one of the three pillars of the Wyss Academy's mission and an essential skill for all units to drive change. It also requires systematic training in tools and methods tailored to



One of eight Samburu women known as *Mama Tembos* (Kiswahili for "mothers of elephants") tracking data on the use of migration corridors by different species. Ewaso Ng'iro north basin, Kenya  
Photo: James Mwamisi

## Competence Centers

# Learning, Monitoring & Evaluation



The Wyss Academy for Nature's LM&E competence center supports all Wyss Academy hubs and units in monitoring, evaluating, and learning from the organization's initiatives and interventions. It measures the progress of projects, strategic objectives, strategic goals, and overall strategy, evaluating and learning from their outputs, outcomes, and impacts. Learning, Monitoring, and Evaluation at the Wyss Academy helps the organization identify and understand drivers and mechanisms of change that have a positive impact on the systems connecting humans and nature. By employing participatory methods, the LM&E team collaborates closely with the Wyss Academy's partners and the communities in the regions where we work, and continually supports the organization in learning from its experiences and those of others.

Interview with Khalil Bitar, Learning, Monitoring & Evaluation Lead (LM&E)



Watch on YouTube



Installation of soil moisture and temperature probes for enhanced monitoring of semi-circular bunds in Naibunga County, Kenya  
Photo: Marcel Wälti



Community members in action: Installing soil moisture and temperature probes  
Photo: Marcel Wälti

## Main achievements in 2023

### 1. Theories of change built, and impact hypotheses formulated

In 2023, the LM&E team supported several hubs and units in developing theories of change for the various Solutionscapes at the Regional Hubs, and in other interventions of the organizational units in Bern. The Wyss Academy's approach is one that centers around the idea of living labs; hence we develop theories of change and impact hypotheses to analyze and be transparent about our assumptions. In this way, we know what to measure, and learn and adapt in the naturally short cycles of our living labs. We expect the unexpected. Theories of change and impact hypotheses were adapted regularly in 2023 to ensure that they remain practical, and that they can be utilized effectively.

### 2. Key performance indicators developed

During the past year, the LM&E team also focused on formulating SMART key performance indicators for several projects and interventions. This addition will help the project and management teams of the Wyss Academy to effectively monitor the progress of their interventions. Furthermore, it will provide essential data for the organization's first external review during 2024 (See point 3).

### 3. Preparation for the Wyss Academy midterm review (2024)

The LM&E team started the preparation process for the Wyss Academy's first external review in 2024. This joint preparation effort was kicked off in 2023 in close collaboration with the **Wyss Foundation** and various key Wyss Academy partners and other stakeholders.

Eva Ludi, Head of Regional Stewardship Hubs, exchanging with Hub partners  
Photo: Daria Vuistiner







The Wyss Academy's Annual Planning Week in Murten, Switzerland, brought together the project leaders from all regions  
Photo: Eda Elif Tibet

## Competence Centres

# Management Center

The Wyss Academy for Nature's Management Center drives the global institutional projects, supporting and coordinating operations that enable the Wyss Academy to work productively and positively, in an adaptive and entrepreneurial spirit. The unit includes the competence centers of People & Culture, Finance & Controlling, ICT & Digital Happiness, Internal Services & Support, Learning, Monitoring & Evaluation, as well as Communications. Their aim is to enable the Wyss Academy to be a lean organization that maximizes effectiveness and efficiency and is a role model for organizational, environmental and social sustainability. To achieve this, we have developed a solid organizational structure based on lean processes, governance, and centrally coordinated services that empower colleagues in the four regions of operations to implement the organization's vision, mission, goals and values in a decentralized manner.





The Wyss Academy's  
Annual Planning Week  
in Murten, Switzerland  
Photo: Eda Elif Tibet

## Main achievements in 2023

### 1. Onboarding new talent: 50% employee growth achieved

In the spirit of the project “Inspiring Organization” – aiming to become a fair and attractive employer and partner for employees – in 2023, the Wyss Academy grew from 60 to 90 employees and staff seconded by partners. Permanently identifying, interviewing and selecting the best talent, and onboarding them in regard to the Wyss Academy’s vision and mission meant a huge effort across all units and regions. While the employee life cycle was continuously developed under the lead of the People & Culture competence center, the Internal Services & Support team assured an attractive and functional workspace.

### 2. Teams, partners and stakeholders aligned for impact

Field trips and meetings with partners, the Advisory Committee, the Board and various operational units of the Wyss Academy were achieved in a joint institutional effort under the lead of the Management Center, as were the operational and financial reporting for the year 2022 and the annual institutional planning processes. In order to position the Wyss Academy with stakeholders and to strengthen its perception and visibility, a detailed communication strategy was developed by the Communications team and has been implemented since the beginning of 2024.



Opening of the new Wyss Academy offices in Nanyuki, Kenya. The Management Center was strongly involved in supporting the Regional Hubs in various areas throughout the year.  
Photo: Kelah Kathure

### 3. Further integration and anchoring of digital systems

Under the lead of the ICT & Digital Happiness and Finance & Controlling teams, the Wyss Academy’s system landscape continued to evolve with the aim of availing accurate, pertinent and timely information and key performance indicators. The further integration and application of tools such as Abacus, Asana, Peerdorm or Microsoft Teams enhanced and will further boost our capacity to better oversee, steer and prioritize projects, resources and staff – and to evaluate and monitor results and outcomes rigorously.

### 4. Institutional governance frame completed

In the spirit of lean organizational management, the Wyss Academy, led by the Management Center, defined the institutional governance frame - thus completing the regulatory environment of the Wyss Academy by consulting with teams across countries, cultures and legal systems. The development of a risk management frame, the design of a “tell-us” system and the Management & Operation Regulations will enable the Wyss Academy to operate effectively, efficiently and in line with laws and regulations, while assuming its duty of care toward employees and partners.

### 5. Innovation development and failing forward

Private sector engagement, in combination with a start-up sourcing accelerator for incubator engagement in the Solutionscapes were explored and co-designed with our partner **Brainforest**. The resulting ideas were further developed together with the Hubs and various stakeholders. Ongoing efforts to develop research and innovation projects to attract third-party funds led to varying results. The co-design and establishment of a consistent innovation management system was postponed to 2024.



Making a difference

## Key Figures

Our contributions to the fields of climate, biodiversity and land use can now be observed in the form of numerous publications, active projects and coalitions for change.

We conducted 131 outreach and engagement activities over the past year, while our social media audience grew by 47% - reaching 8'300 followers.

Inspired

# 88

Active projects

Tested

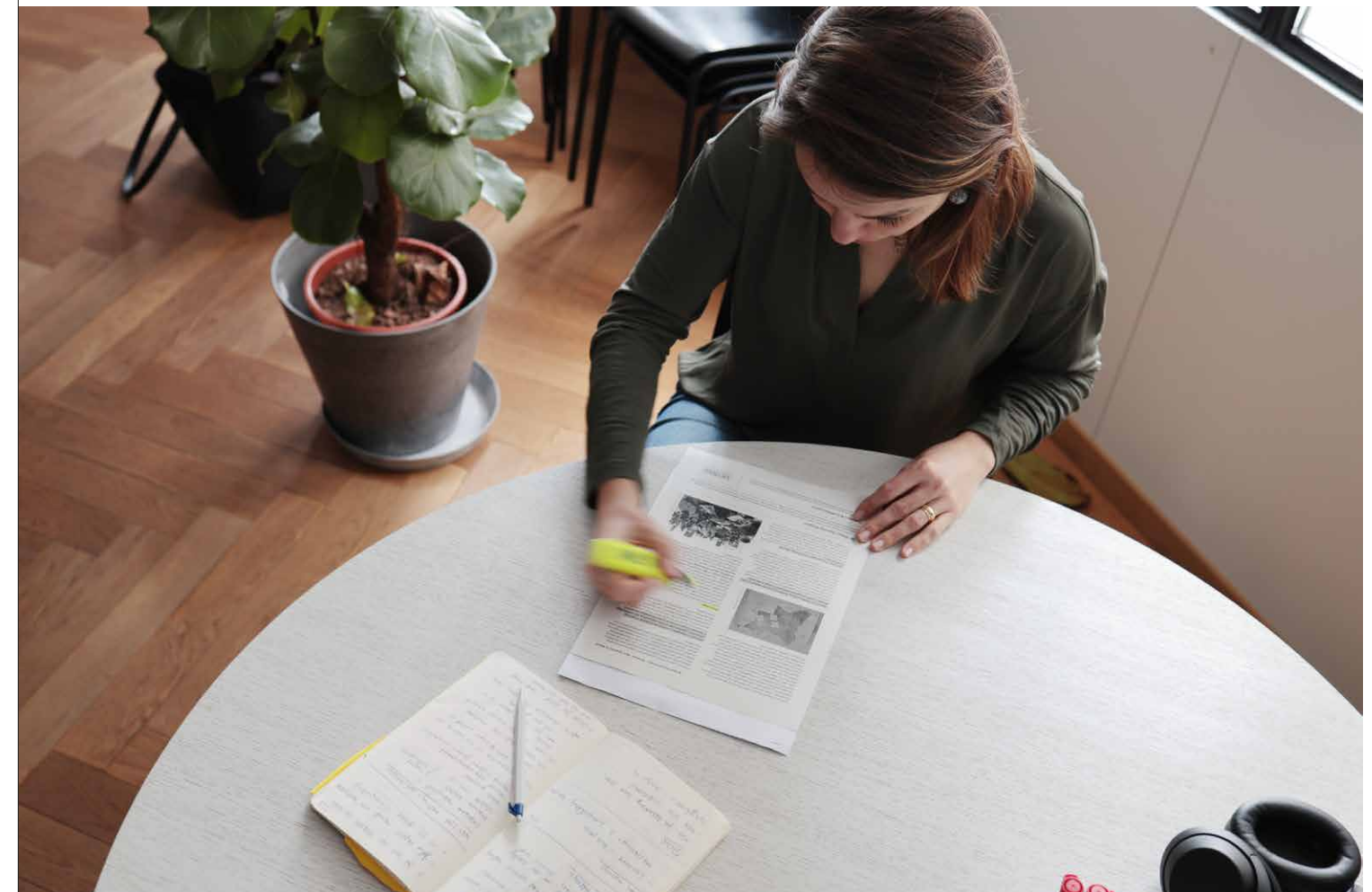
# 30

Incubator projects in 8 Living Labs

Contributed to

# 47

Peer-reviewed publications



Julia Cunha, Communications and Social Innovation Expert, preparing communication content for our latest publication.

Photo: Daria Vuistiner

Research &amp; Innovation

## Our Publications

Throughout 2023, members of the Wyss Academy authored or contributed to 47 articles and publications. Explore them in detail by navigating through the list overleaf:



## A

‘A Critical Examination of Rural Out-Migration Studies in Ethiopia: Considering Impacts on Agriculture in the Sending Communities.’ Dessalegn et al., <https://www.mdpi.com/2073-445X/12/1/176>

‘Agricultural commercialization in borderlands: Capturing the transformation of a tropical forest frontier through participatory mapping.’ Latthachack et al., <https://www.frontiersin.org/articles/10.3389/fsufs.2022.1048470/full>

‘A Large-Scale Field Experiment to Reduce Non-Payments for Water: From Diagnosis to Treatment.’ Rockenbach, Bettina; Tonke, Sebastian; Weiss, Arne R., <https://direct.mit.edu/rest/article/doi/10.1162/rest.a.01363/117709/A-Large-Scale-Field-Experiment-to-Reduce-Non>

‘Analyzing Climate Change Policy Narratives with the Character-Role Narrative Framework.’ Gehring, Kai; Grigoletto, Matteo. <https://www.cesifo.org/en/publications/2023/working-paper/analyzing-climate-change-policy-narratives-character-role-narrative>

‘Application of Free Satellite Imagery to Map Ecosystem Services in Ungwana Bay, Kenya.’ Mathai, Daina; Cristina, Sónia; Owuor, Margaret Awuor. <https://www.mdpi.com/2072-4292/15/7/1802>

## B

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## C

‘CHELSA-W5E5: daily 1 km meteorological forcing data for climate impact studies.’ Karger et al., <https://essd.copernicus.org/articles/15/2445/2023/>

‘Connected Conservation: Rethinking conservation for a telecoupled world.’ Carmenta et al., <https://linkinghub.elsevier.com/retrieve/pii/S0006320723001489>

‘Construcción colectiva del territorio socio-ecológico continuo de la Reserva Nacional Tambopata y su zona de amortiguamiento en Madre de Dios, Perú.’ Alca et al., <https://boris.unibe.ch/178828/>

## D

‘Describing complex interactions of social-ecological systems for tipping point assessments: an analytical framework.’ Froese et al., <https://www.frontiersin.org/articles/10.3389/fclim.2023.1145942>

‘Drivers and consequences of archetypical shifting cultivation transitions.’ Martin et al., <https://besjournals.onlinelibrary.wiley.com/doi/10.1002/pan3.10435>

‘Drought Experience and Altruism.’ Nguyen, Quynh. <https://www.nature.com/articles/s41558-023-01751-z>

## E

‘Exploring hail and lightning diagnostics over the Alpine-Adriatic region in a km-scale climate model.’ Cui et al., <https://wcd.copernicus.org/articles/4/905/2023/>

‘Exploring the relationship between plural values of nature, human well-being, and conservation and development intervention: Why it matters and how to do it?’ Carmenta et al.

## F

‘Future-proofing the emergency recovery plan for freshwater biodiversity.’ Lynch et al., <https://cdnsiencepub.com/doi/10.1139/er-2022-0116>

## G

‘Global shocks, cascading disruptions, and (re-) connections: viewing the COVID-19 pandemic as concurrent natural experiments to understand land system dynamics.’ Piquer-Rodríguez et al., <https://link.springer.com/epdf/10.1007/s10980-023-01604-2>

‘Governance and Conservation Effectiveness in Protected Areas and Indigenous and Locally Managed Areas.’ Zhang et al., <https://www.annualreviews.org/doi/10.1146/annurev-environ-112321-081348>

‘Governing Land Concessions in Laos.’ Kenney-Lazar et al., <https://www.taylorfrancis.com/books/9781003080916>

## H

‘Habitat protection and restoration: Win-win opportunities for migratory birds in the Northern Andes.’ Gonzalez et al., <https://linkinghub.elsevier.com/retrieve/pii/S2530064423000044>

‘Heat stored in the Earth system 1960–2020: where does the energy go?’ Von Schuckmann et al., <https://essd.copernicus.org/articles/15/1675/2023/>

‘High-resolution land use and land cover dataset for regional climate modelling: historical and future changes in Europe.’ Hoffmann et al., <https://essd.copernicus.org/articles/15/3819/2023/>

‘How social considerations improve the equity and effectiveness of ecosystem restoration.’ Löfqvist et al.

## I

‘ID Water Scarcity Synthesis Report: Participatory workshop for the interdisciplinary research on water scarcity and climate change in the Ewaso Ng’iro North River Basin.’ Demory et al., <https://boris.unibe.ch/189258/>

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## K

‘Klimaneutrale Region Oberland-Ost. Von der Vision zum Handeln.’ Wymann von Dach et al., <https://boris.unibe.ch/182433/>

## M

‘Maize boom, bust and beyond: Investigating land use transitions in the northern Thai uplands.’ Pravalprukskul, Pin; Bruun, Thilde Bech; Messerli, Peter. <https://linkinghub.elsevier.com/retrieve/pii/S0264837723002818>

‘Mapping suitable habitats for globally endangered raptors in Kenya: Integrating climate factors and conservation planning.’ Ngila et al., <https://onlinelibrary.wiley.com/doi/10.1002/ece3.10443>

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‘Mountain social-ecological resilience requires transdisciplinarity with Indigenous and local worldviews.’ Ibarra et al., <https://linkinghub.elsevier.com/retrieve/pii/S016953472300191X>

## N

‘Navigating power in conservation.’ Shackleton et al., <https://onlinelibrary.wiley.com/doi/abs/10.1111/csp2.12877>

‘Neotropical understory birds and mammals show divergent behaviour responses to human pressure.’ Negret et al., <https://www.sciencedirect.com/science/article/pii/S2530064423000263>

‘Netto-Null-Tourismus im Jahr 2050 – Ein Blick in die Zukunft und Thesen zur Transformation.’ Wirth et al.

‘New Forests and New Forest People in Central Vietnam: The Acacia Boom.’ Kull et al., <http://www.cabidigitallibrary.org/doi/10.1079/9781800622197.0025>

## P

‘People need freshwater biodiversity.’ Lynch et al., <https://wires.onlinelibrary.wiley.com/doi/10.1002/wat2.1633>

‘Perceptions, trends and adaptation to climate change in Yala wetland, Kenya.’ Githiora et al., <https://www.emerald.com/insight/content/doi/10.1108/IJCCSM-07-2022-0089/full/html>

‘Producción de conocimiento científico y tecnológico peruano frente a los Objetivos de Desarrollo Sostenible (ODS) en el periodo 2002 – 2021.’ Saravia, M., & Tostes, M. (2023). Actas Del Congreso Latino-Iberoamericano de Gestión Tecnológica y de La Innovación 2023

## R

‘Reflexive use of methods: a framework for navigating different types of knowledge and power in transformative research.’ Minna et al., <https://doi.org/10.1007/s11625-023-01431-z>

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‘Response letter to correspondence letter: “Tropical deforestation: elections vs. bad governance”.’ Morpurgo et al., <https://www.sciencedirect.com/science/article/pii/S0006320723001556>

S

‘Simulating Hail and Lightning Over the Alpine Adriatic Region—A Model Intercomparison Study.’ Malečić et al., <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JD037989>

‘Social considerations are crucial to success in implementing the 30×30 global conservation target.’ Sandbrook et al., <https://www.nature.com/articles/s41559-023-02048-2>

‘Stimulant or Depressant? Resource-Related Income Shocks and Conflict.’ Gehring, Kai; Langlotz, Sarah; Kienberger, Stefan. [https://direct.mit.edu/rest/article/doi/10.1162/rest\\_a\\_01375/117911/Stimulant-or-Depressant-Resource-Related-Income](https://direct.mit.edu/rest/article/doi/10.1162/rest_a_01375/117911/Stimulant-or-Depressant-Resource-Related-Income)

T

‘Testing the Drivers of Corporate Environmentalism in Vietnam.’ Malesky, Edmund J.; Nguyen, Quynh. <https://doi.org/10.1007/s12116-023-09400-4>

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# Financial Overview

In the 2023 financial year, efforts were focused on further developing the Regional Stewardship Hubs and expanding their ongoing activities, while also adding a new unit within the Research and Innovation team, focused on Environmental Governance and Global Development. In the fourth year since its founding, the Wyss Academy has grown significantly, expanding its workforce by half from 60 to 90 employees, completing its establishment and start-up phase. In 2023, turnover has grown by 40%, totaling CHF 18.75 million, and is offset by income and donor contributions amounting to CHF 21.15 million.

The high ambitions outlined in the 2023 budget were met accordingly, with an implementation rate of just under 80%, resulting in an ordinary result of CHF 2.52 million. Moreover, the additional equity accumulated during this period will gradually decrease, starting from 2024, through the implementation of new projects and further scaling of existing initiatives in the Regional Hubs.

## Read the Financial Report

For detailed information, please refer to the full 2023 Financial Report.

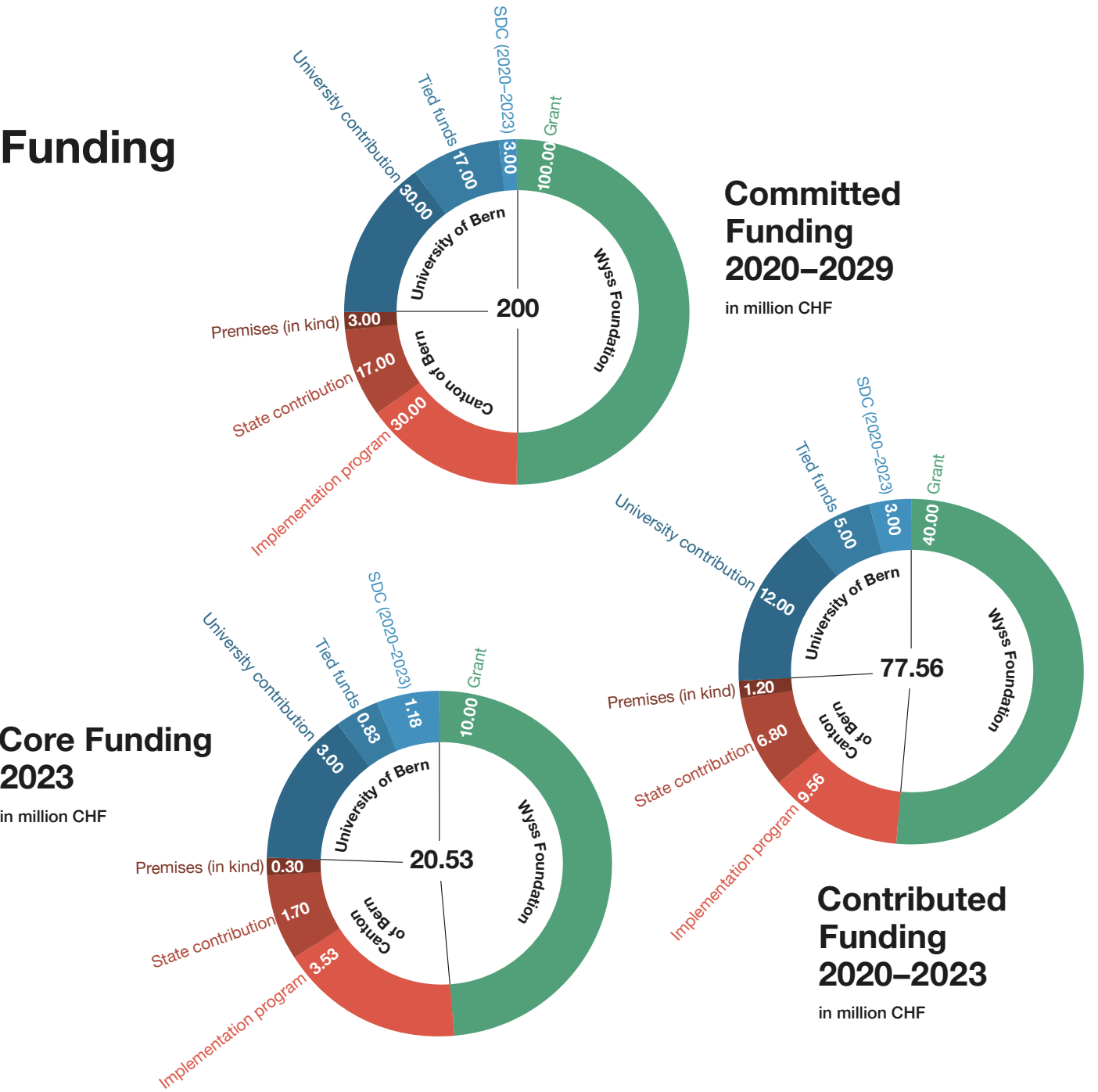
[Download](#)



Funding

Core Funding 2023

in million CHF



Balance Sheet

		12/31/2023	12/31/2022
Assets	Notes	CHF	CHF
Cash and cash equivalents		10,852,905	22,621,092
Current financial assets	4.1	14,900,140	10,036,533
Receivables from services	4.2	3,237,329	2,664,132
Other short-term receivables	4.3	11,846,674	1,302,018
Advance payments Regional Hubs	4.4	443,468	76,636
Prepayments and accrued income		137,056	475,497
Current assets		41,417,572	37,175,908
Tangible fixed assets	4.5	746,539	723,472
Intangible assets	4.6	231,119	305,096
Non-current assets		977,658	1,028,568
Total assets		42,395,230	38,204,476
Liabilities and foundation capital	Notes	CHF	CHF
Payables from goods and services	4.7	4,385,924	2,761,308
Accrued liabilities and deferred income	4.8	1,524,444	1,898,853
Short-term provisions		974,673	556,975
Current liabilities		6,885,040	5,217,136
Foundation capital		10,000,000	10,000,000
Result carried forward		22,987,340	14,985,701
Result of the year		2,522,849	8,001,639
Total foundation capital		35,510,189	32,987,340
Total liabilities and foundation capital		42,395,230	38,204,476



Income Statement

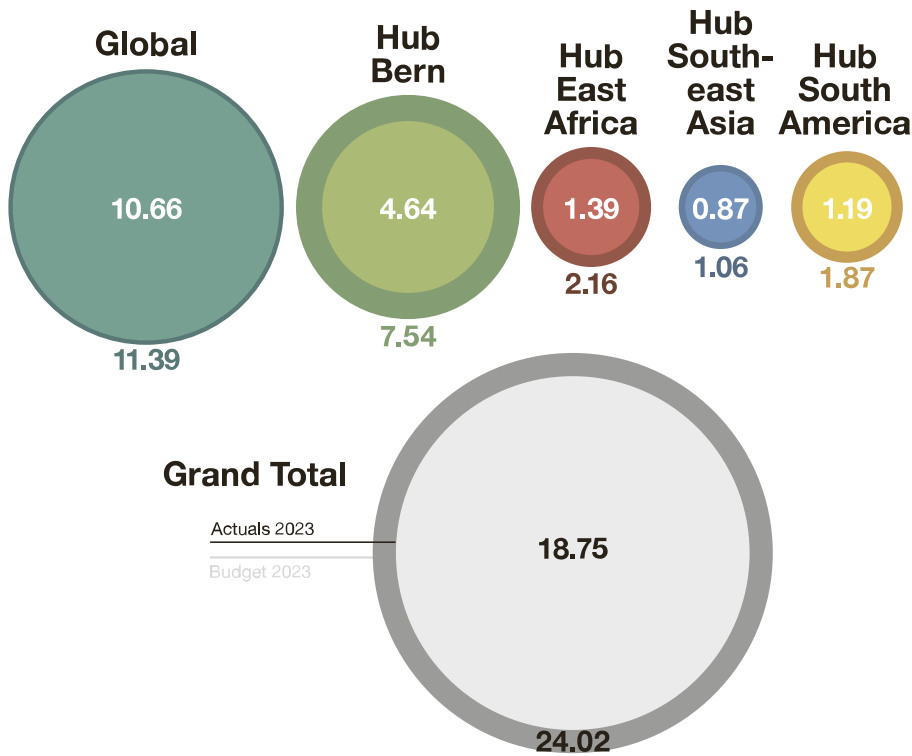
		01/01–12/31/2023	01/01–12/31/2022
	Notes	CHF	CHF
Donor Contributions	4.9	17,000,000	17,000,000
Income for implementation program Hub Bern	4.10	3,525,964	3,550,450
Other third-party funding by Canton of Bern		462,705	314,568
Other third-party funding for projects, research and services		150,077	532,060
Other operating income		14,865	12,486
Total operating income		21,153,611	21,409,564
Project expenses	4.11	-8,018,842	-6,349,037
Personnel expenses	4.12	-9,198,130	-6,096,911
Other operating expenses	4.13	-1,208,878	-699,402
Depreciation of tangible assets	4.5	-210,163	-200,359
Amortisation on intangible assets	4.6	-109,906	-59,415
Total operating expenses		-18,745,918	-13,405,124
Operating result		2,407,693	8,004,440
Financial result		115,156	-2,801
Ordinary result		2,522,849	8,001,639
Extraordinary result		0	0
Result of the year		2,522,849	8,001,639

Reporting

Implementation Report

Spending 2023:  
Implementation by regions

in million CHF



Looking at the project costs from a regional perspective, a quarter of the total cost was spent on projects in Hub Bern, while the Hubs East Africa, Southeast Asia and South America accounted for a fifth of the project expenditure. More than half of project expenditure was allocated to projects and strategic objectives in 2023. They serve the further development of all four Hubs, as well as the global projects and research activity of the

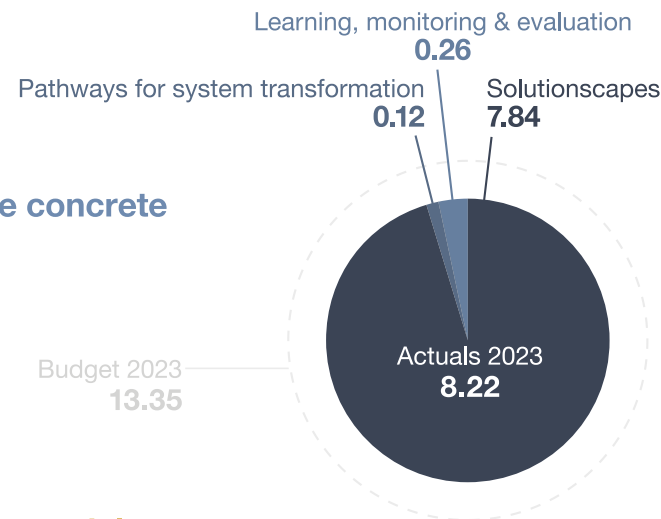
Research & Innovation teams, and the completion of the design and roll-out of the standardized management systems used around the world.



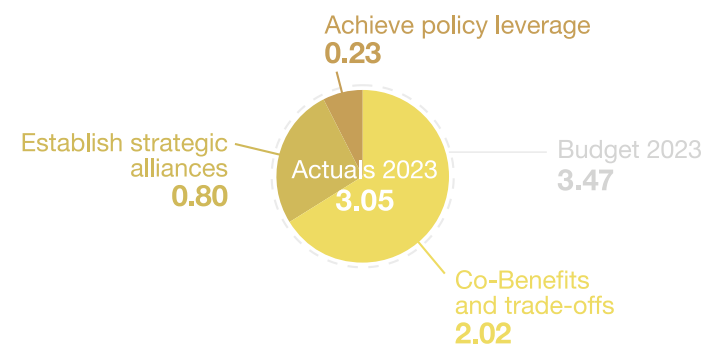
## Spending 2023: Implementation by strategic Goals and Objectives

in million CHF

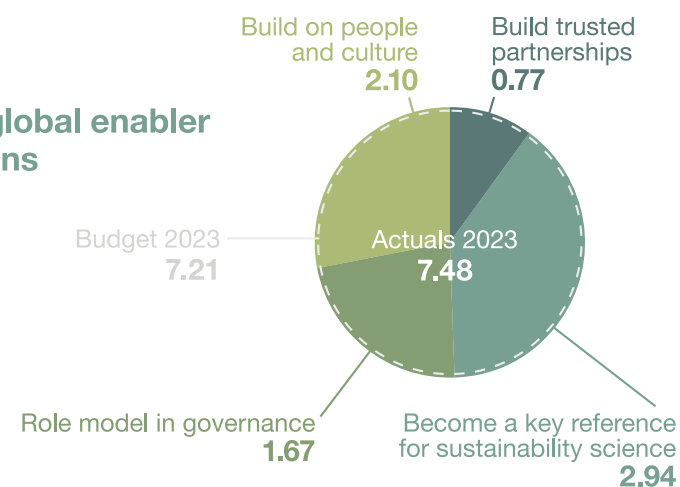
### Goal 1: Demonstrate concrete pathways



### Goal 2: Inspire a new social contract



### Goal 3: Become a global enabler of innovations



In the fourth year of the Wyss Academy, a total of 88 projects contributed to the implementation of 10 of the 12 strategic objectives, which are structured according to the three strategic goals defined in the 2022-2024 strategy process. An overall implementation rate of just under 80% represents a clear increase in implementation costs of 40% compared to the previous year.

Despite this, a relatively low implementation rate of around 60% was observed under Strategic Goal 1, which aims to identify very specific transformation paths. Nevertheless, this amounted to almost 45% of the total expenses in 2023 and 47 projects. Strategic Goal 2, which focuses on inspiring a new social contract with nature, was implemented at close to 90% of the expenditure of the planned activities in 18 projects, and accounts for a bit more than 15% of the costs in 2023. Strategic Goal 3, centered on becoming a global enabler of innovation for a just system transformation, was implemented at a rate of slightly above 100% of the planned budget, which corresponds to around 40% of the total project costs in 23 projects.



While the total number of projects initiated rose by 10% and turnover by 40%, the proportion of costs accounted for by additional third-party funding acquired for innovation projects amounted to 3.3 %. Not only did scientific publications nearly double to 47, but teaching activities also grew to over 22 lectures. Through engagement activities, the Wyss Academy reached out to people, institutions and stakeholders at more than 130 events, while communication and campaign activities led to a 47% increase in audience growth, reaching over 8'300 followers. The Wyss Academy and its members also appeared in 30 print, online and broadcast media around the world. The number of employees

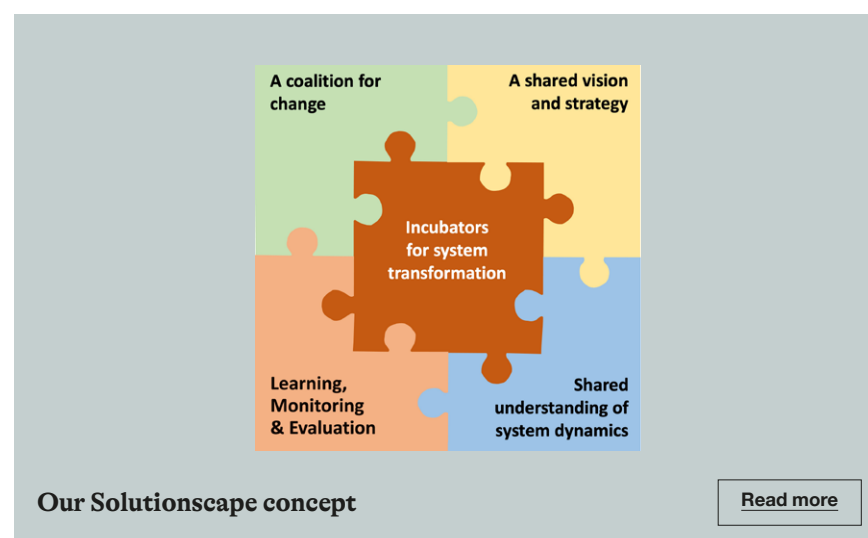
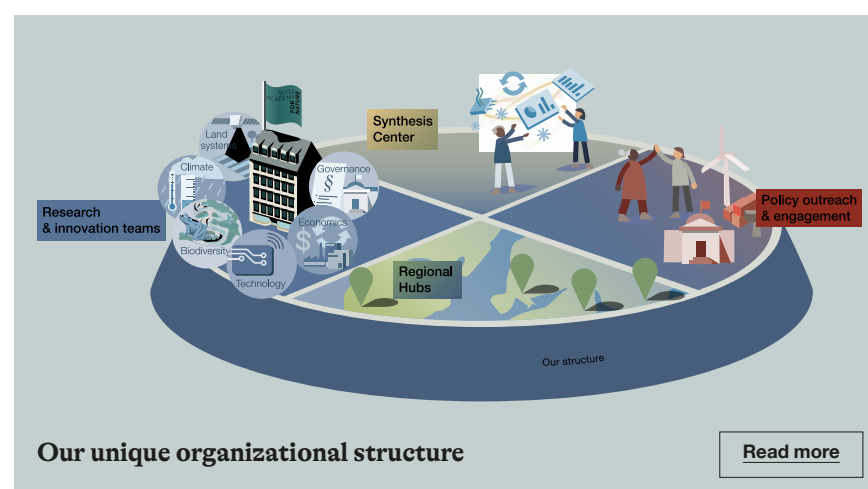
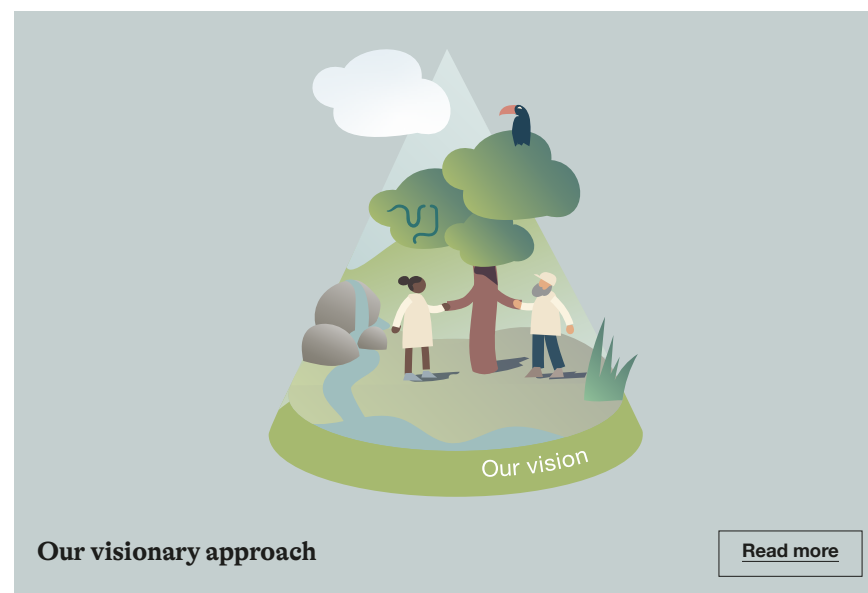
increased by half in the fourth year of the Wyss Academy, growing to 90 employees by the end of 2023. Our employees have an average age of 39 years and come from 14 countries.



# About Us

The Wyss Academy for Nature offers a new approach to pressing issues at the intersection of climate change, biodiversity loss, and land use change, as well as their implications for human wellbeing and inequality.

We seek to overcome the growing gap between understanding the problems and implementing concrete action. In our four regional hubs in South America, East Africa, Southeast Asia, and Central Europe, we build bridges between scientific knowledge, political power, and action. By engaging with various stakeholders, we develop, test, and catalyze solutions that transform the relationship between people and nature.



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Together, we create  
a new relationship  
with nature

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