

Annual Report 2022

Wyss Academy for Nature at the
University of Bern



Letter to our stakeholders

In 2022 we made significant progress toward achieving our three key strategic goals. We are designing and implementing innovations to deliver positive impacts for people and nature.

[Read the letter](#)



Milestones

[Overview](#)

Expertise

Interdisciplinary
Research & Innovation
teams established
around four
professorships

Invested

13.4

Million CHF

On our way

While welcoming new team members, we further developed our organizational structure in 2022. Pursuing a shared strategy, the cooperation between teams has deepened across disciplines, topics, and regions.

Motivated

61

Employees

Inspired

80

Ongoing projects

Topic of the year

Bridging the gap between science and action: the Wyss Academy's way of tackling complex and interconnected challenges

[Read more](#)



Competence centers in 2022



Policy Outreach & Synthesis

We establish open platforms for exchange among different sectors and actors, and we reach out to share new findings and knowledge in science.

[Read more](#)



Learning, Monitoring & Evaluation

With our systems and mechanisms, we continuously monitor, evaluate, and learn. We want to know if the pathways we develop benefit both people and nature.

[Read more](#)



Research & Innovation

We use the newest scientific knowledge to achieve our mission, exploring opportunities for change and developing and supporting innovative solutions.

[Read more](#)

Ongoing hub activities



Hub South America

We co-design land use models that contribute to forest protection as well as people's livelihoods and offer true development alternatives to exploitative resource use.

[The report](#)



Improving human wellbeing while preventing deforestation in the Amazon Rainforest

[Read the interview](#)



Photo by: Jane Winyard, Save the Elephants "Mama Tembos in the field"

Hub East Africa

We work to enable the coexistence of people and nature by maintaining the connectivity, functionality, and health of ecosystems and, in Madagascar, by harnessing the co-benefits of biodiversity hotspots for human wellbeing.

[The report](#)



Climate change exacerbates conflicts and causes suffering

[Read the interview](#)



Photo by: Timon Lenz

Hub Southeast Asia

We counter illegal resource extraction through local stewardship, and we work to maintain multifunctional landscapes that benefit agriculture, development, biodiversity, and society.

[The report](#)



Building powerful positive transformation in Laos

[Read the interview](#)



Hub Bern

We work to promote sustainable human activities and people–nature interactions in ecologically sensitive areas, enable a transformation to sustainable energy systems in urban and rural regions , including carbon-neutral tourism, and encourage steps toward a more sustainable food system.

[The report](#)



Tourism regions are both victims and drivers of climate change

[Read the interview](#)



Photo by: Alexander Leuenberger

Shaping the future

Our approach

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.

[How we operate](#)



Financial Report

Our annual accounts show how our funding is transformed into projects with tangible outputs.

[Read more](#)

[PDF Download](#)

Implementation Report

We use an evidence-based monitoring and evaluation plan to assess our projects' progress, achievements, setbacks, and outcomes.

[Read more](#)

Milestones

Overview



Expertise

Interdisciplinary
Research & Innovation
teams established
around four
professorships



Milestones

Overview



Regional activities

Hubs in Peru and Kenya
are fully staffed and
engaged in local
activities



Milestones

Overview



Expansion

Madagascar is included
in the Hub East Africa



Milestones

Overview



Wyss Academy Symposium

First symposium
connects society,
science, and business to
bring knowledge into
action



Milestones

Overview



Reinforced structure

Adaptive organization
and additional support
established



————— Milestones

Milestones 2022

In 2022, the Wyss Academy established the hub offices and teams in South America and East Africa, achieved its first symposium, expanded research capabilities, and completed the setup of global functions.

Expertise

Interdisciplinary Research & Innovation teams established around four professorships

To generate innovations and systemically test solutions in the field, four Research & Innovation teams were established in the areas of climate change, biodiversity, land systems, and political economy. Two additional teams on Governance and ICT for Nature are to be recruited in 2023.

Regional activities

Hubs in Peru and Kenya are fully staffed and engaged in local activities

The hub offices in Peru and Kenya are fully operational and staffed with amazing teams of professionals who bring in a diverse range of competencies and experiences. The portfolio of incubator activities that stem from a deep engagement in our solutionscapes is constantly growing. Moreover, the Wyss Academy interdisciplinary research teams are on site, addressing urgent challenges.

Expansion

Madagascar is included in the Hub East Africa

Based on established partnerships with various local and international actors, a new solutionscape of the Hub East Africa was launched in northeastern Madagascar. This remote region near the Masoala National Park is known for its extraordinary biodiversity. But nature here is under pressure because smallholder farmers lost access to land. By involving a broad range of stakeholders, a basic systemic understanding and a joint strategy were developed. They served as basis for first projects, which have already been launched.

Wyss Academy Symposium

First symposium connects society, science, and business to bring knowledge into action

To effectively address nature–people challenges, the first Wyss Academy Symposium provided a safe space for researchers, youth, changemakers, civil society representatives, and businesses to build a shared understanding of key system dynamics. Concrete ideas were developed to address challenges the Wyss Academy faces in different regions. The event’s experimental format will be further developed, and learnings will help us shape the Wyss Academy Dialogues with Purpose around the topic of “The True Value of Forest”, planned for 2023–2024.

Reinforced structure

Adaptive organization and additional support established

Organized in role-based structures with flat hierarchies, we pursued our strategic objective of becoming a role model in governance and operations and further developed and adapted our operational setup. Prominent additions in 2022 were the functions of Learning, Monitoring & Evaluation and Organizational Development.

Introduction

Letter to our stakeholders

Dear Reader,

As we compose this letter, the first rains have begun to fall in northern Kenya, bringing renewed hope to a region that has suffered through six consecutive failed rainy seasons. However, restoring and securing the livelihoods of the people in these regions and strengthening environmental stewardship requires more than just mitigating climate change or providing humanitarian aid. It requires a shared vision among local communities and other stakeholders in these biodiversity-rich yet vulnerable landscapes to facilitate coexistence between people, livestock, and wildlife. It also requires the initiation of systemic transformations in the use of land, conflict resolution, income generation, and the establishment of social cohesion and resilience.

Over the past year, the Wyss Academy has begun to execute its strategy for 2022-2024, designed to support such initiatives as mentioned above in four regional hubs across the globe. We believe that the conservation of nature and human wellbeing can support one another, and our mission is to break down the silos between science, policy, and practice to devise innovative solutions for the most challenging sustainability issues. In 2022, we made significant progress toward achieving each of our three primary strategic goals and further refined our niche and the added value we can provide to our partners and ongoing initiatives.

Our first goal is to demonstrate concrete pathways toward mutual benefits between nature and people. We have established seven living labs across four regions worldwide. In these so-called solutionscapes, we test innovations such as youth-led restoration and combined wildlife and livestock corridors in Kenya. We promote the diversification of local people's revenue sources near protected areas in Madagascar through beekeeping, agroforestry, or handicrafts. We enhance the value of Peru's standing forests through innovative value chains for Amazon nut and test the energy transition in the Swiss tourism sector. The Wyss Academy's niche extends beyond testing such incubators to triggering systemic feedback loops between these interventions to expedite the transition toward a shared and evidence-based vision.

Our second goal aims to inspire a new social contract with nature across various levels to support the development and scaling out of innovative pathways. Over the past year, our four Research & Innovation teams have become fully operational, and we are proud that they jointly explore opportunities for co-benefits between nature and people in the fields of agroecology, carbon and biodiversity credits, indigenous governance systems, and the management of water and mining resources. Through our units Global Policy Outreach and the Synthesis Center, we have started to connect the Wyss Academy with various stakeholders, including the 485 youth representatives who participated in the changemaker program across our four hubs and the 220 stakeholders from science, policy, and practice who participated in the first Wyss Academy Symposium in Bern.

Our third goal is to establish the Wyss Academy as a global enabler of innovation, building a credible and highly functional institution for the long term. While our management team has worked hard to recruit and onboard staff for the Research & Innovation teams as well as for the regional hubs, we have also invested in building a culture that is based on our core values and enables us to progress as one team, to put the Wyss Academy and all its units at the service of concrete innovations and impacts on the ground.

We want to take this opportunity to express our sincere gratitude to our hardworking staff, who have dedicated themselves tirelessly throughout the year to achieve our vision. You have accomplished so much! We would also like to thank all of our stakeholders who have supported us, especially our Board and our funders. We are grateful to our Advisory Committee, who provided invaluable advice and guidance. We appreciate all who share our mission and enthusiasm, and we count on you to stay connected with us.

Prof. Dr. Peter Messerli
Director

Prof. Dr. Christian Leumann
President of the Board

————— Topic of the year

When science meets action



Photo by: Peter Messerli

When it comes to solving complex and interconnected challenges involving nature and people, science and practice often work in parallel. Although they may share the same goals, there are few occasions when these two very different, yet complementary, domains cross paths. Over the past three years, the Wyss Academy for Nature has worked to enable, promote, nurture, and support the interconnection between science and action. The organization has also promoted an inclusive approach, opening dialogues with policymakers, empowering stakeholders, and encouraging them to co-create solutions and collaborate in ways that previously seemed inconceivable due to conflicting needs and unique points of view.

In 2022 in particular, the Wyss Academy made great strides in achieving its mission. New experts joined the Research & Innovation teams on four continents. Additional challenges were identified, and practical approaches to address them were designed, based on knowledge that is available beyond scientific literature and textbooks. Researchers and innovators jointly went on field missions and learned from local communities. During these immersions, they were able to gather information from external partners, discover cultural particularities, and familiarize themselves with the details of local regulations.

Combining different types of knowledge

It is critical for the Wyss Academy to be present on the ground, and to learn and act alongside local communities. Together, practice and science determine the quality of the designed interventions. In its inter- and transdisciplinary approach, the Wyss Academy combines three different types of expertise: systems knowledge, target knowledge, and transformation knowledge.

Systems knowledge can be roughly described as the scientific understanding and evidence of how humans interact with nature and vice versa. For example, the information on how rainfall patterns in Kenya’s semi-arid landscapes will develop under climate change, affecting the availability of pastures and thus the livelihood options of pastoral communities. Systems knowledge enables us to explore opportunities for change and identify innovative solutions.

Target knowledge, on the other hand, means talking to people, capturing first-hand all the different stakeholders’ claims as well as their hopes and wishes for the future. It also means transforming these ideas into a shared vision, so that actions can be designed in accordance with how people expect their lives, and those of future generations, to be.

Transformation knowledge, finally, guides the implementation of changes and enables improvements to come to life. The main goal is to explore different levers of change with focus and purpose, in order to grant the best set of conditions to achieve concrete impacts for people and nature.

The key to transformation

“We, at the Wyss Academy for Nature, believe that innovation is not a miracle solution or one isolated activity. We should bring different cogwheels into clockworks, that allow systems to change,” says Dr. Peter Messerli, Director of the Wyss Academy for Nature and Professor for Sustainable Development. “We also need to know the purpose of system transformation. If we don’t have a goal, we just change things without knowing where we’re headed. That is why it’s so important for people and stakeholders to have a shared vision. And we want it to be based on knowledge, not ideology. It should be jointly discussed and ethical. Finally, we need robust monitoring and evaluation, so we can learn from unexpected side effects and possible failures, and adapt,” adds Messerli.

In 2023, the Wyss Academy for Nature continues its path of transformation and positive systemic change, bridging science and action, and ultimately bringing benefits to communities and nature.

Read the interview with our director and learn more about what inspires work inside the Wyss Academy for Nature.



“We need to build a fire-proof house”

[Read the interview](#)

Topic of the year: Interview

“We need to build a fire-proof house”

Three questions to Dr. Peter Messerli, Director of the Wyss Academy for Nature and Professor for Sustainable Development



Prof. Dr. Peter Messerli

Director of the Wyss Academy for Nature

What motivates the Wyss Academy to connect science and action?

We realized that knowledge, action, and decision making are often totally separate. They happen in silos, and they don't connect. Researchers often write reports and hope decision makers will implement their scientific recommendations. But this doesn't really happen, or at least not at the speed needed if we consider the urgency of our global environmental and social crises. In order to address the current dysfunctionalities of the key systems we live in, we must therefore try out new approaches. This is why, in our mission, we say we want to bring together science, action, and the power of decision makers.



Photo by: Peter Messerli

Is that why the Wyss Academy was founded?

There are different parts to this story. The University of Bern already promotes great interdisciplinary research in the fields of climate change, sustainability of land systems, and biodiversity. Building on the existing research and related partnerships across the world, there was an understanding that we should work together to create an innovative institution that promotes transdisciplinarity and action on the ground.

My personal point of view is that the most efficient way to protect nature or to get people out of poverty is to change the dysfunctional systems that create these problems in the first place. If the driving forces remain unaddressed and the pressure keeps growing because the economy doesn't internalize ecological costs, or because of the way we build cities and infrastructure, or because we still produce food in a way that is unfair and harms the environment – if all this continues, then even if we tried to protect nature with fences or weapons, in the end, we wouldn't make it. The same goes for poverty and inequality. It's not enough to extinguish the fire, we need to build a fire-proof house. Even if the ambition of transforming systems is huge, we can be smarter and more fit for purpose. We want to demonstrate that there are ways to change systems, and how this can be done. That is a little bit of my own story.



Photo by: Alexander Leuenberger



Photo by: Julie Zähringer



Photo by: Peter Messerli

How is it possible to bring science to the ground?

We are not an ordinary scientific organization that has predefined research questions and by all means tries to answer them. In other words, we don't want to answer questions that nobody has asked. Neither are we a development organization that assumes the world can be changed through logframes that guarantee all expected results beforehand. Seeing how interconnected our world is and how quickly it changes, I think we should admit the uncertainty is so big that interventions will always have unexpected outcomes or trigger unintended side-effects. At the Wyss Academy, we have the privilege to be able to experiment in what we call a living lab approach. This means we can respond to concrete challenges that we see; we need to define the goals and research questions while engaging with the system. We have a huge obligation to be capable of learning from what we do.

We should not come along and say: "We're bringing you the solution that you've always been waiting for, because we're the experts and the researchers. So, here is our smart thing." Instead, at the Wyss Academy, we say: "We're coming here to work and learn with you, to learn together." As long as we learn, monitor, and evaluate, we can try out new things. We also have the right to fail. That's a niche the Wyss Academy has. So, we need to be aware of what a great privilege and opportunity we have.

————— Competence centers: Driving for excellence

Policy Outreach & Synthesis



Photo by: Pascale Amez

In 2022, through Policy Outreach & Synthesis the Wyss Academy worked to build bridges between diverse sectors, actors, and types of knowledge in academia and beyond. Our approach allows us to question conventional wisdom and address topics with a fresh perspective while respecting other concepts and discussions.

Joining forces to find solutions

The Wyss Academy understands that forging a new narrative which includes equity and justice as a fundamental part of knowledge creation, policymaking, and decision-making requires involving communities around the globe. Through Policy Outreach & Synthesis the Wyss Academy engages with a wide variety of actors in the co-creation of solutions.

New platforms for a wide range of stakeholders

The Wyss Academy's dialogues on topics like food systems or circular societies engaged stakeholders and contributed to the diffusion of ideas and knowledge. The Food Systems Dialogue in 2021 and the first Wyss Academy Symposium held in 2022 each provided a platform to bring together a diverse group of more than 200 experts from science, policy, and practice to engage, discuss, and learn how to develop pathways to just and sustainable futures for both nature and people in an increasingly connected and complex world.

Additionally, the Wyss Academy was actively engaged at "The Spirit of Bern 2022" to stimulate a broader dialogue among representatives from the private sector, politics, government, and science. At the event over 60 speakers addressed the most diverse facets of the increasingly acute sustainability challenges and called for action.

“We promote innovation by providing a safe space for unconventional questions and critical discussions.”

Strong bridges around the globe

Through Policy Outreach the Wyss Academy builds alliances that can be used to diffuse the solutions we successfully tested. This network will allow us to spread the word and is instrumental for scaling up. From the very start, the Wyss Academy has reached out to many different actors and attracted people by offering different formats of engagement, building a network of allies crucial to a successful sustainability transformation. The worldwide network has already grown enormously, and the first tangible outputs and impacts of our engagement efforts are becoming visible. For instance, the Wyss Academy has been asked to serve as a member of the executive committee of an international initiative working on a global roadmap for building an inclusive circular economy.

Identifying and closing knowledge gaps

The Synthesis Center enables the Wyss Academy to gain access to relevant knowledge from outside the organizational boundaries by synthesizing different perspectives from various stakeholders. At the Synthesis Center, we use our freedom to experiment with different approaches to synthesize knowledge and design new ways of bringing together different people to build on their experiences and foster mutual learning. We work with the assumption that the knowledge for systems transformation is already out there, and that we can bring together the right people to address or bring up relevant questions. To break the silos and link different disciplines, actors, and knowledge systems, the Synthesis Center builds on insights from research, practitioners, and indigenous or local knowledge. The aim is to close knowledge gaps and empower agents of change for systems transformation.



Photo by: Pascale Amez



Photo by: Pascale Amez

— Competence centers: Driving for excellence

Learning, Monitoring & Evaluation



Photo by: Alexander Leuenberger

Rolled out in 2022, Learning, Monitoring & Evaluation (LM&E) proposes a comprehensive framework that enables us to track our projects' progress and understand the drivers and mechanisms of change. In this way, we continuously learn from our experiences and those of others. We aim to share the gained knowledge widely.

A systematic, participatory approach

LM&E is nested within all the areas in which we operate. From the start of each project, we develop impact hypotheses and define key progress indicators and data collection methods that allow regular monitoring, reporting, learning, and knowledge management. These efforts are carried out in close cooperation with our partners and other stakeholders in the communities where we work.

Looking at the big picture

Our LM&E system will ultimately enable us to assess whether the innovations we propose have the expected impact. It supports our work in several ways, including tracking our progress against our and our partners’ objectives and targets, systematically evaluating the outcomes and setbacks of our knowledge-based engagement efforts and outcomes achieved through our incubator projects, enhancing our internal learning, and sharing credible evidence and insights with our partners and the wider community. The system allows us to understand how the science we produce and the knowledge we share with others is used – by whom, how, and with what results – as well as how far along we are in forging new and transformative partnerships with knowledge holders and decision makers, which we consider crucial to achieving on-the-ground systemic, transformative change. Ultimately, we expect that our LM&E system and mechanisms will enable us to demonstrate pathways toward mutually beneficial change for people and nature, which is one of our strategic objectives.

Learning takes place in several ways. Practitioners are informed by research, while region or country-specific solutionscapes and incubators provide researchers with new, contextual insights. We seek to break down boundaries to inspire and promote collaboration across diverse geographies, people, disciplines, and backgrounds.



Photo by: Timon Lanz



Photo by: Timon Lanz

“Improving and proving is our way to trigger change.”

Growing LM&E function

The seeds for a comprehensive LM&E system were sown at the Wyss Academy’s inception. By further incorporating our organizational units, regional hubs, partners, and all relevant stakeholders in this process, we will cultivate a culture of evidence-based and collaborative learning and harvest abundant learnings and improvements.

Our ambition is to embrace different perspectives

Our work combines interdisciplinary, practical, and theoretical knowledge from established academic sources, local practitioners, and indigenous communities. Our knowledge management, a vital part of our LM&E system, will define the processes, tools, and practices by which we generate, share, and use knowledge. Ultimately, what we have learned will be made available to others through the Wyss Academy's engagement within a worldwide network. By sharing our experiences and insights, we aim to catalyze positive change and encourage others to take action on the pressing issues of climate change, biodiversity loss, unsustainable land use, poverty, and increasing inequality.

— Competence centers: Driving for excellence

Research & Innovation



Photo by: Pavel Martiarena Huaman

The Research & Innovation Teams continued to grow in 2022. They are dedicated to pursuing novel ways of generating and sharing knowledge that can be translated into meaningful action. One of their goals is to support the design of pilot projects in the region where we act and guide the implementation through rigorous scientific evaluation.

A network of knowledge

When the Wyss Academy for Nature was founded, it was established that there should be no divides between research, stakeholder engagement, and the testing of solutions in the field.

Our professors and their teams pursue fundamental research questions related to environmental change and its implications for society– and, at the same time, support their colleagues working on the ground in our regional hubs. They are directly involved in the design of pilot projects, and they support project implementation through their scientific evaluation. They delve into local and regional contexts and evaluate how key findings on sustainable development can be used in other places – nearby or on other continents.

We believe that durable solutions are only possible through the inclusion of a broad range of knowledge holders, including indigenous communities and the private sector. The findings from our research are shared and discussed with local actors, as well as with partners and relevant stakeholders around the world.

“We explore new ways to generate and implement knowledge.”

Solution-oriented research

Our goal is to ensure that knowledge is generated not only for its own sake, but that it can be implemented where it is needed. Given the urgent challenges we face in the areas of climate, biodiversity, and land use, Wyss Academy research must be informed by the needs identified in different geographic regions, and it must contribute to pragmatic innovation.

Our research currently comprises four fields relevant to the challenges that the Wyss Academy was created to address: Climate Scenarios for Sustainable Development, Land Systems and Sustainability Transformation, Political Economy and Sustainable Development, as well as Integrative Biodiversity Conservation Science. Two more research fields linked to governance and technology will be added once recruitment is complete.

The Wyss Academy aims to provide new insights for facing the complex challenges of socio-ecological systems, and to show how solutions can be implemented using a systemic approach at the interface of climate change, biodiversity, and land use. We address knowledge gaps by working across academic disciplines and with non-academic stakeholders, as well as by collaborating closely with several research centers of the University of Bern, for example the Oeschger Centre for Climate Change Research (OCCR), the Centre for Development and Environment (CDE), and the Institute of Plant Sciences (IPS).

Mutual benefits for people and nature

The innovations generated within our organization and through broad-based partnerships may have environmental, economic, technical, social, or policy-related dimensions. They all serve the overall goal of a just and sustainable future in which nature conservation and human wellbeing are mutually beneficial. As an example, our engagement to preserve the Amazonian rainforest includes approaches to better monitor the economic, social, and environmental value of forest, thus making these co-benefits more visible to local communities and decision-makers.

Active cooperation between all experts

The Research & Innovation team at the Wyss Academy cooperates actively with other knowledge centers within the organization, such as Policy Outreach & Synthesis and our regional hubs.



Photo by: Jane Wynyard, Save the Elephants



Photo by: Peter Messerli

Hub South America

Catalyzing coalitions to protect the forest and improve people's livelihoods

We co-design land use models that contribute to forest protection as well as people's livelihoods and offer true development alternatives to exploitative resource use.



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.

Landscape

Madre de Dios is a biodiversity hotspot and a rich cultural area, being home to several indigenous ethnic groups. The region contains extensive and largely undisturbed forests that host some of the world's highest levels of terrestrial species diversity and endemism. However, it is also facing significant landscape transformation due to an increase in unsustainable and illegal economic activities, such as expansive agriculture, logging, and mining. To counter these developments, several initiatives aim to encourage sustainable use of natural resources while at the same time improving people's livelihoods.



Photo by: Pavel Martiarena Huaman

Main achievements at hub level

- Strategic Plan for the Buffer Zone of the Tambopata National Reserve (PEZA) Action Plan 2022–2023 officially recognized by the regional government
- PEZA process recognized by the National Service of Natural Areas Protected by the State (SERNANP) as a valid instrument for the governance of land surrounding protected areas
- Coalition to improve the amazon nut value chain (Canasta de Castaña) established through the implementation of five experiments
- Exploration of sustainable tourism and artisanal and small-scale gold mining value chains started



Photo by: Pavel Martiarena Huaman



Photo by: Pavel Martiarena Huaman



Improving human wellbeing
while preventing deforestation
in the Amazon Rainforest

[Read the interview](#)

Challenge 1

Healthy forests for local people

[Read more](#)

Hub South America: Challenge

Healthy forests for local people

The Interoceanic Highway opened in 2011 was a crucial milestone in the socioeconomic development of the Madre de Dios region in Peru (and adjacent areas in Bolivia and Brazil). But this economic artery also opened vast areas of previously undisturbed land to large-scale forms of resource exploitation and the expansion of unsustainable and illegal economic activities. The consequences of these developments going unchecked include forest degradation, river erosion, changes in hydrological regimes, mercury pollution, rising inequality, and decreasing food security. These dynamics are threatening an area of rich cultural and natural diversity that is home to several indigenous ethnic groups and has been classified as a global biodiversity hotspot.

The Wyss Academy is working with local partners to reverse these negative trends and find solutions with mutually beneficial impacts on nature conservation and human wellbeing. The aim is to preserve biodiversity while offering opportunities for sustainable livelihoods, thereby helping to protect these forests of global significance – also in light of the climate crisis.



Our goal

1

To co-develop multifunctional land use models and nature-based solutions in contested forest landscapes that halt biodiversity loss and forest destruction and support local livelihoods.

Co-design of solutions and stewardship

2

Following our 2021 activities, we held several exploratory meetings with potential national-level partners and key local stakeholders, with a view to feeding our projects and actions into the solutionscape. The stakeholders addressed included government agencies, NGOs, academia, youth organizations, and indigenous peoples' organizations.

Our activities

3

- Innovative land governance
- Knowledge dialogue
- Enhancing the amazon nut value chain
- Activities toward a sustainable tourism value chain
- Artisanal and small-scale gold mining

Innovative land governance

The Regional Government of Madre de Dios officially approved the PEZA Action Plan and formalized the technical committee for its implementation and supervision. The SERNANP included the PEZA process as an instrument in its national-level Master Plan.

Knowledge dialogue

A co-design process began with the Amarakaeri Communal Reserve, ACCA, and public institutions linked to the education sector in the Madre de Dios region. The political situation in Peru at the end of 2022 delayed the co-design process to the first quarter of 2023.

Enhancing the amazon nut value chain

Five experiments from among those submitted in 2021 were selected for funding. A co-design process enabled convergence between the solutionscape's challenges and the experiments' objectives. Implementing partners include public institutions (CITEproductivo, IIAP), private companies (Camino Verde, Shiwi), and one NGO (ACCA). The kick-off workshop helped to forge a broad stakeholder coalition and a community of practice to strengthen the amazon nut value chain. The methodology used to organize the experiments' incubator, tendering, and co-design processes was systematized for future implementations. The Universidad Nacional Agraria La Molina is conducting a feasibility study focusing on amazon nut waste transformation.

Activities toward a sustainable tourism value chain

Swisscontact started a participatory process with stakeholders in the Madre de Dios tourism value chain. The aim is to design and implement a sustainable destination development strategy for Tambopata.

Artisanal and small-scale gold mining

The Center for Mining and Sustainability Studies of Universidad del Pacífico is conducting a detailed study to understand the current situation of the artisanal and small-scale gold mining value chain in Madre de Dios. The aim is to determine the main challenges in terms of policy, stakeholder participation, as well as financial and market issues. The researchers also expect to identify potential out-of-the-box solutions to reduce negative impacts on the environment and people's well-being.

Hub South America: Interview

Improving human wellbeing while preventing deforestation in the Amazon Rainforest

The Hub South America focuses on catalyzing collective actions to mutually benefit local communities and promote biodiversity conservation. The activities mainly target the Peruvian Amazon, particularly the Madre de Dios region.



Miguel Saravia

Director of the Hub South America, joined the Wyss Academy in May 2022

What brought you to the Wyss Academy for Nature?

With nearly thirty years of professional experience dealing with sustainable development issues in the Andean-Amazon region, I have designed and implemented projects, facilitated stakeholder engagement, and fostered policy dialogues at various levels. Over time, I realized that stakeholders were working in silos, each one engaged in their own interests and unwilling to leave their comfort zone. However, current times require courage for collective action; that's the only way to move forward to a more sustainable future. We must break down the silos and generate the enabling conditions for all concerned stakeholders to come together and co-design concrete pathways to improve people's lives while protecting the environment. The Wyss Academy offered me the framework to do so. To become a real agent of change and contribute to building a more sustainable future. That's why I am here.



Photo by: Pavel Martiarena Huaman

One of your concerns has been to ensure that local perspectives are represented in the Wyss Academy's projects. Why do you think this is so important?

When we mobilize stakeholders to co-design solutions to a commonly identified challenge, we need to value and take into consideration their knowledge, experience and capacities. By building upon these diverse inputs, we can bridge the knowledge generated in different contexts and by different types of stakeholders. This way we have a better chance of emerging with something novel that responds directly to local realities. At the Wyss Academy, we want to identify what has been done in the past and see if that can be used as a starting point, which is later used by experienced scientists to produce new knowledge. We strongly believe that a different quality of knowledge is generated when research inputs also come from the Global South. We engage in a dialogue between equals to find more effective solutions.

How are you using the evidence presented at events such as the UN COPs to deal with the climate emergency and to preserve biodiversity?

We try to understand how climate change impacts people's livelihoods and biodiversity conservation possibilities. To ensure we have the most up-to-date evidence available, COPs are a very important source of information to design our activities with our partners. We also hope that our activities and research will contribute, with evidence and information, to the discussion of viable actions at COPs. One of the most important aspects is that global conferences can stimulate a political will to do things differently. This is fundamental to bring high-level discussions down to concrete issues, that can then improve the everyday life of local communities and conserve the environment.



Photo by: Pavel Martiarena Huaman



Photo by: Pavel Martiarena Huaman



Photo by: Pavel Martiarena Huaman

The Wyss Academy wants to become a global enabler of innovations for systems transformations. Is there any example in Peru to translate what that means?

Let us consider the impact of gold mining in Peru, which affects biodiversity and attracts illegal mining activities. Our goal is to contribute to the development of a just, small-scale, and artisanal gold mining value chain. Achieving this objective requires us to create a shared vision with local governments, academic and research institutions, NGOs, businesses, civil society organizations, and producer organizations. This will allow us to find lasting answers which can truly change the existing value chain, addressing the cultural issues, the socioeconomic issues, and the political dimensions. However, given that gold mining in Madre de Dios is linked to the global gold market, we also need systemic innovations that can transform the value chain at a global level. This entails engaging governments, international organizations, large private corporations, and consumers in the conversation.

The Amazon nut, known in Europe as the Brazil nut, has always been a focus inside the Hub South America. What is the value of this product?

The Amazon nut, also known as castaña, is a vital non-timber forest product that supports around 20,000 people in the Madre de Dios region, providing a crucial source of income for local communities. By working to improve the value chain with Amazon nut farmers and other key stakeholders, we can increase the return people are getting from the nut trees in the forest areas and reduce the possibility of deforestation. Through multifunctional land use models, people can use forest products in a sustainable way, thereby preventing deforestation while also achieving better economic and social conditions. It is so important to show that people can make a living from the forest and improve their lives without cutting down the rainforest. Without such efforts, the trees will be in danger.

Challenge 1

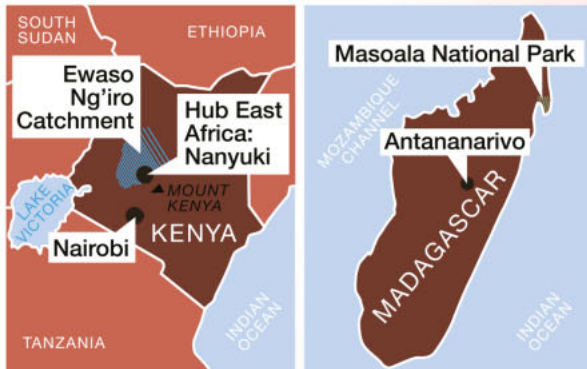
Healthy forests for local people

[Read more](#)

Hub East Africa

Landscape connectivity and fair management of global commons

We work to enable the coexistence of people and nature by maintaining the connectivity, functionality, and health of ecosystems and, in Madagascar, by harnessing the co-benefits of biodiversity hotspots for human wellbeing.



Locations/regions:

The greater catchment area of the Ewaso Ng'iro river in central and northern Kenya and the humid forest landscapes in northeastern Madagascar

Population:

Around 1.1 million in the Kenyan focus region, 55 million in all of Kenya, and 29 million in all of 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.

Kenya

The dry, bushy landscapes of northern Kenya are home to a diversity of flora and fauna uniquely found outside of protected areas. The region is also home to pastoralists who move across the landscape in search of grass and water for their herds. The expansion of agricultural land, large-scale development projects, urbanization, and other changes in land use are all increasing pressure on these semi-arid landscapes, leading to fragmentation and restricting movements of people and wildlife. Although people and wildlife have lived side by side here for generations, intensified land use, the expansion of protected areas, and climate change impacts in the form of more frequent droughts have increased and intensified conflicts between them.



Madagascar

The immense value of Madagascar's natural resources is threatened by deforestation. With the support of various international actors, several protected areas were created, including Masoala National Park in the northeast of the country. Highly globalized commodities such as vanilla or clove offer smallholders new opportunities within agroforestry systems that are ecologically sustainable and socially valued. However, inequalities in the villages are increasing, and food security is still mainly ensured through subsistence rice cultivation on slopes. With restricted access to land, degrading soil quality, shifting cultivation cycles are growing shorter, and people are expanding their cropland into the remaining forests.



Kenya

- Mapping of critical natural asset data for Laikipia and Isiolo counties completed and incorporated into the spatial planning process of Laikipia county
- Sub-catchment management plan (2022–2032) for Waso Mara sub-catchment finalized through a consultative process and approved for implementation by communities and government agencies
- Through a partnership with Save the Elephants, eight Mama Tembos (local Samburu women) trained to collect data and raise awareness of the importance of six dual-purpose migration corridors in Samburu and Isiolo counties
- Music album comprising twelve songs and two music videos about nature conservation and women’s empowerment launched with Samburu female musical artist Titoh Star
- Skills and capacity of Navilla Youth Group in governance, project design, and financial management strengthened to support their leadership in the management of Il Motiok community group ranches
- Main Hub East Africa office set up in Nanyuki and hub director, head of innovation & impact, and head of finance and operations recruited

Madagascar

- Already existing regional-level stakeholder groups consolidated and shared system understanding developed to focus activities of the “Full Circle Initiative” project
- Shared visions of sustainable development among different stakeholder groups in five villages in the Mahalevona valley co-developed
- Five village-level visions integrated at level of overall valley landscape, including views of external actors
- Innovations by small-scale farmers for agricultural and non-agricultural revenues supported with regional expert inputs and financial resources in one village, and progress monitored

Madagascar

- Already existing regional-level stakeholder groups consolidated and shared system understanding developed to focus activities of the “Full Circle Initiative” project
- Shared visions of sustainable development among different stakeholder groups in five villages in the Mahalevona valley co-developed
- Five village-level visions integrated at level of overall valley landscape, including views of external actors
- Innovations by small-scale farmers for agricultural and non-agricultural revenues supported with regional expert inputs and financial resources in one village, and progress monitored



Photo by: Peter Messerli



Photo by: Samira Stalder



Climate change exacerbates conflicts and causes suffering

[Read the interview](#)

Challenge 1

Wealthier people in healthier semi-arid landscapes

[Read more](#)

Challenge 2

Saving wetlands to support livelihoods and wildlife

[Read more](#)

Challenge 3

Harnessing benefits of biodiversity hotspots to improve people's wellbeing

[Read more](#)

Hub East Africa: Challenge 1

Wealthier people in healthier semi-arid landscapes

The northern Kenya region is facing rapid and profound transformations within society and the environment. The livelihoods of pastoralists and smallholder farmers are impacted by more frequent droughts, changing seasonal rainfall patterns, the spread of invasive plant species, and ongoing degradation of biodiversity, soil, and water resources. This is coupled with the effects of an increasing population, including immigration from other parts of Kenya because of opportunities arising from large- and small-scale development projects such as the Lamu Port-South Sudan-Ethiopia Transport Corridor (LAPSSET). This, in turn, increases the pressure on land and natural resources, causing competition and conflict. The space for wildlife and pastoralists to breed, graze, and migrate through the landscape is diminishing and becoming increasingly fragmented. Communities' livelihoods and wellbeing are under threat. Conflicts are on the rise, not least over how to govern "common-pool resources". And the capacity of nature to deliver vital ecosystem services is being compromised. A careful balance between nature conservation and development is therefore key.



Our goal

1

To maintain multifunctional semi-arid landscapes and strengthen landscape connectivity to maximize co-benefits between nature and people.

Co-design of solutions and stewardship

2

With a focus on the OI Donyiro and Naibunga Community Conservancies, we set the foundation for defining a vision for these areas and forging an institutionalized and operational coalition to develop a strategy to take a joint vision forward. With partners including Northern Rangelands Trust and CETRAD, a shared understanding of system dynamics created the opportunity to develop new visions and combine them with those existing in the landscape. This ongoing work builds on the initial co-design process undertaken in 2019 and serves to further integrate the running incubators and boost synergies for system transformation. In addition to carrying out a sensitivity analysis to understand system dynamics in OI Donyiro and Naibunga, the interdisciplinary research team on water scarcity is contributing to our systems understanding and providing opportunities to explore further incubators. At the same time, concrete innovations are being co-developed and tested on the ground to increase landscape connectivity for shared use by people, livestock, and wildlife. In parallel, the development of a participatory and evidence-based county-level spatial plan will serve to prepare the process through which such landscape connections – for example, dual-use corridors – can be officially recognized and gazetted. The collaboration with the National Land Commission of Kenya is a process through which such approaches developed at county level may be scaled.

Projects underway

3

- Pilot for national inventory of fragile ecosystems
- Dual-use migration corridors
- County-level spatial planning in Laikipia county
- Youth-led conservation

Pilot for national inventory of fragile ecosystems

This pilot project made significant headway in developing a spatial inventory of fragile natural assets vital for people and wildlife in Kenya's semi-arid lands (Laikipia, Samburu, and Isiolo counties). The data includes information on springs, wetlands, wildlife concentration and dispersal areas, and pastoral migration routes. Even though these are critical assets for both the local population and wildlife, they had not been systematically mapped – and what is not known beyond the local community cannot be protected and managed on higher levels of governance. In 2021, a multisectoral task force was established to accompany the project under the lead of the National Land Commission of Kenya, which was instrumental in co-designing the pilot. In 2022, we expanded our data sourcing approach, including community members from the regions to collect data. This not only enhanced participation and awareness of the work being carried out, but also improved our efficiency. Data collection was completed in Isiolo and Laikipia counties and initiated in Samburu county. In combination with the dual-use corridors and county-level spatial planning activities, this project incorporates vertical and horizontal governance systems (at the community, county government, and national government levels) to improve the management of these natural assets.

Dual-use migration corridors

This project serves to develop and test the implementation of approaches to secure migration corridors in practice (at the community level) and in law (at the government level) for both wildlife and livestock. These corridors are critical routes by which people and their livestock, as well as wildlife, can move around northern Kenya to access seasonal pasture and water resources. The ability to move provides a certain resilience to challenges such as drought and other environmental uncertainties, as well as enabling people and animals to navigate pressures that come with competing claims on the land. In 2022, six meetings were held in four different community conservancies with stakeholders from the community and local government to enhance recognition of the corridors. Eight Mama Tembos (Samburu women known as “mothers of elephants”) have acquired the skills and capacity to collect data on use of the corridors by different species and on threats facing the corridors. Through their work, they try to mitigate these threats at the community level by sensitizing people and organizing meetings. The corridors are implemented through a partnership involving [Save the Elephants](#), the [Northern Rangeland Trust \(NRT\)](#), and the [Centre for Training and Integrated Research in ASAL Development \(CETRAD\)](#).

County-level spatial planning in Laikipia county

As part of the Kenyan constitution and the devolution process, counties must develop a county spatial plan that forms the basis for a county integrated development plan. In 2020, this process was identified as a key policy window for the Wyss Academy that could support the integration of vital natural assets and especially the corridors within economic and social development strategies and spatial plans. In 2022, we broadened the stakeholder engagement process beyond collecting natural asset data on community and government land in Laikipia county. A series of workshops were held that incorporated large private landowners, or large tracts of land held in trust, in the spatial plan development process. It was critical that access to these lands was granted as a result of the workshops to enable the collection of data on their natural assets and their incorporation into the plan. By establishing a process with stakeholders from different government agencies, by navigating the spaces between community governance systems, county government laws and regulations, and their integration with national government policies, and by providing technical support, the Wyss Academy has enhanced the quality, quantity, and availability of baseline data and their relevance to the different sectors governing decision-making in the country.

Youth-led conservation

Building on the strength of the partnership forged in 2021 between the Wyss Academy and Navilla Youth Conservation Group, 2022 brought in firmer engagement with the youth group. Having more than 600 members spread across Laikipia county, the group has significant mobilization power. The core committee is highly motivated, with a strong desire to achieve their vision of “an educated, empowered, and peaceful community that coexists with wildlife across healthy landscapes”. In 2022, we focused on strengthening their skills and capacity to carry out activities that support their vision, including governance, financial, and project design and management skills. We partnered with them to reseed sections of the conservation area of Il Motiok Group Ranch. And in preparation for collaborative activities with stakeholders from the wider landscape, we carried out a workshop to understand their priority needs and the main challenges they are experiencing in achieving their vision. We also continued our partnership with Titoh Star, a young Samburu singer, who is passionate about the natural world and women's empowerment. A music album along with music videos were launched to engage more youth within the landscape.

Hub East Africa: Challenge 2

Saving wetlands to support livelihoods and wildlife

In the rangelands of northern Kenya, the wellbeing of humans, wildlife, and ecosystems is constrained by the limited availability of water. Like many other ecosystems in the region, the capacity of the Gambella wetlands north of Mount Kenya to deliver vital ecosystem services to people, livestock, and wild animals has dramatically declined. The causes include economic development, population growth, and climate change. Several interventions by government and international development organizations have failed to reverse this vicious trend. The ineffectiveness of past and current governance and management systems has led to a “tragedy of the commons” situation where the most powerful actors dominate utilization of the available natural resources. The most vulnerable local communities are farther marginalized, ecosystem services are threatened, and conflicts are intensifying. This calls for innovative governance, technological and financial solutions for water and landscape governance and management to be collectively identified, designed, and implemented.



Our goal

1

To secure sustainable spring water contributions to dry season flow in the lower Ewaso N'giro river, for the mutual benefit of ecosystems, wildlife, and people.

Co-design of
solutions and
wetland
stewardship

2

CETRAD, as the key partner of the Wyss Academy in Kenya, has established an inclusive and broad stakeholder engagement process to co-design innovative solutions for the integrated development and management of the Waso Mara sub-catchment and the Gambella wetlands. Informed by local knowledge and in-depth ecological, hydrological, and socioeconomic research conducted as part of this initiative, we developed a joint vision for the future of the sub-catchment and the wetlands, and we are crafting complementary pathways to achieve it.

Projects underway

3

Socio-technical innovations for just sustainable governance of the Gambella wetlands

The aim of this intervention, implemented in partnership with CETRAD, is to develop a model for the restoration and management of sub-catchments, wetlands, and springs in the semi-arid lands of Kenya. A major achievement in 2022 was that the water resource user association (WRUA) in charge of the Waso Mara sub-catchment is now officially recognized by the government, and has been reformed to be more transparent, inclusive, and able to deliver its mandate. The engagement and co-design activities resulted in an integrated sub-catchment management plan for Waso Mara WRUA (2022–2032) that was published in 2022 and is recognized and approved by the involved communities and the respective government agencies. This plan guides the launch and implementation of further activities of the WA in the Waso Mara sub-catchment in areas such as the protection of the springs and wetlands in Gambella, diversification of livelihoods through sustainable harvesting and marketing of dryland gums and resins, and removal of unpalatable invasive plant species to help restore rangelands.

Hub East Africa: Challenge 3

Harnessing benefits of biodiversity hotspots to improve people's wellbeing

Madagascar is one of the world's most important biodiversity hotspots. As such, it is threatened by deforestation. With the support of various international actors, several national parks were created, including the Masoala National Park in northeastern Madagascar. While deforestation in the core areas of the park has been brought under control, it has increased in the areas surrounding the park. This is due to increased human pressures, partly because smallholder farmers have lost access to some of their previous land. Highly globalized commodities such as vanilla or clove offer new opportunities to smallholders within agroforestry systems, which can have positive outcomes for both nature and people. However, these geographically remote regions depend on their high conservation value and on the National Park as well as on the income derived from globalized high-value commodities. Both are subject to conflicting and uncoordinated agendas and interests of many, often distant, actors. Identifying shared interests and enabling novel, broadly owned interventions will be a challenge – but one that is of paramount importance.



Our goal

1

To co-design sustainable livelihood activities together with local land users that help preserve the biodiversity-rich humid forests and buffer against volatile cash crop markets, by combining a local small-grants scheme in five villages of the Mahalevona valley with valley-wide interventions fostering the digital accessibility of this remote area.

Co-design of solutions and stewardship

2

Stakeholders from government, conservation organizations, local communities, and private business were involved in co-design through regular interactions at the district level, including an analysis to gain a shared system understanding.

A shared understanding of systemic challenges at the regional level and a corresponding vision for the entire valley was formulated based on visions for five individual villages developed by different groups (young people, elderly, men, women).

Projects underway

3

Diversifying agricultural and non-agricultural revenue

The aim is to diversify agricultural as well as non-agricultural revenues of farmer households from existing plots (e.g. into honey production, fish farming, vegetable production), in order to diversify their overall livelihood portfolio. The aim is to reduce their reliance on expanding agricultural land into the remaining forest areas and buffer them against shocks, such as drops in cash crop prices or cyclones destroying harvests. Specific activities based on farmers' own priorities are ongoing in the five intervention villages and are strengthened through regular tailored advice from experts and technicians. Local innovations include:

- Collection, selection, and treatment of seeds for tree nursery
- Improved cultivation techniques and arrangement of cultivation plots
- Improved techniques of beekeeping: technical equipment, improved hives
- Improved techniques for farming: vaccines, chicken house, numerous and large ponds
- Experimentation with own ideas, for example feeding jackfruit to fish
- Improved skills in hosting and service

Hub East Africa: Interview

Climate change exacerbates conflicts and causes suffering

The Hub East Africa began its activities in Kenya and, in 2022, expanded to Madagascar. Ongoing projects in both countries focus on identifying and implementing transformative actions that balance nature conservation with the needs of local communities.



Dr. Benson Okita

Director of the Hub East Africa, joined the Wyss Academy in April 2022

What brought you to the Wyss Academy – or brought the Wyss Academy to you?

Prior to joining the Wyss Academy, I worked for the Kenya Wildlife Service, and with Save the Elephants, focusing on endangered species conservation. But along the way, I realized that these species cannot be conserved in isolation, without also considering people and healthy, functional habitats. The Wyss Academy views conservation through a holistic lens. This new perspective and the possibility to pass on my experience to the next generation are great motivators for me. The scientific understanding of the species that I gained can now be passed on and shared with new colleagues. Co-designing projects with all parties involved before taking action is an effective way to work.



As the new Hub Director, having joined the team in 2022, what is your current focus?

In our country, climate change is causing a lot of suffering and exacerbating conflicts. We need to act quickly to have a visible impact. First of all, I need to build a team. Soon we will have four active team members in our hub. We also need to establish systems that allow us to work efficiently. There are numerous players in our landscape working on similar issues, and we're talking to them and building synergies. The question is: how can we contribute most to make a real difference for people's lives and conservation? Our actions will be based on evidence, which means that monitoring must be established from the very beginning. We need to collect data, analyze it, create a knowledge platform and make it available for decision making. To make a real difference, we must get to the core of each issue and come up with effective solutions.



Photo by: Samira Stalder

Kenya and Madagascar: why these two countries?

Some of my colleagues worked in Madagascar and identified land-use issues that require attention. Due to its size, Madagascar faces specific challenges, such as maximizing revenues from small agricultural areas. People need sufficient income from small farms. One of the questions we are interested in is: how can livelihoods be improved through entrepreneurial roles? On the other hand, we think the knowledge we gain from our activities in Madagascar can then, to a certain degree, also be applied to improve land use in Northern Kenya. Since we don't have an office in Madagascar yet, we co-design our projects in partnership with the University of Antananarivo. They help us gain better access to digital audiences, as it is very important for us to reach young people via smartphones. After all, they are the ones who will shape the future.



Photo by: Alexander Leuenberger

Kenya is the focus of an interdisciplinary project on addressing water scarcity. Can you tell us more about it?

Water is a resource that is utilized by so many parties, including wild animals, pastoralists, households, and industries. In the Mount Kenya, region where we work, water is scarce and water sources and catchment areas are often managed by completely different entities. This situation leads to conflicts between wildlife and human communities. We try to understand whether this scarcity is caused, for example, by climate change, by land use, or perhaps by water governance issues. One way we try to tackle this issue is by developing solutions for harvesting water, for example by collecting water drops from mist or fog. This requires new techniques, and it is our task to find the expertise and bring suitable engineers into the project. Solving water scarcity is always a multidisciplinary task.

How did you start implementing the spatial inventory of fragile and vital ecological assets in the semi-arid areas of Kenya?

We have huge landscapes with important biological assets like springs, forests, wetlands, and corridors for wildlife and livestock movement. Today, these assets are mostly used by whoever got there first. This leads to conflict and, in the case of springs, exacerbates water scarcity. If you do not manage and protect these important biodiversity assets, it leads to even more water scarcity, and even more conflict – the vicious cycle continues.

The National Land Commission has asked the Wyss Academy for support in mapping biological assets so they can take the next step and protect them. It is important to have legal instruments to govern and to motivate communities to come together and define the rules. In cooperation with the communities, so far, the Wyss Academy has mapped biological assets of two counties in Kenya. Now that we have two successful examples, it will be easier to scale this mapping approach to other areas. There are more than thirty counties in the semi-arid landscape that require their natural assets to be mapped. We must work fast to conserve biological assets in this fragile landscape.

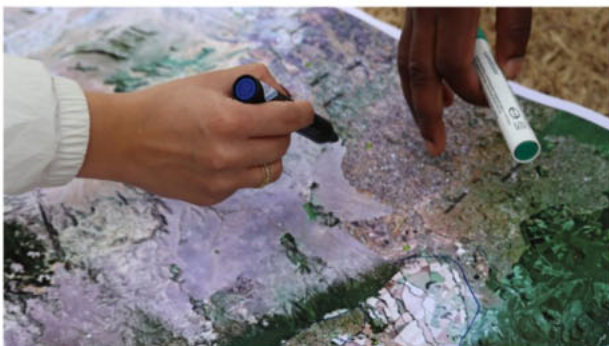


Photo by: Timon Lanz



Photo by: Samira Stalder

Challenge 1

Wealthier people in healthier semi-arid landscapes

[Read more](#)

Challenge 2

Saving wetlands to support livelihoods and wildlife

[Read more](#)

Challenge 3

Harnessing benefits of biodiversity hotspots to improve people's wellbeing

[Read more](#)

Hub Southeast Asia

Landscapes providing bundles of ecosystem services

We counter illegal resource extraction through local stewardship, and we work to maintain multifunctional landscapes that benefit agriculture, development, biodiversity, and society.



Location/region:

Different landscapes in northern and central Laos

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.



Photo by: Anne Fritzenwanker, @Travelbee_photo

Region

Laos was isolated from the international community over decades. The country's economic opening has accelerated economic growth, which so far has relied largely on the extraction of natural resources. Weak governance, poor law enforcement, uneven power distribution, and rapid social transformations are posing tremendous challenges for protecting the environment and the rights of local communities. Local livelihoods are increasingly undermined by declining access to and availability of natural resources, and by the erosion of degrading landscapes' capacities to provide multifunctional services.



Photo by: Anne Fritzenwanker, @Travelbee_photo



Photo by: Anne Fritzenwanker, @Travelbee_photo



Photo by: Anne Fritzenwanker, @Travelbee_photo

Main achievements at hub level

- Formal setup of the Hub Southeast Asia clarified through a partnership and hosting agreement with the Regional Community Forestry Training Center for Asia and the Pacific (**RECOFTC**) in Bangkok; additional partnership agreements with the Lao office of the Centre for Development of Environment (**CDE**) for specific activities in Laos clarified
- Different challenges and related solutionscapes identified in which the Wyss Academy and partners will co-design activities
- Initial set of projects launched in Laos and Thailand
- Substantial body of knowledge elaborated to scientifically substantiate the value of maintaining multifunctional landscapes and their respective bundles of ecosystem services in Laos



Building powerful positive transformation in Laos

[Read the interview](#)

Challenge 1

Local resource stewardship in tropical forest frontiers

[Read more](#)

Challenge 2

Maintaining diversity in mosaic landscapes

[Read more](#)

Hub Southeast Asia: Challenge 1

Local resource stewardship in tropical forest frontiers

Many of Laos's highest-value biodiversity areas have, over the past two decades, been designated as National Protected Areas. These cover vast tracts of primary forest. Additionally, a system of Provincial Protected Areas covers secondary forests and other valuable ecosystems, which, however, have received little attention and support in practice. These areas are inhabited by local subsistence farming communities who rely heavily on hunting and gathering wild products. At the same time, the demand for land, timber, and non-timber forest products – plants and animals – has sharply increased over the past decades, primarily from neighboring countries. Increasing pressure on these resources, mainly from external actors, combined with limited capacities for law enforcement by Lao authorities, has caused a rapid decline in biodiversity. While the protected area status brings about various restrictions for local subsistence farmers, it also offers opportunities for stewardship roles if the necessary basic conditions can be realized.



Our goal

1

To identify innovative approaches and initiatives to counter exploitative resource extraction activities and land use change through strengthened local stewardship roles.

Co-design of solutions and stewardship

2

Given continued travel restrictions, the focus in 2022 was on enhancing the systemic understanding of the forest frontier regions in Laos, and a first project was launched in a bordering province in Thailand. Through a collaboration with the **Elephant Conservation Center** in Sayaboury province and the Lao office of **CDE**, a number of meetings and workshops were conducted with key stakeholders in these landscapes in preparation of the co-design and visioning process to identify and launch specific projects in Laos in 2023.

Projects underway

3

Tree4All pilot in Nan Province, Thailand

Similar to landscapes in Sayaboury province in central Laos, shares of Nan province in Thailand are characterized by smallholder monoculture maize cultivation in the vicinity of forested protected areas. The aim of this project in partnership with **RECOFTC** is to develop and test innovative finance mobilization approaches and business partnerships to enhance ecosystem-based climate resilience of smallholders in Nan province. The project facilitates planting of multipurpose trees in the monoculture maize landscape, thereby also reducing pressure on remaining forested landscapes. By the end of 2022, smallholders had planted over five thousand largely native trees with the help of the various financing mechanisms developed. Additionally, we established a community-led nursery for tree seedlings and created a prototype of a spatially explicit tree monitoring system.

Hub Southeast Asia: Challenge 2

Maintaining diversity in mosaic landscapes

Because of its rugged terrain, low population density, and previous political and economic isolation, Laos still holds considerable shares of multifunctional landscapes.

Characterized by smallholder agriculture, old-growth, secondary, and riverine forests, as well as aquatic habitats, these landscapes have high levels of bio- and agrobiodiversity, and they provide many and varied benefits to people both locally and far away. They also constitute a key ecological infrastructure in addition to the formally protected areas. The economic development blueprint in Laos over the past twenty years has been based on the paradigm of “turning land into capital”. This has influenced national policies, leading to a homogenization of the landscape, with large-scale commercial crop plantations increasingly becoming the dominant form of agricultural land use. The associated loss of biodiversity and erosion of the landscape’s multifunctional services undermine local people’s nature-based livelihoods and resilience. Moreover, they affect the provision of ecosystem services – including water purification, disaster risk reduction, climate change adaptation, and provision of nutritious food – also for more distant actors.



Photo by: Anne Fritzenwanker, @Travelbee_photo

Our goal

1

To maintain diverse and multifunctional landscapes in order to maximize co-benefits between nature and people, secure resilience against climate change, and halt biodiversity loss.

Co-design of solutions and stewardship

2

As the establishment of the Hub Southeast Asia and the activities in Laos were still in their early stages, the focus in 2022 was on demonstrating the value of maintaining multifunctional landscapes in terms of co-benefits and trade-offs among agriculture and economic development, biodiversity, climate change mitigation, and livelihood security. The scientific work centered on gathering, integrating, and analyzing data and information in order to quantify and spatially delineate the supply of and the various demands for ecosystem services. The resulting knowledge provides a valuable basis for the upcoming co-design and visioning process that will serve to identify and launch new incubator projects.

Projects underway

3

Rewarding agrobiodiversity through value chains

The goal of this project is to showcase and preserve agrobiodiversity in multifunctional landscapes for the benefit of people and nature. To achieve this, we are developing innovative approaches to building inclusive and sustainable value chains, with a particular emphasis on non-timber forest products (NTFP). In 2022, we laid the foundations for creating such value chains. We contacted and talked with various actors from government, civil society, and the private sector to collect ideas on potential value chains, actors, and locations. Further, we established a partnership with **Swisscontact** in Laos to jointly conduct a co-design process with relevant actors in the second trimester of 2023. We started a national database of agrobiodiversity champions in Laos that will later be used as a tool to enhance exchange and learning between these actors, also as an approach to scaling. Finally, we re-designed the online platform of the local **Pha Khao Lao** partner initiative to better integrate knowledge on multifunctional landscapes and more explicitly showcase their value within the overall awareness creation mandate of Pha Khao Lao.

Projects underway

3

Quantifying values of ecosystem services

Quantifying and spatially representing supply of the bundle of ecosystem services provided by landscapes is an essential step toward effectively communicating the values of landscape functions to different stakeholders. It is also a prerequisite for analyzing what services will be lost, and to whom, if multifunctional landscapes are transformed into more monofunctional large-scale commercial production landscapes. Using high-resolution digital information bases on environmental, agricultural, and social aspects, a range of different provisioning, regulating, supporting, and cultural ecosystem services were modeled and quantified spatially across the whole of Laos. The results of a participatory household survey in Savannakhet province in Southern Laos provided detailed insights into the demand for different ecosystem services from different parts of a landscape. The resulting rich knowledge base provides a unique basis for discussions among actors on the values of different services that the ecosystems of specific landscapes provide, and on potential winners and losers in different development scenarios.

Hub Southeast Asia: Interview

Building powerful positive transformation in Laos

The Hub Southeast Asia has the goal to give voice to local communities and address their needs by co-designing and implementing projects that reverse trends of landscape homogenization and biodiversity loss.



Andreas Heinimann

Head of Regional Stewardship Hubs, joined the Wyss Academy in November 2020

One of your current responsibilities is to act as an enabler and facilitator of the Hub Southeast Asia. Do you have a particular connection with this region?

Having worked in and on Southeast Asia for more than two decades, and with my kids partly growing up there, I have developed a deep personal bond and emotional attachment to this region and its people. This connection can provide a unique perspective, you can understand many things differently and you're embedded in the region. Since the late 1990s, I have seen first-hand big changes in land use and infrastructure development in Laos. Based on the newly constructed Chinese high-speed train, you can now travel from Vientiane to Luang Prabang in two hours. Only a few years ago, the same route used to take seven hours by car. Clearly, there is a need for infrastructure development, but there are frequently only a few winners and many losers. While the macroeconomic development of Laos is stunning and poverty rates are declining, inequality is on the rise.



Photo by: Anne Fritzenwanker, @Travelbee_photo

Laos is one of the most biologically diverse countries in the world. Can you tell us about what you’ve encountered there?

Besides remaining old grown forests in protected areas, Laos harbors a lot of biological assets in its still widespread diverse mosaic landscapes. This includes small-scale agriculture, secondary forest, and aquatic resources. We call it a multifunctional landscape, as it delivers a bundle of different services to many actors from a local to a global level. However, the development rationale of the local political system is still focused on economic development and turning land into capital. The multifunctional landscapes are strongly undervalued in this approach. Laos would have a unique chance to maintain these landscapes and not follow a “develop and clean up later” trajectory as many countries did. At the Wyss Academy, we aim to make a difference by concretely exploring and testing approaches towards another pathway.

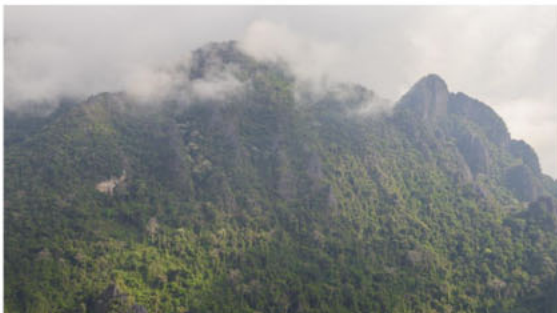


Photo by: Anne Fritzenwanker, @Travelbee_photo

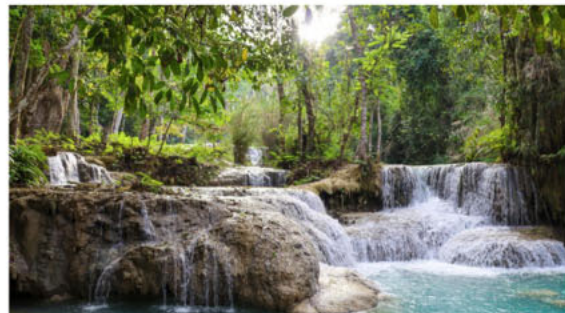


Photo by: Anne Fritzenwanker, @Travelbee_photo

The Hub Southeast Asia has undergone a few developments. Where does it currently stand?

Out of the four regional hubs, Southeast Asia is the youngest. Laos implemented some of the strictest COVID-19 measures, including the complete closure of borders until May 2022, which prevented traveling to the country. Digital meetings have limited value in setting up a hub institutionally and building partnerships. So, during this time we have launched some small activities. For example, working with an organization in Thailand to find new ways for small landholders to reinsert native multi-purpose trees into a mono-cultural landscape of maize. This solution promotes landscape heterogeneity with co-benefits for people and nature.

Today, we are very happy to have found a hosting agreement with the Regional Community Forestry Training Center for Asia and the Pacific (**RECOFTC**). This is a regional organization with a vision for local communities and they are actively managing forests in Asia and the Pacific to ensure optimal social, economic, and environmental benefits. Our organizations match very well, and with this locally respected organization we now have a legal basis to work in the region. The next step will be to recruit staff and then things will really start to move.



Photo by: Anne Fritzenwanker, @Travelbee_photo

One of the University of Bern’s strategic research centers, the Centre for Development and Environment (CDE), has been a key partner in the region. How are you building on their knowledge?

I was involved with CDE in Laos for a considerable period of time prior to joining the Wyss Academy. CDE is strongly engaged in research for development and at the science-policy interface. It is also highly respected in the region. I would even say they are champions in the field of breaking silos in data and knowledge sharing. They know how to cooperate with multiple ministries and many online data platforms. So yes, we will continue to work with CDE once our hub is established, as they are a valuable knowledge partner in our efforts. We are convinced that sharing our experiences will lead to an even greater impact.

Why is it important to engage partners from the private sector?

Innovation doesn't necessarily come out of science. Frequently, it comes from entrepreneurs at the fringes of science and practice. The private sector, especially social entrepreneurs and startups are a huge source of innovation. Of course, we need to deal with risks like greenwashing, but there's great potential for innovation and we really want to tap into it. One of our partners is **Brainforest**, a venture studio for forests and climate. We are currently developing an innovation fund mechanism at the Wyss Academy with help from Brainforest and other private sector partners. They have much more experience in-house than we do and we see a lot of mutual benefits. The innovation fund will be piloted and deployed across the hubs in 2023. This has the potential for a powerful positive transformation.

Challenge 1

Local resource stewardship in tropical forest frontiers

[Read more](#)

Challenge 2

Maintaining diversity in mosaic landscapes

[Read more](#)

Hub Bern

Designing our world for sustainability

We work to promote sustainable human activities and people–nature interactions in ecologically sensitive areas, enable a transformation to sustainable energy systems in urban and rural regions, including carbon-neutral tourism, and encourage steps toward a more sustainable food system.



Location/region:

Canton of Bern, Switzerland

Population:

Over 1 million

Biodiversity:

Biodiversity in the Canton of Bern is under multifaceted pressure. The status of aquatic biodiversity is significantly worse than that of terrestrial biodiversity. As a mountainous, agricultural canton, Bern is heavily affected by global climate change. It is experiencing an increase in dry summers, heavy precipitation, high-temperature days, and snow-poor winters.

Region

Switzerland faces numerous challenges that threaten its diverse natural and cultural landscapes. These challenges are wide-ranging and include both specific practices and the general lifestyles of local society. Most of the Swiss population’s environmental impact originates from transport, housing, and food. The Wyss Academy intends the Hub Bern to be a source of inspiration for other European regions that will also one day need to redefine the relationship between their people and nature. The Hub Bern’s incubators focus on a range of different but interconnected topics, such as carbon reduction and renewable energy, the circular economy and regional value chains, ecological infrastructure and functional ecosystem services, and the restoration of biodiversity in water bodies and on land. All of these issues have an impact on nature and on the people living in Switzerland’s cultural landscapes.



Stopping biodiversity loss in water bodies – despite climate change

This year the Wyss Academy has focused on a project to stop biodiversity loss in water bodies, despite the challenges posed by climate change. The project involves the development and implementation of new strategies together with the relevant actors to protect and restore aquatic ecosystems in Switzerland and beyond.

The project focuses on freshwater habitats, which are among the most threatened ecosystems globally. Climate change, pollution, and other human activities have had a severe impact on these habitats, causing biodiversity loss and water quality degradation.

In the first project phase, which will be concluded at the end of 2023, the project partners are collecting high-resolution data on fish diversity and ecological needs in the Aare catchment. The effects of human-made factors on fish distribution were statistically analyzed alongside climate models. A participatory process with stakeholders was launched to jointly prioritize measures and define pilot projects for implementation in the Canton of Bern and throughout Switzerland.

The project is expected to have a significant impact on freshwater conservation and to help mitigate the effects of climate change on aquatic ecosystems.

Stopping biodiversity loss in water bodies – despite climate change

This year the Wyss Academy has focused on a project to stop biodiversity loss in water bodies, despite the challenges posed by climate change. The project involves the development and implementation of new strategies together with the relevant actors to protect and restore aquatic ecosystems in Switzerland and beyond.

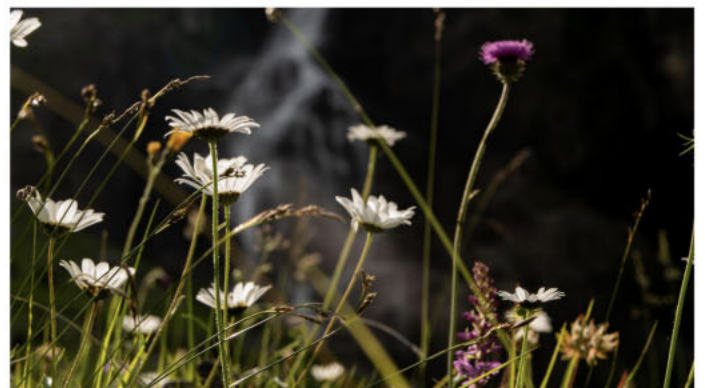
The project focuses on freshwater habitats, which are among the most threatened ecosystems globally. Climate change, pollution, and other human activities have had a severe impact on these habitats, causing biodiversity loss and water quality degradation.

In the first project phase, which will be concluded at the end of 2023, the project partners are collecting high-resolution data on fish diversity and ecological needs in the Aare catchment. The effects of human-made factors on fish distribution were statistically analyzed alongside climate models. A participatory process with stakeholders was launched to jointly prioritize measures and define pilot projects for implementation in the Canton of Bern and throughout Switzerland.

The project is expected to have a significant impact on freshwater conservation and to help mitigate the effects of climate change on aquatic ecosystems.



Photo by: Natalia Peralta



Tourism regions are both victims and drivers of climate change

[Read the interview](#)

Challenge 1

Sustainable human interactions in sensitive nature areas

[Read more](#)

Challenge 2

Accelerating the energy transition

[Read more](#)

Challenge 3

Development of the “Grosses Moos” region

[Read more](#)

Hub Bern: Challenge 1

Sustainable human interactions in sensitive nature areas

Biodiversity in Switzerland is suffering. Almost half of the habitat types and half of all native species are threatened or potentially threatened. To curb the loss of terrestrial and freshwater biodiversity, and in accordance with the UN Global Biodiversity Framework (GBF), Switzerland needs a functioning ecological infrastructure: a network of biodiversity hotspots and interconnected protected areas throughout the landscape. Within this network, the status and quality of habitats need to be improved and invasive species controlled. However, regions with a dense network of protected areas are also highly popular recreation areas, and increasing visitor impacts on biodiversity and ecosystems are posing major challenges. Therefore, human activities in nature parks and near protected areas must be developed jointly by all actors and aligned with biodiversity goals.



Photo by: Ramona Michel

Our goal

1

To identify and initiate first systemic, innovative solutions that enable sustainable human interactions in sensitive nature areas.

Co-design of
solutions and
stewardship

2

- The Wyss Academy advisory committee members were invited for a field visit to a regenerated raised bog near Bern, with inputs on the importance of bogs in biodiversity conservation and climate protection, as well as on the goals and activities of Hub Bern projects.
- Swiss and European bog experts shared their knowledge and experience with Swiss policymakers and practitioners and jointly worked on identifying best practices for the regeneration of raised bogs.
- A draft technical plan for ecological infrastructure in the Canton of Bern was developed.
- Various sensitization and visitor management measures were tested and monitored in the three Bernese nature parks.
- A test survey with 500 people about forest fire awareness was completed; several indices (e.g. foehn and bise) were computed; daily meteorological fields were calculated at a scale of one by one km; and an analysis of past forest fires on the northern side of the Alps was concluded.

Projects underway

3

Ecological infrastructure of the Canton of Bern

Technical planning of ecological infrastructure for the Canton of Bern

Stopping biodiversity loss in water bodies – despite climate change

Integrated management of the Aare River (climate, biodiversity, infrastructure)

Regenerating raised bogs more efficiently and more effectively

Accelerate and implement raised bog regeneration campaigns

Hydrology of the Bernese Fens

Define and manage the hydrological buffer of fens

Master plan for the management of invasive non-native species

Dealing with invasive species

Nature park stations in Bernese parks

Development and testing of sensitization and visitor management approaches and tools (Chasseral, Diemtigtal, Gantrisch)

Forest fire management

Development of a climate-change-adapted risk management system to prevent and control forest fires

Hub Bern: Challenge 2

Accelerating the energy transition

In 2018, Switzerland's per capita greenhouse gas footprint was around 13 tons of CO₂ equivalents – which is well above the average of EU countries. The required shift from current modes of production and consumption to a new, more sustainable energy model must quickly be implemented in order to achieve the Paris Agreement goal. Many, very diverse activities have emerged to target specific domains such as energy production, mobility or housing, but a systematic and participatory approach that addresses all sectors emitting greenhouse gases and includes local stakeholders is lacking. As urban areas and rural regions face very different challenges in achieving the energy transition, technological, social, and financial innovations need to be collectively designed and implemented at the local level.



Photo by: Ramona Michel

Our goal

1

To implement participatory approaches at different local levels in urban and rural areas and thereby identify and initiate first innovative solutions to accelerate the process toward climate neutrality.

Co-design of solutions and stewardship

2

- Key stakeholders from various authorities, local governments, municipalities, and private businesses are working together to identify and co-design innovative solutions suitable for cities and rural areas.
- First incubators supporting rural areas in reaching climate neutrality were started (CO₂-free ski resort, H₂ powered lake navigation).
- A digital participation platform focusing on climate issues was established.
- The technical feasibility of concrete recycling and economic incentives via creditability of carbon savings were further developed with stakeholders.
- Six incubators were (e.g. building with regional or own wood, innovative products from hard-to-sell raw wood assortments) started in the Oberland and Emmental regions to achieve sustainable regional forest and wood value chains.

Projects underway

3

Climate neutral region Oberland-Ost

Support the Oberland-Ost region in achieving climate neutrality

From PlusEnergy Neighborhoods to the PlusEnergy City

Support Bernese cities in achieving a plus-energy balance

Efficient use of biomass potential for energy production

Generate, synthesize, and share knowledge about biomass potential for energy transitions, and mobilize key stakeholders

Regional value chains for forest and wood

Improve the forest and wood value chains in the Oberland and Emmental regions

Circular Economy Entrepreneurs CE²: Promoting the circular economy

Support engagement activities toward a circular economy; organize annual CE² conference

Substitute raw materials in the circular economy

Generate, synthesize, and share knowledge about material flows and start a first incubator for 100 percent recycled concrete

Hub Bern: Challenge 3

Development of the “Grosses Moos” region

Current food production systems have significant negative environmental impacts. While many individual initiatives and concepts exist, a comprehensive, cross-actor and cross-value-chain vision for sustainable, resilient food systems in Switzerland is lacking. Knowledge about the state of the soil, which is key for sustainable production, is largely missing. Environmentally and socially compatible food systems require both sustainable food production (agriculture) and sustainable consumption. The value chain from food production to consumption includes processing, trade and retailing. Here, too, there is a need for a systemic approach with concrete incubators in the Canton of Bern.



Our goal

1

To identify and initiate the first innovative solutions toward achieving sustainable food systems

Co-design of solutions
and stewardship

2

- An innovative, time-saving method for mapping soil properties was developed and used for the creation of soil maps of parts of the Canton of Bern.
- The first version of a GIS-supported platform to manage plot-specific location and cultivation data for inter-farm or regional production planning has been developed and tested.
- A water forecasting and saving program was installed and tested.
- A comparison of cultivation systems was carried out, juxtaposing a method involving intensive tillage with a soil-conserving system based on minimal tillage.

Projects underway

3

Sustainable use of water and soil in the Three Lakes Region (Bernese Seeland)

Moving toward sustainable vegetable production in the Bernese Seeland

Capturing and valorizing the services of the soil

Soil mapping of the Canton of Bern

Solutionscape “Development of Grosses Moos”

The Wyss Academy and the Canton of Bern are jointly setting up a holistic participatory approach to address the multifold challenges in Grosses Moos, an intensively farmed area and former biodiversity hotspot in the Canton of Bern.

Hub Bern: Interview

Tourism regions are both victims and drivers of climate change

The Hub Bern's portfolio currently consists of 15 projects which are carried out in close collaboration with the Canton of Bern. The pillar of the ongoing activities is to address some of Switzerland's most important environmental challenges.



Anja Strahm

Research Scientist and Deputy Head of the Hub Bern, joined the Wyss Academy in May 2021

Given all the regional challenges and current goals of the Hub Bern, why is it important to develop climate neutral tourism projects?

Tourism is one of the contributors to climate change. We know that it is responsible for about eight percent of global greenhouse gas emissions. By far, the most important contribution is made by the arrival and departure of guests, accounting for around fifty percent of tourism emissions. Today, we fly more than ever before: despite a massive impact on global warming, air travel increased steadily in the years before the covid-19 crisis. The reduction in flying caused by the pandemic was only temporary, and it is expected that the share of air traffic in global CO₂ emissions will continue to increase in the future. Most of the costs caused by these emissions are paid by the general public and not by the polluters.

In some regions of Switzerland, tourism is by far the most important economic sector. As a host country, that also attracts guests from overseas, Switzerland has a special responsibility for climate protection. Moreover, the Swiss themselves play an important role in outgoing tourism: we are absolute frequent flyers. Through the development of attractive climate-neutral tourism offers and new forms of work, it is to be hoped that more Swiss people will decide to spend their holidays at home and discover the diversity within their country.



Photo by: Manu Friederich
Amt für Umwelt und Energie des Kantons Bern (AUE) (Office for Environment and Energy of the Canton of Bern), the Centre for Development and Environment (CDE) of the University of Bern and the Regionalkonferenz Oberland-Ost (Regional Conference Oberland-East)

Why did the Wyss Academy choose the famous Jungfrau region for a pilot project about climate neutrality?

The regional Bernese conference Oberland East set itself the goal of becoming a CO₂-neutral tourism region in its 2019 development strategy. This was a great opportunity for the Wyss Academy, together with the Canton of Bern and the University of Bern, to collaborate and support this challenging process. It is also very motivating that one of the leading tourism regions in Switzerland has the will and the drive to tackle the challenge of decarbonization. We are now supporting our local partners with a broad visioning and engagement process, the financing of a regional climate coach and the implementation of incubator projects. In a second step, useful learnings will be compiled for other regions. With its global standing as a UNESCO World Heritage Site, the Jungfrau region seeks to set a good example and contribute significantly to the transformation process on behalf of sustainable tourism.



What are the most specific challenges in mountain tourism compared to other tourism?

Mountainous areas, such as Switzerland, are disproportionately affected by climate change. The consequences could be clearly felt this winter. We have less snow, or snow only in higher regions, and the snowfall period is shorter. In particular, the ski resorts at lower altitudes are affected because they can no longer provide their service throughout the usual ski season. This means that new offers must be created to guarantee the utilization of the infrastructure. Besides, we also have problems with extreme weather events, such as heat waves or heavy rainfall, and thus natural hazards. Permafrost is also melting, which endangers infrastructure and communities due to rockfall, landslides and mudslides.

How do you envision a CO₂ neutral tourism destination in Switzerland?

At the Wyss Academy, we think that the tourism of the future should be more sustainable and have less impact on ecosystems. Tourism needs to slow down and deglobalize. Travelling, also internationally, will always remain an important human need, so it must be possible in the future. However, all of us need to think about how often, how long, how and where we travel as tourists. On the other hand, tourism destinations and other stakeholders need to think about what kind of activities they want to offer and who they want to attract. One option could be to focus more on guests from Switzerland and mainland Europe instead of addressing markets overseas. New, climate-friendly business models have to be developed and tested. Of course, there is the economic argument that we need to have the same number of guests from abroad, or even more, because we have the infrastructure running. But we also observe a strong feeling within the tourism sector and among guests that things must change.

There should be a reliable measurement of the greenhouse gases emitted for all activities, considering the entire journey of a tourist. On this basis, climate strategies should be elaborated, with concrete and efficient reduction measures to achieve the net-zero target by 2050. Locations such as Davos and Arosa are taking part in a pilot project about climate neutral destinations. Hopefully their methodology to measure the total amount of emissions caused by tourists can become the new standard. Last but not least, we think that political regulations are needed for a broad and rapid transformation, which is crucial due to the urgency of the climate crisis.

What partnerships within the economy, civil society, and governmental organizations are necessary to reach these goals?

Tourism as a cross-sector industry is dependent on other sectors. Therefore, it is affected by their specific regulations, such as those from the mobility, housing or energy sectors. There must be strong coordination between different sectors on all levels. All stakeholders on the destination level need to be informed and onboarded. Together, they need to develop a common vision of what they want to offer to their guests and implement the corresponding measures in an effective and coordinated way. The demand side also needs to be sensitized to be able to make responsible decisions. And of course, the political sector must create a conducive legal framework for transition. This can be done, for example, by expanding financial and technical support programs and defining clear targets and standards.

<p>Challenge 1</p> <p>Sustainable human interactions in sensitive nature areas</p> <p>Read more</p>	<p>Challenge 2</p> <p>Accelerating the energy transition</p> <p>Read more</p>	<p>Challenge 3</p> <p>Development of the “Grosses Moos” region</p> <p>Read more</p>
--	--	--

— Our why and how

A visionary approach



The Wyss Academy Approach

Our vision

We want a just and mutually beneficial relation for nature and people.



Our planet is facing existential challenges such as climate change, biodiversity loss, poverty, and inequality. In an increasingly hyperconnected world, these issues cannot be addressed separately. They are interconnected and may have multiple causes. There is no silver bullet answer, as one being's solution can be another being's burden. Meanwhile, untangling those knots may bring surprises and unexpected side-effects. These are known as “wicked problems”.

To deal with these complexities, a new approach is needed. We must address the driving forces behind these challenges by overcoming the dysfunctionalities of the main systems that determine the relationship between nature and people – such as food, the economy, energy, or urbanization. Simply producing more knowledge or making rigorous plans will not do the job.

At the Wyss Academy for Nature, we pursue a novel approach to overcome the growing gap between understanding problems and implementing concrete action. In our four regional hubs in South America, East Africa, Southeast Asia, and Switzerland, we develop our unique method: our “solutionscapes”. Taking a living lab approach that brings global solutions to local landscapes, we create opportunities to move from insight to action. Researchers and other knowledge holders engage with multiple stakeholders to co-design, test, and incubate solutions that have the potential to enable and drive systemic change.

Our mission

We develop and catalyze solutions that transform the relationship between people and nature. We use the power of knowledge and the creativity of engagement to empower agents of change.



Engagement

We help create a shared vision and a coalition for change. The co-design process involves all relevant stakeholders, from science and government to businesses and local groups. Special attention is given to engaging different actors and ensuring that marginalized groups, as well as their interests and topics, are heard and included in the debate. Relevant insights are shared with global partners.

Knowledge

Developing a shared understanding of the socio-environmental system, including its dynamics and trajectories, is an important basis for negotiating a common vision of the future. This understanding is based on scientific research and on local knowledge.

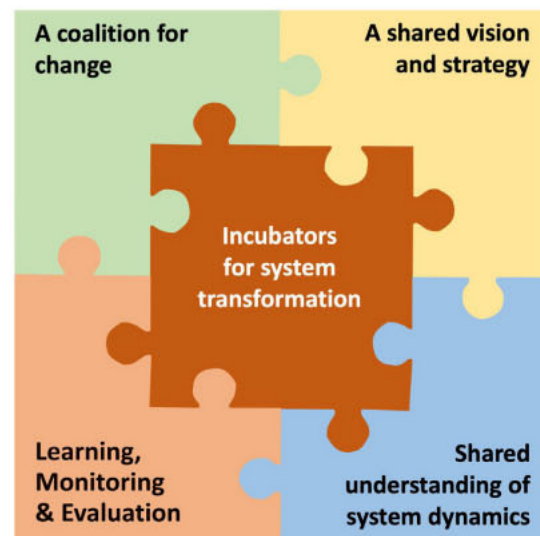
Catalyzing Solutions Through Incubators

Guided by our vision of the changes needed today to achieve a better future, we run incubator projects to catalyze solutions. These are designed and tested within our solutionscapes. They may consist of economic, technical, social or policy-related innovations. But innovation is not limited to a single project; it also arises from the interactions happening within a system. By avoiding unintended trade-offs and maximizing synergies between projects, we aim to set the system on a trajectory toward environmental and social justice.

Solutionscapes

Coined by the Wyss Academy for Nature, “Solutionscapes” refers to a unique approach to solving the challenges that currently define the relationship between people and nature in landscapes under pressure. Its fundamental goal is to achieve concrete and positive impacts on landscapes – on the ground, by taking into account the specificities of the region, and beyond, by transcending geographic boundaries and assuming a holistic view and reach of global interactions.

Solutionscapes are the Wyss Academy’s answer to today’s wicked problems. The way of developing new solutions to complex challenges – by breaking down silos and engaging local communities, policymakers, and scientists to jointly transform ideas into action. Taking the form of a living lab, this experimental approach tests potential solutions in real-life environments. It includes establishing a coalition for change with key stakeholders, co-creating a shared vision based on scientific understanding of system dynamics, testing incubators and triggering feedback loops for system transformation, as well as monitoring, evaluation, and learning to enable adaptation and scaling of promising innovations.



— Our why and how

How we achieve our mission

Strategy

The Wyss Academy is committed to identifying and implementing local solutions to urgent global challenges. For this purpose, it breaks down the silos of research, policy, and practice, and offers pathbreaking opportunities for collaboration. In 2022, we started to pursue our strategy and to put in practice a detailed plan for our activities.



In the period between 2022 and 2024, three strategic goals are guiding our work. Being closely interconnected, they are equally important and essential in fulfilling our mission. These overarching goals comprise twelve key objectives that guide our projects and actions toward achieving concrete results in the coming years. Our strategic goals are also important vehicles for collaboration in self-managed and adaptive teams that connect business units and external partners and include different cultures. The implementation of these goals is ensured through our joint work streams.

Failing forward

Navigating change in a world full of wicked problems can only succeed if we learn from failures and from the unexpected. We continuously need to improve, adapt our understanding, and search for innovation. This is why the Wyss Academy is setting up a system for learning, monitoring, and evaluation that will enable us to measure our progress and the achieved impact.

Strategy and values

Read more



Structure and team

Read more



— Our why and how

How we achieve our mission

Strategy

The Wyss Academy is committed to identifying and implementing local solutions to urgent global challenges. For this purpose, it breaks down the silos of research, policy, and practice, and offers pathbreaking opportunities for collaboration. In 2022, we started to pursue our strategy and to put in practice a detailed plan for our activities.



In the period between 2022 and 2024, three strategic goals are guiding our work. Being closely interconnected, they are equally important and essential in fulfilling our mission. These overarching goals comprise twelve key objectives that guide our projects and actions toward achieving concrete results in the coming years. Our strategic goals are also important vehicles for collaboration in self-managed and adaptive teams that connect business units and external partners and include different cultures. The implementation of these goals is ensured through our joint work streams.



Goal 1 – Demonstrating new pathways for mutually beneficial impacts

Our first strategic goal is to find solutions to conflicts between nature and people within twelve different landscapes around the world. We co-design pathways for the transformation of systems – such as food and energy – by promoting innovations that may be useful for other environments and at a global level.

We are convinced that the conservation of nature must go hand in hand with improving people's livelihoods. Therefore, we want to create prototype solutions capable of transforming vicious cycles that lead to increasing environmental and social degradation into regenerative, virtuous cycles.

Monitoring and evaluating processes and failures ensures that we constantly learn and adapt. Lessons are shared among our regional hubs and across different networks.



Goal 2 – Inspiring a new social contract with nature

Our second strategic goal is to inspire a new deal between people and nature that encompasses civil society, the economy, and politics, from local to national and global levels.

This means that people and organizations from all parts of society increasingly understand that reconfiguring our relationship with nature is a vital survival strategy for humanity – and that we need to act now.

Our aim is to engage people from society, business, and politics in a science-based dialogue to establish a shared understanding of challenges and a common vision for the future. On that basis, we establish strategic alliances for systems change, share and scale up available solutions and pathways, and influence policy.



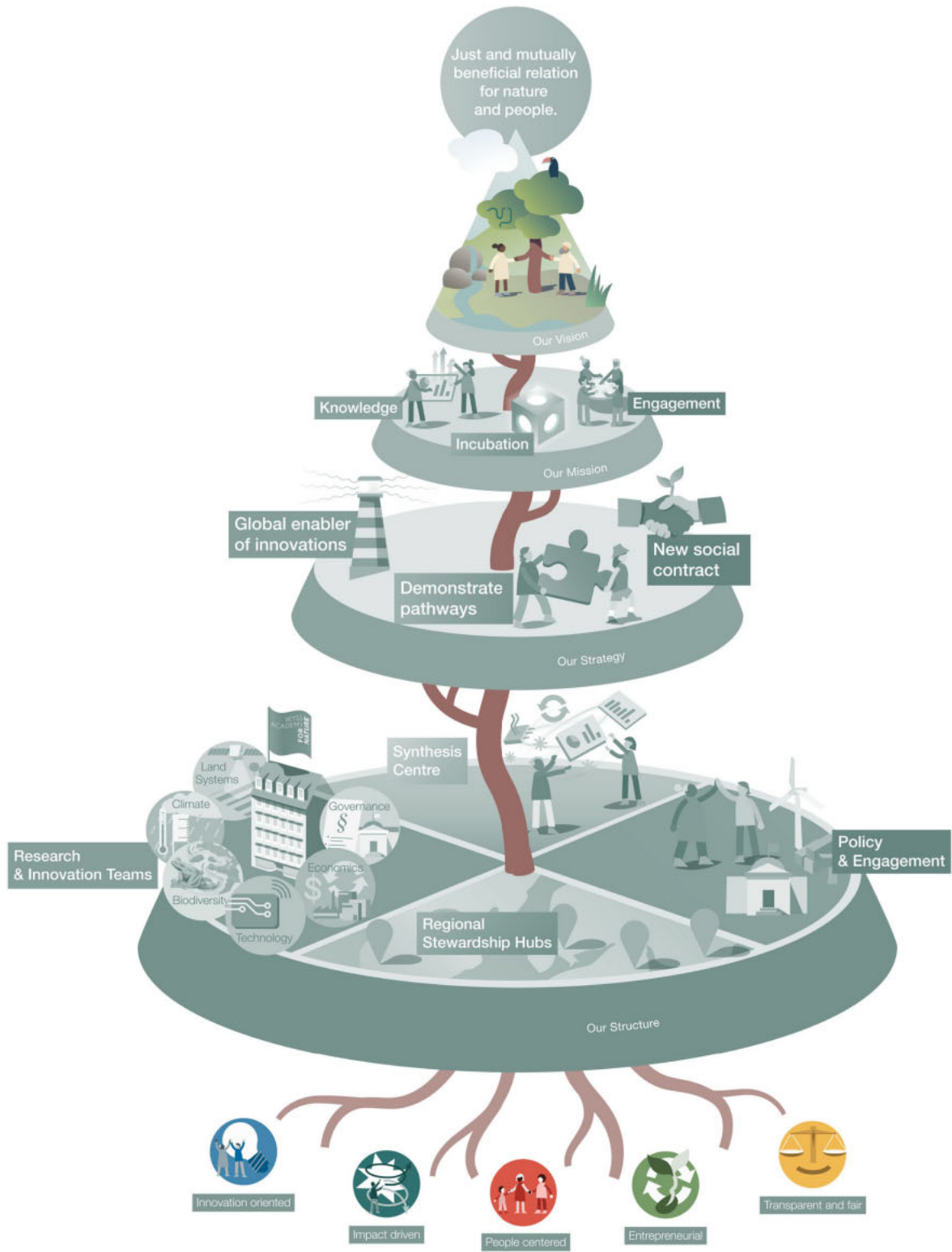
Goal 3 – Global enabler of innovations

Our third strategic goal is to establish the Wyss Academy as a global enabler of innovations that will help transform the relationship between people and nature in order to create a world that is more sustainable and just.

We believe that innovative solutions also require new and innovative organizations. The Wyss Academy has the opportunity to bring together interdisciplinary research and innovation teams, policy shapers, and action at the regional hubs within a single organization. It encourages these units to collaborate directly and in new ways, creating added value.

We want everyone to work productively and with joy in an adaptive and entrepreneurial spirit, focused on innovation and learning. Moreover, we share our discoveries, knowledge, and practical expertise with all our stakeholders, and create a culture of innovation.

Our aims are to build trusted partnerships, to become a key reference for sustainability science, and to be a role model in how we organize ourselves, how we implement innovation, and how we foster people and culture.



Our values serve as a guiding star for our daily interactions at work and for taking decisions that affect the success and impact we strive to have as an organization, in collaborations and partnerships, and in our everyday work life. They are derived from the Wyss Academy’s mission and were defined in a number of iterations and consultations across the staff members, the directorate, and the board of the Wyss Academy.

We are convinced of their potential to shape our actions for the better. Through continuous reflection and adaptation of our behaviors according to our values, we can ensure that we stay on track in our efforts to achieve a more harmonious and sustainable relationship between human beings and nature.

Therefore, at the Wyss Academy, acting in accordance with our values is expected at all times. We especially respect them in our social interactions – formal and informal – with colleagues and partners, in meetings, throughout project design and implementation, and whenever we represent our organization.



People centered

We encourage and support diversity, wellbeing, and personal growth, promoting talent and fruitful partnerships.

Key features:

Respect | Empathy | Inclusion | Wellbeing | Meaningful relationships



Entrepreneurial

We courageously and responsibly harness opportunities and find innovative ways to accelerate our impact, while remaining adaptive and resilient in the face of challenges.

Key features:

Vision | Responsibility for actions | Adaptability | Efficiency and Effectiveness | Courage



Transparent and fair

We apply the highest ethical, scientific and technical standards throughout our work and communicate openly, truthfully and respectfully, exchanging and sharing knowledge for empowerment.

Key features:

Openness | Truth | Reflection | Justice | Empowerment



Impact driven

We strive for our ambitious goals collaboratively, with enthusiasm and perseverance, leaving positive imprints on the planet.

Key features:

Accountability | Evidence | Experimentation | Systems oriented | Transformation



Innovation oriented

In reaching out to others, we co-create with curiosity, discover, foster creativity, and communicate our successes and failures so that we can learn from them.

Key features:

Curiosity | Co-creation | Creativity | Prototyping | Learning

———— Who we are

Structure and team

At the Wyss Academy for Nature, we work on developing, testing, and scaling up innovative solutions that advance nature conservation and human wellbeing at the same time. Our organizational structure reflects our belief that the disruption we seek can be unleashed by a new and innovative form of organization. We have the opportunity to bring together research and innovation teams, policy shapers, and action at our regional hubs on four different continents. All units are encouraged to collaborate directly, with flat hierarchies and in role-based ways. Together, we strive to become a role model in terms of corporate governance.

Structure



Team

Board



Prof. Dr. Christian Leumann
President of the Board and Rector of the University of Bern



André Nietlisbach
Vice-President of the Board and Secretary General of the Ministry of Economic Affairs, Energy and the Environment of the Canton of Bern



Dr. h.c. Hansjörg Wyss
Board member, Entrepreneur and Philanthropist, Wyss Foundation



Johann Schneider-Ammann
Board member, Entrepreneur and Politician, Former Federal Councillor



Dr. Molly McUsic
Board member and President of the Wyss Foundation



Prof. Dr. Peter Messerli
Board member and Director, Professor for Sustainable Development

Management



Prof. Dr. Peter Messerli
Director

Peter Messerli is a geographer and land system scientist working on sustainable development of human-environment systems. [read more](#)



Tatjana von Steiger
Head of Global Policy Outreach

Tatjana von Steiger works at the interface between norms and their implementation in global sustainability policy. As an... [read more](#)



Matthias Schmid-Huberty
Chief Operating Officer

A business economist and expert consultant in the fields of management, governance, and anti-corruption in the non-profit sector,... [read more](#)



Prof. Dr. Edouard Davin
Professor of Climate Scenarios for Sustainable Development

Edouard Davin studies the role of the terrestrial biosphere in the climate system. His work has shown, among other things,... [read more](#)



Dr. Olivier Jacquat
Head of Hub Bern

After earning his PhD in environmental science, Olivier Jacquat has enjoyed working at the interface between applied research,... [read more](#)



Dr. Eva Ludi
Co-Head of Regional Hubs

Her objectives for the Wyss Academy? Eva Ludi, a geographer by training, combines her deep knowledge, insights, and extensive... [read more](#)



Prof. Dr. Andreas Heinimann
Co-Head of Regional Hubs

As an internationally renowned land system scientist, Andreas Heinimann moves with ease between the academic and the policy... [read more](#)

Advisory Comittee

Valérie Courtois

Vice-chair of the Advisory Committee. Specializes in indigenous issues, forest ecology, and ecosystem-based management and planning

Brian O'Donnell

Leading land and wildlife conservationist

Dr. Maja Göpel

Political economist and advocate of sustainable transformation

Dr. Adrienne Grêt-Regamey

Environmental scientist and landscape planner

Dr. Sofia Heinonen

Vice-chair of the Advisory Committee. Activist for nature and Executive Director of Rewilding Argentina

Dr. Nathalie de Noblet

Research Director at CEA (France) and Lead Author of the IPCC Special Report on Climate Change and Land

Dr. Roland Siegwart

Chair of the Advisory Committee. Professor of Autonomous Systems at ETH Zurich and Founding Co-Director of Wyss Zurich

Dr. Youba Sokona

Vice-Chair of the Intergovernmental Panel on Climate Change (IPCC). Specializes in issues of energy, the environment, and sustainable development

— Our why and how

Partners 2022

The Wyss Academy unites a team of specialists with unique personalities and a shared mission: to contribute to viable long-term improvements with high professionalism and great personal commitment. We work closely with partners from our global network of organizations offering complementary scientific, social, and local skills. Together we are even more powerful.

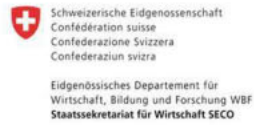
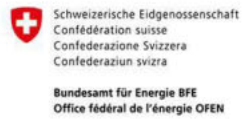
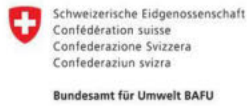
Funders and Partners

Funders



Funding Partners

≡ Menu

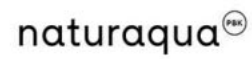
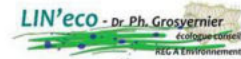


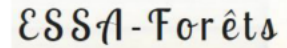
Institutional Partners



Implementation Partners

≡ Menu





Membership Partners





Reporting

Financial overview

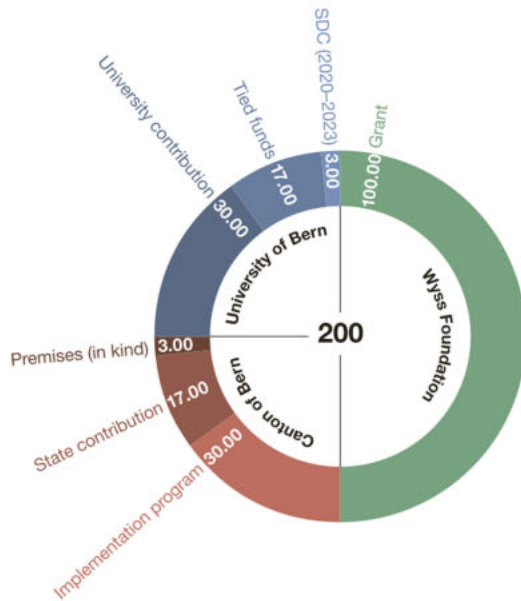
In the third year of operation, the Wyss Academy for Nature registered an implementation rate of 61% (CHF 13.4 million) in posting an ordinary earning of CHF 8.0 million. The activities in fiscal year 2022 were centered around scaling up the Regional Stewardship Hubs and the Research and Innovation teams and around the build-up of competence centers supporting the field operations.

The Wyss Academy has absorbed the doubling of its workforce in 2022 to over 60 staff members. Despite and, to a certain extent, due to this impressive growth, the implementation of the planned projects fell short compared to the ambitions expressed in the 2022 budget. The available financial resources were again not fully applied, due to a continued lack of access due to COVID-19 travel restrictions or political tensions in some regional areas, among others. The resulting additional equity will be reduced again during the coming years by further scaling foreseen for the projects in the Hubs of the Global South.

Finances

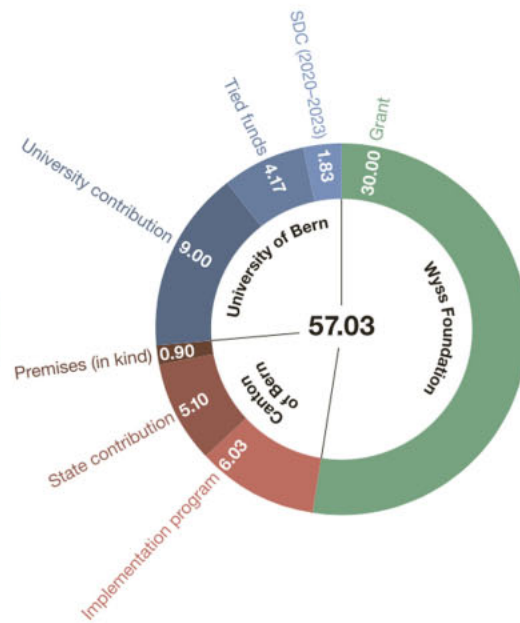
Committed Funding 2020–2029

in million CHF



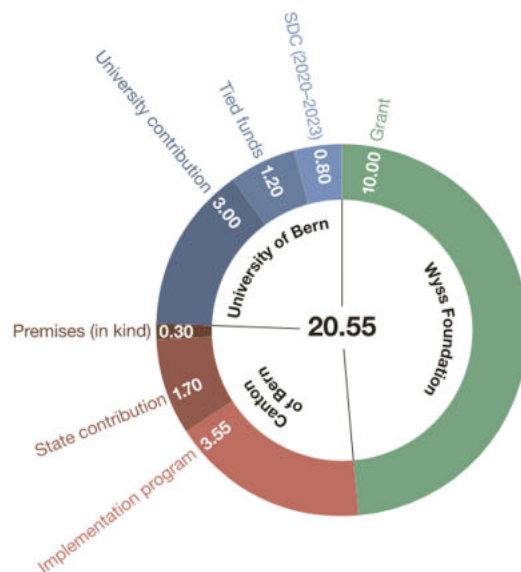
Contributed Funding 2020–2022

in million CHF



Core Funding 2022

in million CHF



in million CHF

Donor	Purpose	Overall Committed	Average per year	Income 2020	Income 2021	Income 2022	Total 2020-2022	Remaining commitment 2023-2029
Wyss Foundation	Grant	100.00	10.00	10.00	10.00	10.00	30.00	70.00
Canton of Bern	Implementation program	30.00	3.00	0.57	1.91	3.55	6.03	23.97
	State contribution	17.00	1.70	1.70	1.70	1.70	5.10	11.90
	Premises (in kind)	3.00	0.30	0.30	0.30	0.30	0.90	2.10
University of Bern	University contribution	30.00	3.00	3.00	3.00	3.00	9.00	21.00
	Tied funds	17.00	1.70	1.72	1.25	1.20	4.17	12.82
SDC	SDC (2020-2023)	3.00	0.30	0.28	0.75	0.80	1.83	1.18
Total		200.00	20.00	17.57	18.91	20.55	57.03	142.97

Income Statement

	CHF
Donor contributions	17,000,000
Income for implementation program Hub Bern	3,550,450
Other third-party funding for implementation program Hub Bern	314,568
Other third-party funding for projects, research and services	532,060
Other operating income	12,486
Total operating income	21,409,564
Project expenses	-6,349,037
Personnel expenses	-6,096,911
Other operating expenses	-699,402
Depreciation of tangible assets	-200,359
Amortization on intangible assets	-59,415
Total operating expenses	-13,405,124
Operating result	8,004,440
Financial result	-2,801
Ordinary result	8,001,639
Extraordinary result	0
Result of the year	8,001,639

Balance Sheet

Assets	CHF
Cash and cash equivalents	22,621,092
Current financial assets	10,036,533
Receivables from services	2,664,132
Other short-term receivables	1,302,018
Advance payments Regional Hubs	76,636
Prepayments and accrued income	475,497
Current assets	37,175,908
Tangible fixed assets	723,472
Intangible assets	305,096
Non-current assets	1,028,568
Total assets	38,204,476

Liabilities and foundation capital	CHF
Payables from goods and services	2,761,308
Accrued liabilities and deferred income	1,898,853
Short-term provisions	556,975
Current liabilities	5,217,136
Foundation capital	10,000,000
Result carried forward	14,985,701
Result of the year	8,001,639
Total foundation capital	32,987,340
Total liabilities and foundation capital	38,204,476

Total assets **38,204,476**

Liabilities and foundation capital **CHF**

Payables from goods and services	2,761,308
Accrued liabilities and deferred income	1,898,853
Short-term provisions	556,975
Current liabilities	5,217,136
Foundation capital	10,000,000
Result carried forward	14,985,701
Result of the year	8,001,639
Total foundation capital	32,987,340

Total liabilities and foundation capital **38,204,476**

The Income Statement and Balance Sheet refers to the business year: 01/01/2022 - 12/31/2022.
The financial statements were established in accordance with the Swiss GAAP FER standard.

Download the Financial Report

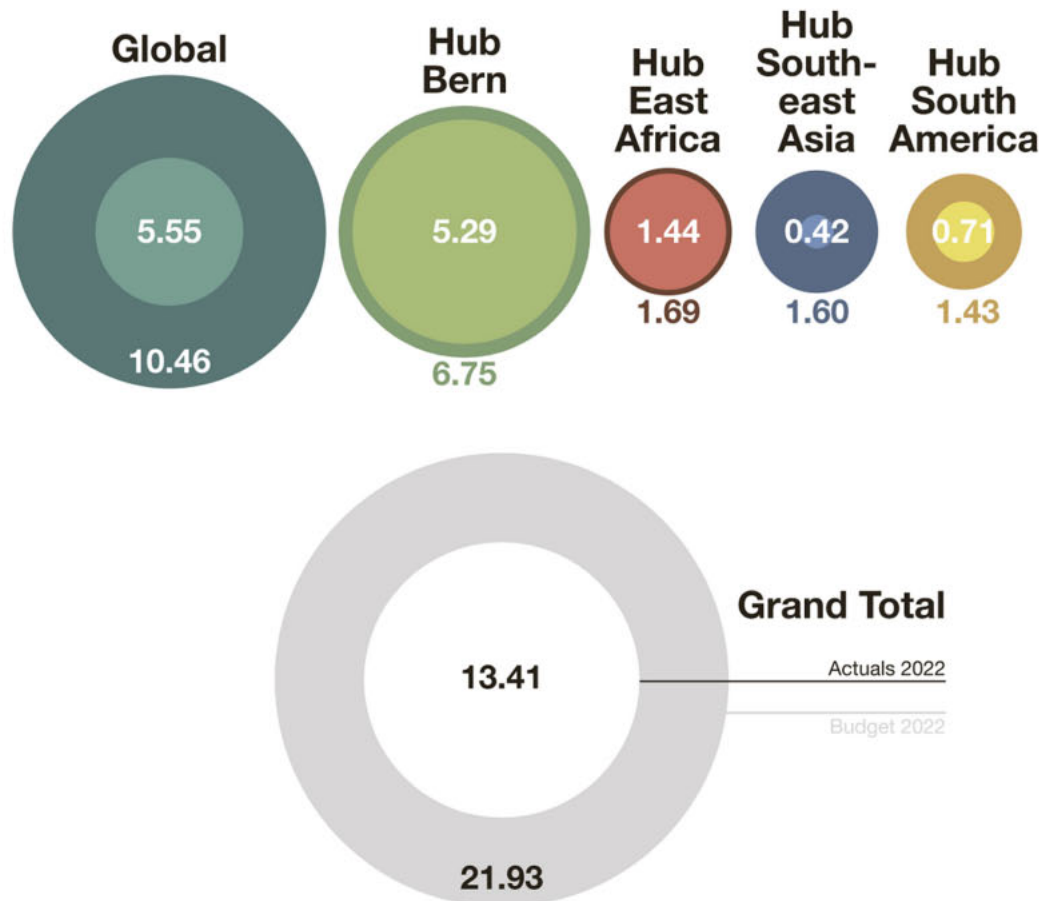
For detailed information, please refer to the full 2022 Financial Report.

[Download](#)

Implementation Report

Spending 2022: Implementation by regions

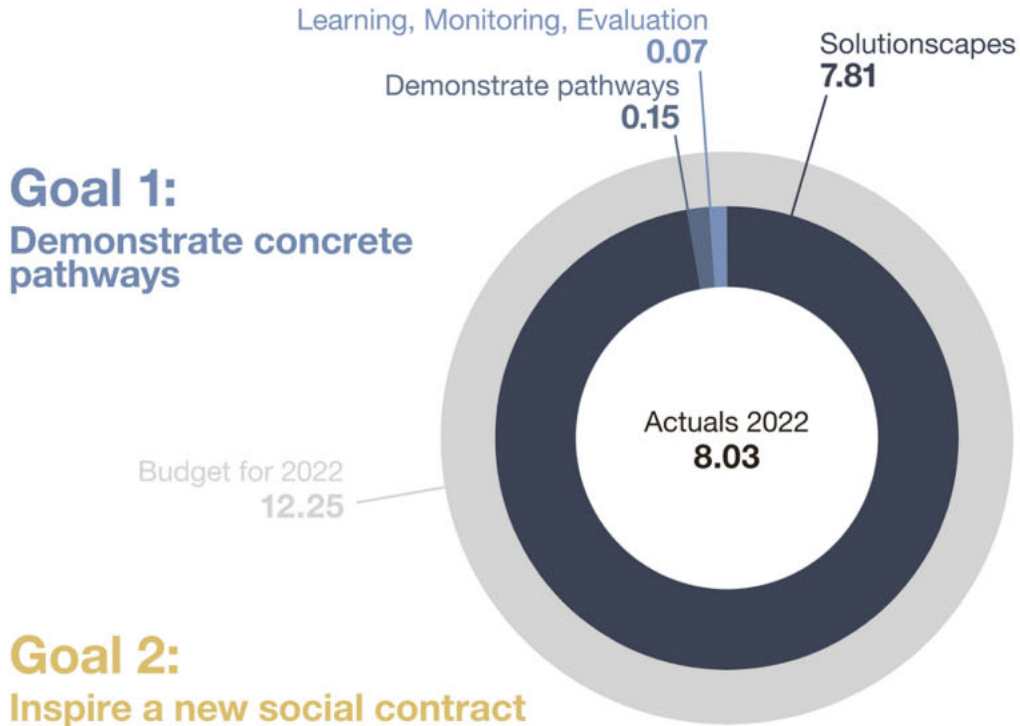
in million CHF



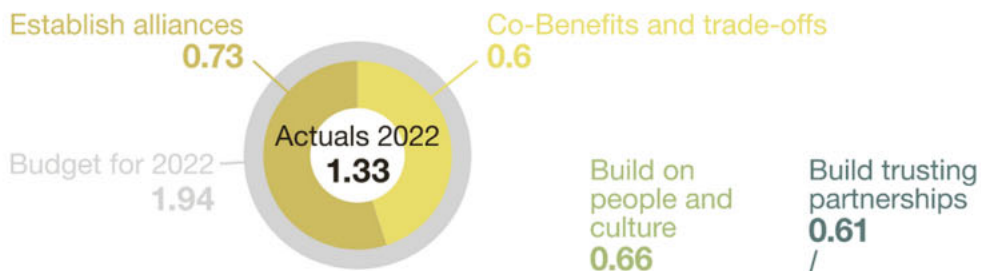
Looking at the project expenses from a regional perspective, 40% was allocated to the Hub Bern, while the Hubs in East Africa, South-East Asia and South America accounted for nearly 20% of spending. During 2022, just over 40% of the project cost was allocated to activities led by the Wyss Academy head office, serving all the four Hubs, as well as the global approach of the institution and the onboarding and design of its systems.

Spending 2022: Implementation by strategic Goals and Objectives

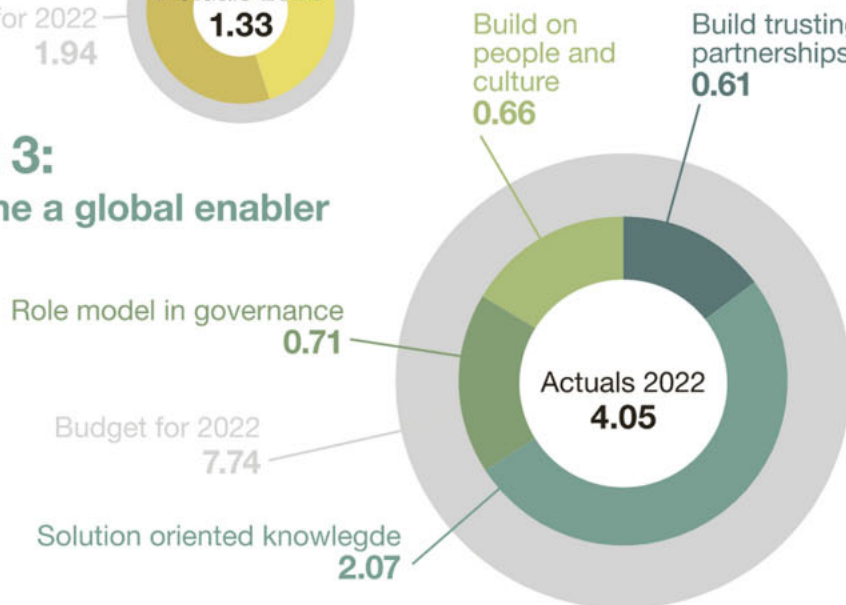
in million CHF



Goal 2: Inspire a new social contract



Goal 3: Become a global enabler



In 2022, we started to implement our mission along twelve strategic objectives and nine regional challenges, which are addressed through 80 active projects within the framework of the Wyss Academy Strategy for 2022-2024. The total expenditure for all objectives and projects amounted to CHF 13.4 million in 2022. Of this sum, CHF 7.8 million was dedicated to concrete solutions addressing the nine challenges across all Hubs. The combined cost of demonstrating concrete pathways for mutually beneficial impacts on nature and people according to Strategic Goal 1 amounted to CHF 8.0 million, representing 60% of the organization's resources. Additionally, close to 10% of the investments in 2022 (CHF 1.3 million) were spent on efforts to achieve a new social contract (Strategic Goal 2). Finally, CHF 4 million, or about 30% of the spending, was dedicated to preparing the ground for innovations and impact, aiming at the institutional goal of becoming a global enabler for innovations and a role model on governance.

The Wyss Academy in numbers (2022)

in million CHF



With a further increase in the number of employees, the outputs of the Wyss Academy also started to gain momentum. Staff not only doubled within one year, but also grew more diverse in terms of nationalities, continents of origin, ages and genders. While the publications, engagement activities and communicative outreach of the Wyss Academy grew accordingly, more than 80 active projects were continued or launched in 2022. The strengthening of interactions across our Hubs is reflected by a considerable increase in travel to our living labs, which became possible again and is crucial to the approach and operations of the Wyss Academy.

Imprint

Publisher

Wyss Academy for Nature
at the University of Bern
Kochergasse 4
3011 Bern, Switzerland

www.wyssacademy.org

Contact

Seta Thakur
Head of Communication

+41 31 544 80 40

seta.thakur@wyssacademy.org

Acknowledgements

Responsible for the content of the annual report

Natalia Peralta, Project Manager Annual Report 2022
Matthias Schmid-Huberty, COO

Responsible for the content of the financial report

Matthias Schmid-Huberty, COO

Visual Consultancy, design

Natalia Peralta, Social Media & Design

Concept and design

Keim Identity GmbH

www.keimidentity.ch

Consultancy, design and implementation (Financial Report)

LAB visual concepts GmbH, Zurich

www.labvisualconcepts.ch

Co work English and German Texts

Prof. Dr. Peter Messerli, Matthias Schmid-Huberty, Prof. Dr. Andreas Heinimann, Julia Cunha, Tatjana von Steiger, Dr. Fiona Stappmanns, Dr. Olivier Jacquat, Anja Strahm, Cyrill Hess, Miguel Saravia, Dr. Armando Valdés-Velásquez, Dr. Benson Okita, Sheila Funnell, Prof. Dr. Edouard Davin, Khalil Bitar, Christine Keim, Eleanor Kraft, Gabriela Müller, Lorenz Zeller, Madlaina Michelotti, Svitlana Lavrenciuc.

English text editing and proofreading

Marlène Thibault, Centre for Development and Environment (CDE), Eleanor Close Kraft, Christine Keim, Madlaina Michelotti, Svitlana Lavrenciuc, Frédéric Anklin, Julia Cunha.

German text editing and proofreading

Marlène Thibault, Centre for Development and Environment (CDE), Felicitas Bachmann, Ramona Michel, Christine Keim.

Translation

Marlène Thibault, Centre for Development and Environment (CDE) Apostroph Group.

Programming

Marcel Heinke

Disclaimer

We control the external links carefully. Nevertheless, we cannot assume any liability for the content of these links. The operators of the linked pages are solely responsible for their content.

Copyright Images and Text

The Wyss Academy for Nature holds the copyright and usage rights for most of the images. Further use of images and text requires the consent of Wyss Academy for Nature and is only permitted with mention of copyright details. All images provided by other authors were granted to Wyss Academy for Nature for use in its Annual Report 2022.

Data protection

Data protection and the protection of privacy are very important to Wyss Academy for Nature. We do not pass on data. For our web statistics and to constantly improve our online offer, we use Logaholic.